



Product Catalog

Split System Air Conditioners Odyssey™

Cooling Condenser — 6 to 25 Tons — 60 Hz

Air Handler — 5 to 25 Tons — 60 Hz



May 2017

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Introduction



Trane's reputation for providing quality comfort solutions continues with the development of the next generation Light Commercial Odyssey Split Systems.

With wide network availability, flexible applications, installation ease, built-in reliability and easy servicing, Odyssey will meet any number of customer applications. Add to that Trane's outstanding customer service and you have the formula to make Odyssey the clear choice for continued customer satisfaction.

Wide network availability

A broad distribution network provides owners, maintenance personnel, contractors, etc., the means to get their hands on equipment when they need it. Whether it's an emergency replacement or a new construction project in its infancy stages, Odyssey products meet an array of needs at the right time and right price.

Flexible applications

No matter what the application, Odyssey provides the solution. A broad array of models and tonnages are available with single or dual compressors, single or dual circuits and numerous accessories. Condensing units can be installed on the ground or on a rooftop along with extended piping runs, while air handlers can be free discharge on the ground or horizontally suspended with long duct runs from a ceiling. Should application challenges arise, Odyssey delivers.

Easy to install

Small footprints and low weights combined with factory installed components like TXVs, filter driers, etc., reduce installation time and cost. Colored and numbered wiring and factory tested units make Odyssey the right choice.

Built-in reliability

Keeping in mind that productivity only occurs when equipment is operational, Trane has taken the steps to ensure that Odyssey is up and running. Early indicators such as phase/reversal monitors and loss of charge protection provide diagnostics which prevent failure and provide years of worry-free service and operation.

Easy to service

When preventive maintenance or service is required, technicians will find efficient access to both air handlers and condensers. Panels provide complete, easy access coupled with standardized cabinets in which all components are located in proximity. Odyssey's improved design results in minimum service times and costs.

With these capabilities, Odyssey provides customers high efficiency and superior performance for the best all-around value in the market today.



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Revision History

- General Data updated for AHRI certification information.
- Minor running edits included.
- Mechanical Specifications General information includes additional AHRI certification information.
- Correction to Evaporator fan performance — TWE180 — standard air handler, see [Table 58, p. 73](#).



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Features

Split System Overview

Unlike typical split systems on the market, Odyssey offers easy servicing, built-in reliability, ease of installation and outstanding customer service. And because today's owners are very cost-conscious when it comes to service and maintenance, the Odyssey Split System was designed with direct input from service contractors. This valuable information helped to design a product that would get the service person off the job quicker and save the owner money.

Flexible Applications

Odyssey offers outstanding standard features enhanced by a variety of factory and field installed options, multiple control options, rigorously tested proven designs and superior product and technical support. Because of this, Odyssey offers ultimate flexibility. Units are built to order in our standard "shortest in the industry" ship cycle time. Odyssey is available with single, dual and manifolded compressor options. Single compressor outdoor units feature a single refrigeration circuitry, lowering job installation costs by requiring only one set of refrigerant lines.

Equally important, Odyssey offers single refrigerant circuit/capacity unloading models. The unloading units feature dual manifolded scroll compressors with two stages of capacity modulation and a single refrigeration circuit. Dual compressor/dual circuit models give true stand-by protection - if one compressor fails, the second will automatically start-up. Also, the first compressor can be serviced without shutting down the unit since the refrigerant circuits are independent. Dual compressor models also save on energy costs. During light load conditions, only one compressor will operate to save energy.

On select air handlers, a factory installed variable frequency drive (VFD) is available. These 2-Speed and Single Zone VAV (SZVAV) solutions, combined with condensing units that have multiple compressors, provide increased part load performance (IEER) when conditions are not at the max design condition. Additionally, some states have adopted codes that require this type of performance. Odyssey units are built with installation in mind. With a smaller footprint, the outdoor unit takes up less space and weighs less, making its installation more efficient and economical. Our indoor air handlers are built to be installed in confined spaces, fitting through standard doorways and freight elevators.

Unmatched Product Support

One of our finest assets, Trane Sales Representatives are a support group that can assist you with:

- Product
- Application
- Service
- Training
- Special Applications
- Specifications
- Computer Programs and much more

Rigorous Testing

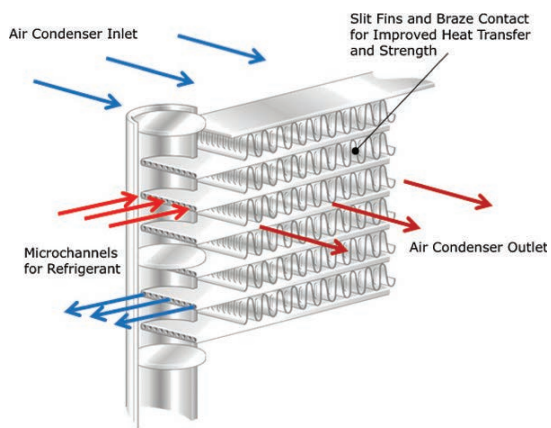
Our units are rigorously rain tested to ensure water integrity. Actual shipping tests are performed to determine packaging requirements. Units are test shipped around the country to determine the best packaging. Factory shake and drop tests are used as part of the package design process to help assure that the unit arrives at the job site in top condition. Rigging tests include lifting a unit into the air and letting it drop one foot, assuring that the lifting lugs and rails hold up under stress. A 100% coil leak test is performed at the factory. The condenser coils are leak tested at 660 psig and evaporators to 450 psig. All parts are inspected at the point of final assembly. Sub-standard parts are identified and rejected immediately. Every unit receives a 100% unit run test before leaving the production line to ensure it lives up to rigorous Trane requirements.

Other Features

Microchannel Condenser Coil

Microchannel condensing coils are all-aluminum coils with fully-brazed construction. This design reduces risk of leaks and provides increased coil rigidity — making them more rugged on the jobsite. Their flat streamlined tubes with small ports and metallurgical tube-to-fin bond allow for exceptional heat transfer. Microchannel all-aluminum construction provides several additional benefits:

- Light weight (simplifies coil handling)
- Easy to recycle
- Minimize galvanic corrosion



Standard and Optional Features

Figure 1. Compressors

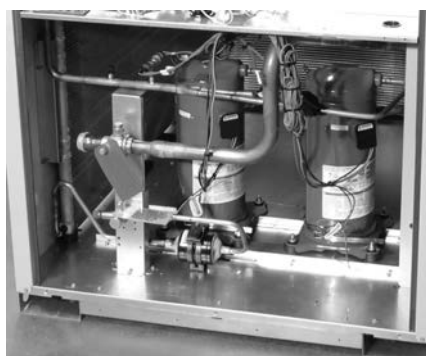


Figure 2. Belt drive motor



Figure 3. Easy access to terminal board



2-Speed VFD — A variable frequency drive is used to reduce the supply fan motor speed to 66% of its full capacity during part load cooling conditions.

Airflow Distribution — Odyssey can replace an older machine with old ductwork and, in many cases, improve the comfort through better air distribution.

Anti-Short Cycle Timer — Provides a 3 minute minimum "ON" time and 3 minute "OFF" time for compressors to enhance compressor reliability by assuring proper oil return.

Belt Drive Motors — For additional static requirements, Odyssey Split Systems offer standard belt drive motors to meet and exceed a wide range of airflow needs.

Colored And Numbered Wiring — Save time and money tracing wires and diagnosing the unit.



Compressors — Odyssey Split Systems contain the best compressor technology available to achieve the highest possible performance. Dual compressors perform very well under part load cooling conditions and system back-up applications. Dual compressors are available on 6-25 ton models and allow for efficient cooling utilizing 2-stages of compressor operation.

Complete Coat™ Microchannel Condenser Coil — This cathodic, epoxy-type electro-disposition coating is formulated for high edge builds and provides excellent resistance and durability in potentially corrosive environments due to alkalies, acids, alcohols, petroleum, seawater, salty air, etc. Available for Microchannel units only.

Convertible Units — The air handlers ship in a horizontal configuration. They can be easily converted to vertical by simply repositioning the drain pan. Units come complete with duct flanges so the contractor doesn't have to field fabricate them. These duct flanges are a time and cost saver.

Crankcase Heaters — These band heaters provide improved compressor reliability by warming the oil to prevent migration during off-cycles or low ambient conditions.

Dual Sloped Drain Pans — Every Odyssey unit has a non-corrosive, removable, double sloped drain pan that's easy to clean and reversible to allow installation of drain trap in two positions on either side of the unit.

Easy Access Low Voltage Terminal Board — Odyssey's Low Voltage Terminal Board is external to the line voltage electrical cabinet. It is extremely easy to locate and attach the thermostat wire and test operation of all unit functions. This is another cost and time saving installation feature.

Electric Heaters — Electric heat modules are available in a variety of voltages and capacities.

Foil Faced Insulation — All internal air handler surfaces have cleanable foil-faced insulation. All edges are either captured or sealed to ensure insulation fibers do not get into the airstream.

Hail/Vandal Guards — These coil guards shall be either factory or field installed for condenser coil protection. This feature protects the condenser coil from vandalism and/or hail damage. When ordered factory installed, it also adds additional shipping protection.

High/Low Static Motor — Available on many models, this high static motor accessory extends the capability of the standard unit.

High Pressure Control — All units include High Pressure Control as standard.

Low Ambient — Provides ability to cool space when outdoor ambient is below 50°F. Choice of fan on/off or modulating control.

Low Ambient Cooling — All Odyssey microprocessor units have cooling capabilities down to 0°F as standard. Electromechanical models have cooling capabilities to 50°F as built, or to 0°F by adding an optional low ambient kit.

Low Voltage Connections — The wiring of the low voltage connections to the unit and the zone sensors is as simple as 1-1, 2-2, and 3-3. This simplified system makes it easy for the installer to wire.

Phase Monitor/Reversal Protection — Phase monitor shall provide 100% protection for motors and compressors against problems caused by phase loss, phase imbalance, and phase reversal. Phase monitors are equipped with an LED that provides an ON or FAULT indicator.

Quick-Access Panels — Remove a few screws for access to the standardized internal components and wiring.

Single Point Power — A single electrical connection powers the unit.

Single Side Service — Single side service is standard on all units.

Single Zone Variable Air Volume (SZVAV) — A variable frequency drive is used in conjunction with the ReliaTel Options module to provide supply fan motor speed modulation. For SZVAV control, the drive will accelerate or decelerate as required to meet the Zone Cooling demand. In order to maximize energy savings, the VFD will be held at minimum speed until the load in the zone requires the speed to increase. The supply fan speed will be reduced to a minimum of 58%¹ during ventilation and part load cooling demands, and 80% during full load cooling demands with the ability to fully modulate. Units with SZVAV control will utilize a potentiometer on the

¹. 64% for part load and 83% for full load if a max speed of less than 44.5 Hz is desired.

Options module to easily set the commissioning maximum airflow point by adjusting the 0-10 VDC output signal sent to the VFD.

Standardized Components — Components are placed in the same location on all Odyssey units. Because of these standardized components throughout the Odyssey line, contractors/owners can stock fewer parts.

Thermal Expansion Valve with Bypass Check Valves — This feature is standard on all indoor units.

Unit Cabinet — The compact cabinet takes up less room and is less costly to ship. It's cabinet design also ensures water integrity.

Table 1. Odyssey features – standard and optional

	Standard Features	Options ^(a)	
		Factory Installed	Field Installed
1-year Limited Parts Warranty	X		
5-year Limited Compressor Warranty	X		
2-Speed Variable Frequency Drive		X	
Anti-Short Cycle Timer	X		
Belt Drive Motors	X		
Colored and Numbered Wiring	X		
Complete Coat™ Microchannel Condenser Coil		X	
Compressor Discharge Temperature Limit (DTL)	X		
Convertible Airflow	X		
Crankcase Heaters	X		
Easy Access Low Voltage Terminal Board (LTB)	X		
Electric Heaters			X
Filters	X		
Foil-Faced and Edge Captured Insulation	X		
Hail/Vandal Guards		X	X
High Pressure Control	X		
High Static Motor Kit ^(b)			X
Hot Gas Bypass			X
IAQ Dual Sloped and Removable Drain Pans	X		
Liquid Line Refrigerant Drier	X		
Low Ambient Cooling			X
Low Ambient Cooling to 0°F on Microprocessor Models ^(c)			X
Low Ambient Cooling to 50°F on Electromechanical Models	X		
Low Pressure Control	X		
Low Static Motor Kit ^(b)			X
Low Voltage Circuit Protection	X		
Phase Loss/Reversal Monitor	X		
Quick Access Panels	X		
Scroll Compressors	X		
Single Point Power	X		
Single Side Service	X		
Single Zone Variable Air Volume (SZVAV)		X	
Standardized Components	X		
Thermal Expansion Valve	X		
Vibration Isolators			X

^(a) Refer to model number description for option availability or contact Product Support.

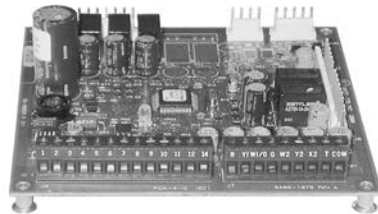
^(b) Available on standard units only. See Accessories chapter for more information.

^(c) Modulating BAYLOAM recommended.

Standard and Optional Controls

ReliaTel™ Controls

Figure 4. ReliaTel board



ReliaTel controls provide unit control for heating, cooling, and ventilating, utilizing input from sensors that measure outdoor and indoor temperature. ReliaTel also provides outputs for building automation systems and expanded diagnostics. Quality and reliability are enhanced through ReliaTel control and logic:

- Prevents the unit from short cycling, considerably improving compressor life.
- Ensures the compressor will run for a specific amount of time which allows oil to return for better lubrication, enhancing the reliability of the compressor.
- Reduces the number of components required to operate the unit, reducing possibilities for component failure.

ReliaTel Makes Installing and Servicing Easy

ReliaTel eliminates the need for field-installed, anti-short cycle timer and time delay relays. The wiring of the low voltage connections to the unit and the zone sensors is as easy as 1-1, 2-2, and 3-3. This simplified system makes wiring easier for the installer.

ReliaTel Makes Testing Easy

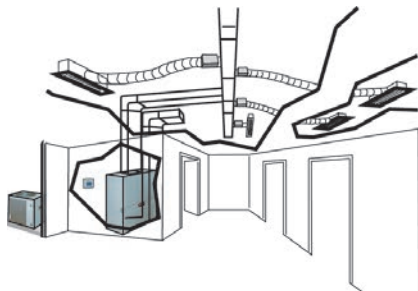
ReliaTel requires no special tools to run the unit through its paces. Simply place a jumper between Test 1 and Test 2 terminals on the Low Voltage Terminal Board and the unit will walk through its operational steps automatically. The unit automatically returns control to the zone sensor after stepping through the test mode a single time, even if the jumper is left on the unit. As long as the unit has power and the “system on” LED is lit, ReliaTel is operational. The light indicates that the controls are functioning properly. ReliaTel features expanded diagnostic capabilities when utilized with Trane Integrated Comfort™ Systems. Some zone sensor options have central control panel lights which indicate the mode the unit is in and possible diagnostic information (dirty filters for example).

ReliaTel Has Other Benefits

- The ReliaTel built-in anti-shortcycle timer, time delay relay and minimum “on” time control functions are factory tested to assure proper operation.
- ReliaTel softens electrical “spikes” by staging on fans, compressors and heaters.
- Intelligent Fallback is a benefit to the building occupant. If a component goes astray, the unit will continue to operate at predetermined temperature setpoint.
- Intelligent Anticipation is a standard feature. It functions continuously as ReliaTel and zone sensor(s) work together in harmony to provide much tighter comfort control than conventional electromechanical thermostats.
- The ReliaTel design is standardized across the board, ensuring a lower cost to owners.

Additional Controls

VariTrac® Building Automation System — When Trane’s changeover VAV System for light commercial applications is coupled with the unit, it provides the latest in technological advances for comfort management systems and can allow thermostat control in every zone served by VariTrac.



Trane Communication Interface (TCI) — This module, when applied with ReliaTel, easily interfaces with the Trane Integrated Comfort System™.

Froststat™ — This control utilizes a capillary bulb embedded in the face of the evaporator coil which monitors coil temperature to inhibit evaporator icing and protect the compressor. Recommended for applications with low leaving air temperatures, low airflow and/or high latent load applications.

LonTalk® Communications Interface — The LonTalk communications interface allows the unit to communicate as a Tracer™ LCI-V device or directly with generic LonTalk Network Building Automation System Controls.

BACnet® Communication Interface (BCI) — The BACnet Communication Interface allows the unit to communicate directly with a generic open protocol BACnet MS/TP Network Building Automation Control System.

Electromechanical — For the simpler job that does not require a building automation system, or expanded diagnostics capabilities, Odyssey offers electromechanical controls. This 24-volt control includes the control transformer and contactor pressure lugs for power wiring.

Zone Sensors/Thermostats— Available in wireless, programmable, automatic and manual styles.

Table 2. Odyssey control options – standard and optional

	Standard Features	Options^(a)	
		Factory Installed	Field Installed
BACnet Communication Interface (BCI)			X
Froststat - Evaporator Defrost Control (EDC)	X		
LonTalk Communications Interface (LCI)		X	X
ReliaTel Microprocessor Controls	X	X	
Electromechanical Controls		X	
Thermostat			X
Trane Communications Interface (TCI)			X
Wireless Zone Sensor			X
Zone Sensor			X

^(a) Refer to model number description for option availability or contact Product Support.



Accessories

Cooling Condenser

Table 3. TTA Accessories

Model	Used With
Coil (Hail/Vandal) Guard	
BAYGARD058A	TTA073G/H, TTA090G/H
BAYGARD059A	TTA120G/H/J
BAYGARD060A	TTA150H
BAYGARD061A	TTA180H/J, TTA240H/J
BAYGARD062A	TTA300J
Universal Hot Gas Bypass Kit	
BAYHGBP010B	All models
Rubber Isolators	
BAYISLT004A (blue)	TTA073G/H, TTA090G/H
BAYISLT005A (black)	TTA120G/H/J
BAYISLT009A (red)	TTA150H, TTA180H/J
BAYISLT010A (green)	TTA240H/J, TTA300J
Steel Spring Isolators	
BAYISLT023A (red)	TTA073G/H, TTA090G, TTA090H, TTA120G
BAYISLT024A (black)	TTA120H/J, TTA150H, TTA180H/J
BAYISLT025A (yellow)	TTA240H/J, TTA300J
Low Ambient — On/Off Fan Control (External mount, small cabinets)^(a) (b) (c)	
BAYLOAMU01B (External Mount, small cabinets) ^(d)	(all voltages)TTA073G/H, TTA090G, TTA090H
BAYLOAMU02B (Internal mount, large cabinets)	(all voltages)TTA120G/H/J, TTA150H, TTA180H/J, TTA240H/J, TTA300J
Head Pressure Control^(b)	
BAYLOAM335A (208–230V, 0.5 HP, Hi-Eff Motor)	TTA073G3, TTA090G3, TTA180J3
BAYLOAM336A (208–230V, 1 HP, Hi-Eff Motor)	TTA120G3/H3/J3, TTA150H3, TTA180H3, TTA240H3/J3, TTA300J3
BAYLOAM337A (208–230 V, 0.5HP, Hi-Eff motor)	TTA073H3, TTA090H3
BAYLOAM435A(380–460V, 0.5HP Hi-Eff Motor)	TTA073G4, TTA090G4, TTA180J4
BAYLOAM436A(380–460V, 1 HP Hi-Eff Motor)	TTA120G4/H4/J4, TTA150H4, TTA180H4, TTA240H4/J4, TTA300J4
BAYLOAM437A(380–460V, 0.5 HP Hi-Eff Motor)	TTA073H4, TTA090H4
BAYLOAMW36A (575V, 1 HP, Hi-Eff Motor)	TTA120GW/HW/JW, TTA150HW, TTA180HW/JW, TTA240HW/JW, TTA300JW
Transducer Kit for Head Pressure Control (BAYLOAM335, 336, 435, 436, W36)	
BAYLOTR001A ^(e)	TTA120H/J, TTA150H
Trane Communication (3/4 Communications Interface)^(f)	
BAYICSI003A	All Models
LonTalk Communications Interface^(f)	
BAYLTICI002B	All Models

^(a) Cycles fan on/off, (no modulating).

^(b) Quantity of 1 required for each fan (2 total for TTA180–300).

^(c) ReliaTel™ requires onboard EDC function to be disabled when BAYLOAM is used, remove OA sensor from terminal J8-1&2

^(d) Kit mounts external to the outdoor unit and operates by sensing ambient and liquid line temperatures.

^(e) BAYLOTR001 required when modulating BAYLOAM kits used with units that have 2 compressors and 1 condenser fan.

^(f) BAYWRKT003 must also be installed when using BAYICSI003 or the BAYLTICI002 on the 15–20T Split System Heat Pump units

Air Handler

Table 4. TWE Accessories

Model	Used With
Base (Subbase)	
BAYBASE009A	TWE061D/E
BAYBASE0010A	TWE073E, TWE090D/E
BAYBASE0011A	TWE120D/E
BAYBASE0012A	TWE150E, TWE180E
BAYBASE0013A	TWE240E, TWE300E
Drip Kit	
BAYDRKT006B	TWE061D/E
BAYDRKT007B	TWE073E, TWE090D/E
BAYDRKT008B	TWE120D/E
BAYDRKT009B	TWE150E, TWE180E
BAYDRKT010B	TWE240E, TWE300E
High Static Motor Kits^(a)	
BAYHSMT104B — 1.5HP (230/1) with Motor Sheave, Fan Sheave and Belt	TWE061D1/E1
BAYHSMT105B — 1.5HP (230-460/3) with Motor Sheave, Fan Sheave and Belt	TWE061D3-4/E3-4
BAYHSMT106B — 1.5HP (575/3) with Motor Sheave, Fan Sheave and Belt	TWE061DW/EW
BAYHSMT107B — 2 HP (230/1) with Motor Sheave, Fan Sheave and Belt	TWE090D1/E1
BAYHSMT108B — 2HP (230-460/3) with Motor Sheave, Fan Sheave and Belt	TWE073, TWE090D3/E3
BAYHSMT109B — 2 HP (575/3) with Motor Sheave, Fan Sheave and Belt	TWE073EW, TWE090DW/EW
BAYHSMT110B — 3HP (230/460/3) with Motor Sheave, Fan Sheave and Belt	TWE073, TWE090D3/E3
BAYHSMT111B — 3 HP (575/3) with Motor Sheave, Fan Sheave and Belt	TWE073EW, TWE090DW/EW
BAYHSMT112B — 3HP (230/460/3) with Motor Sheave, Fan Sheave and Belt	TWE120D3/E3
BAYHSMT113B — 3 HP (575/3) with Motor Sheave, Fan Sheave and Belt	TWE120DW/EW
BAYHSMT114B — 3HP (230/460/3) with Motor Sheave, Fan Sheave and Belt	TWE150E3
BAYHSMT115B — 3 HP (575/3) with Motor Sheave, Fan Sheave and Belt	TWE150EW
BAYHSMT116B — 5 HP (230/3) with Motor Sheave, Fan Sheave and Belt	TWE150E3
BAYHSMT117B — 5HP (460/3) with Motor Sheave, Fan Sheave and Belt	TWE150E3
BAYHSMT118B — 5 HP (575/3) with Motor Sheave, Fan Sheave and Belt	TWE150EW
BAYHSMT119B — 5 HP (208-230/3) with Motor Sheave and Fan Sheave (Stock Belt used)	TWE180E3
BAYHSMT120B — 5HP (460/380-415/3) with Motor Sheave and Fan Sheave (Stock Belt used)	TWE180E3
BAYHSMT121B — 5 HP (575/3) with Motor Sheave and Fan Sheave (Stock Belt used)	TWE180EW
BAYHSMT122B — 7.5 HP (230/460/3) with Motor Sheave, Fan Sheave and Belt	TWE240E3-4
BAYHSMT123B — 7.5 HP (575/3) with Motor Sheave, Fan Sheave and Belt	TWE240EW
Rubber Isolators^{(b) (c) (d)}	
BAYISLT004A (Floor — Blue)	TWE061D/E, TWE073E, TWE090D/E, TWE120D/E
BAYISLT009A (Floor — Red) ^(e)	TWE150E, TWE180E
BAYISLT010A (Floor — Green) ^{(e)(b)}	TWE240E, TWE300E
BAYISLT012B (Suspended —Red/Green)	TWE150E, TWE180E
BAYISLT013B (Suspended —Red/Green) ^(d)	TWE061D/E
BAYISLT014A (Suspended — Green) ^(d)	TWE073, TWE090D/E
BAYISLT015B (Suspended — Green/Black) ^(d)	TWE120D/E
BAYISLT016B (Suspended — Red/Green)	TWE240E, , TWE300E
Steel Spring Isolators^(c)	
BAYISLT019A (Floor — Red) ^{(e)(b)}	TWE061D/E, TWE073E, TWE090D/E, TWE120D/E
BAYISLT021A (Floor — Black) ^{(e)(b)}	TWE150E, TWE180E
BAYISLT032A (Floor — Black/Yellow) ^{(e)(b)}	TWE240E, TWE300E



Accessories

Table 4. TWE Accessories (continued)

Model	Used With
BAYISLT028A (Suspended — Tan)	TWE061D/E
BAYISLT029A (Suspended — Red)	TWE073E, TWE090D/E, TWE120D/E
BAYISLT030A (Suspended — Black)	TWE150E, TWE180E
BAYISLT031B (Suspended — Black/Yellow)	TWE240E, TWE300E
Low Static Drive Kit^(a)	
BAYLSMT001B	TWE240E
Plenum^(f)	
BAYPLNM015B (Discharge Plenum & Grille) ^(f)	TWE061D/E
BAYPLNM016B (Discharge Plenum & Grille) ^(f)	TWE073E, TWE090D/E
BAYPLNM017B (Discharge Plenum & Grille) ^(f)	TWE120D/E
BAYPLNM018B (Discharge Plenum/Hydronic Coil Plenum & Grille) ^(f)	TWE150E, TWE180E
BAYPLNM019B (Discharge Plenum/Hydronic Coil Plenum & Grille) ^(f)	TWE240E, TWE300E
BAYPLNM020B (Hydronic Coil Discharge Plenum & Grille) ^(f)	TWE061D/E
BAYPLNM021B (Hydronic Coil Discharge Plenum & Grille) ^(f)	TWE073E, TWE090D/E
BAYPLNM022B (Hydronic Coil Discharge Plenum & Grille) ^(f)	TWE120D/E
BAYPLNM030A (Electric Heat Discharge Plenum & Grille) ^(f)	TWE061D/E
BAYPLNM031A (Electric Heat Discharge Plenum & Grille) ^(f)	TWE073E, TWE090D/E
BAYPLNM032A (Electric Heat Discharge Plenum & Grille) ^(f)	TWE120D/E
BAYPLNM033A (Electric Heat Discharge Plenum & Grille) ^(f)	TWE150E, TWE180E
BAYPLNM034A (Electric Heat Discharge Plenum & Grille) ^(f)	TWE240E, TWE300E
Return Air Grille	
BAYGRLE001A	TWE061D/E
BAYGRLE002A	TWE073E, TWE090D/E
BAYGRLE003A	TWE120D/E
BAYGRLE004A	TWE150E, TWE180E
BAYGRLE005A	TWE240E, TWE300E
Transformer	
BAYTFMR011C — 75va transformer (230V) ^(g)	TWE073E3, TWE090D3, TWE090E3, TWE120D3, TWE120E3, TWE150E3
BAYTFMR012C — 75va transformer (460/575V) ^(g)	TWE073E3/W, TWE090D3/W, TWE090E3/W, TWE120D3/W, TWE120E3/W, TWE150E4
Water Kits	
BAYWATRO22A (Steam Coil Enclosure) ^(f)	TWE061D/E
BAYWATRO23A (Steam Coil Enclosure) ^(f)	TWE073E, TWE090D/E
BAYWATRO24A (Steam Coil Enclosure) ^(f)	TWE120D/E
BAYWATRO25A (Steam Coil Enclosure) ^(f)	TWE150E, TWE180E
BAYWATRO26A (Steam Coil Enclosure) ^(f)	TWE240E, TWE300E
BAYWATRO27A (Hot Water Coil Enclosure) ^(f)	TWE061D/E
BAYWATRO28A (Hot Water Coil Enclosure) ^(f)	TWE073E, TWE090D/E
BAYWATRO29A (Hot Water Coil Enclosure) ^(f)	TWE120D/E
BAYWATRO30A (Hot Water Coil Enclosure) ^(f)	TWE150E, TWE180E
BAYWATRO31A (Hot Water Coil Enclosure) ^(f)	TWE240E, TWE300E
Wire Kit — 180° Blower Discharge Reversal Kit^(h)	
BAYWRKT002B	TWE061D/E, TWE073E, TWE090D/E, TWE120D/E

^(a) Used on standard air handlers only.

^(b) Requires use of subbase accessory.

^(c) In units with steam or hot water coils applied vertically or horizontally, check IOM for proper Isolator Kit selection.

^(d) Do not use if blower will operate less than 600 RPM.

^(e) When the air handler is in the vertical position and close proximity trapping of condensate is required, use of subbase is required.

^(f) When installed horizontally, plenum/water coil must be self-supported.

^(g) Required when 6-10 ton air handlers are matched with 3-6 ton condensing units.

^(h) Cannot be used on TWE150-300, due to motor mount location.

Electric Heaters

Table 5. Electric heaters

Model	Used With
6–10 Ton Electric Heater Selection	
BAYHTRL106A — 4.33/5.76 kW Heater 208/240/1 Phase	TWE061D1/E1, TWE090D1/E1, TWE120D1/E1
BAYHTRL112A — 8.65/11.52 kW Heater 208/240/1 Phase	TWE061D1/E1, TWE090D1/E1, TWE120D1/E1
BAYHTRL117A — 12.98/17.28 kW Heater 208/240/1 Phase	TWE061D1/E1, TWE090D1/E1, TWE120D1/E1
BAYHTRL123A — 17.31/23.04 kW Heater 208/240/1 Phase	TWE061D1/E1, TWE090D1/E1, TWE120D1/E1
BAYHTRL129A — 21.63/28.80 kW Heater 208/240/1 Phase	TWE090D1/E1, TWE120D1/E1
BAYHTRL305A — 3.76/5.00 kW Heater 208/240/3 Phase	TWE061D3/E3, TWE073E3, TWE090D3/E3, TWE120D3/E3
BAYHTRL310A — 7.48/9.96 kW Heater 208/240/3 Phase	TWE061D3/E3, TWE073E3, TWE090D3/E3, TWE120D3/E3
BAYHTRL315A — 11.24/14.96 kW Heater 208/240/3 Phase	TWE061D3/E3, TWE073E3, TWE090D3/E3, TWE120D3/E3
BAYHTRL325A — 18.72/24.92 kW Heater 208/240/3 Phase	TWE061D3/E3, TWE073E3, TWE090D3/E3, TWE120D3/E3
BAYHTRL335A — 26.20/34.88 kW Heater 208/240/3 Phase	TWE073E3, TWE090D3/E3, TWE120D3/E3
BAYHTRL405A — 5.00 kW Heater 460/3 Phase ^(a)	TWE061D4/E4, TWE073E3/4, TWE090D3/E3, TWE090D4/E4, TWE120D3/E3, TWE120D4/E4
BAYHTRL410A — 9.96 kW Heater 460/3 Phase ^(a)	TWE061D4/E4, TWE073E3/4, TWE090D3/E3, TWE090D4/E4, TWE120D3/E3, TWE120D4/E4
BAYHTRL415A — 14.96 kW Heater 460/3 Phase ^(a)	TWE061D4/E4, TWE073E3/4, TWE090D3/E3, TWE090D4/E4, TWE120D3/E3, TWE120D4/E4
BAYHTRL425A — 24.92 kW Heater 460/3 Phase ^(a)	TWE061D4/E4, TWE073E3/4, TWE090D3/E3, TWE090D4/E4, TWE120D3/E3, TWE120D4/E4
BAYHTRL435A — 34.88 kW Heater 460/3 Phase ^(a)	TWE073E3/4, TWE090D3/E3, TWE090D4/E4, TWE120D3/E3, TWE120D4/E4
BAYHTRLW05A — 5 kW Heater 575/3 Phase	TWE061DW, TWE073EW, TWE090DW/EW, TWE120DW/EW
BAYHTRLW10A — 9.96 kW Heater 575/3 Phase	TWE061DW, TWE073EW, TWE090DW/EW, TWE120DW/EW
BAYHTRLW15A — 14.96 kW Heater 575/3 Phase	TWE061DW, TWE073EW, TWE090DW/EW, TWE120DW/EW
BAYHTRLW25A — 24.92 kW Heater 575/3 Phase	TWE061DW, TWE073EW, TWE090DW/EW, TWE120DW/EW
BAYHTRLW35A — 34.88 kW Heater 575/3 Phase	TWE073EW, TWE090DW/EW, TWE120DW/EW
12.5–25 Ton Electric Heater Selection	
BAYHTRM310A — 7.51/10.0 kW Heater 208/230 3 Phase	TWE150E3, TWE180E3, TWE240E3, TWE300E3
BAYHTRM320A — 14.96/19.92 kW Heater 208/230 3 Phase	TWE150E3, TWE180E3, TWE240E3, TWE300E3
BAYHTRM330A — 22.47/29.92 kW Heater 208/230 3 Phase	TWE150E3, TWE180E3, TWE240E3, TWE300E3
BAYHTRM350A — 37.44/49.84 kW Heater 208/230 3 Phase	TWE150E3, TWE180E3, TWE240E3, TWE300E3
BAYHTRM410A — 10.0 kW Heater 460/3 Phase ^(a)	TWE150E3/4, TWE180E3/4, TWE240E4, TWE300E4
BAYHTRM420A — 19.92 kW Heater 460/3 Phase ^(a)	TWE150E3/4, TWE180E3/4, TWE240E4, TWE300E4
BAYHTRM430A — 29.92 kW Heater 460/3 Phase ^(a)	TWE150E3/4, TWE180E3/4, TWE240E4, TWE300E4
BAYHTRM450A — 49.84 kW Heater 460/3 Phase ^(a)	TWE150E3/4, TWE180E3/4, TWE240E4, TWE300E4
BAYHTRMW10A — 10.0 kW Heater 575/3 Phase	TWE150EW, TWE180EW, TWE240EW, TWE300EW
BAYHTRMW20A — 19.92 kW Heater 575/3 Phase	TWE150EW, TWE180EW, TWE240EW, TWE300EW
BAYHTRMW30A — 29.92 kW Heater 575/3 Phase	TWE150EW, TWE180EW, TWE240EW, TWE300EW
BAYHTRMW50A — 49.84 kW Heater 575/3 Phase	TWE150EW, TWE180EW, TWE240EW, TWE300EW

Note: Electric Heaters not available for 380/60hz

^(a) BAYHTRL4**** heaters are available for 230V units that have been field-converted to 460V.



Application Considerations

Application of this product should be within the cataloged airflow and performance considerations.

Clearance Requirements

The recommended clearances identified with unit dimensions should be maintained to assure adequate serviceability, maximum capacity and peak operating efficiency. Actual clearances which appear inadequate should be reviewed with the local representative.

180° Blower Rotation

The 5, 6, 7.5, and 10 ton standard air handler blower section can be rotated 180° to change the discharge pattern. This modification must be done in the field and requires an additional kit. See unit installation guide.

Low Ambient Cooling

As manufactured, electromechanical units can operate to 50°F in the cooling mode of operation. An accessory head pressure control will allow operation to 0°F outdoor ambient. When using these units with control systems such as bypass changeover Variable Air Volume, make sure to consider the requirement for a head pressure control to allow low ambient cooling.

Figure 5. Typical split system application

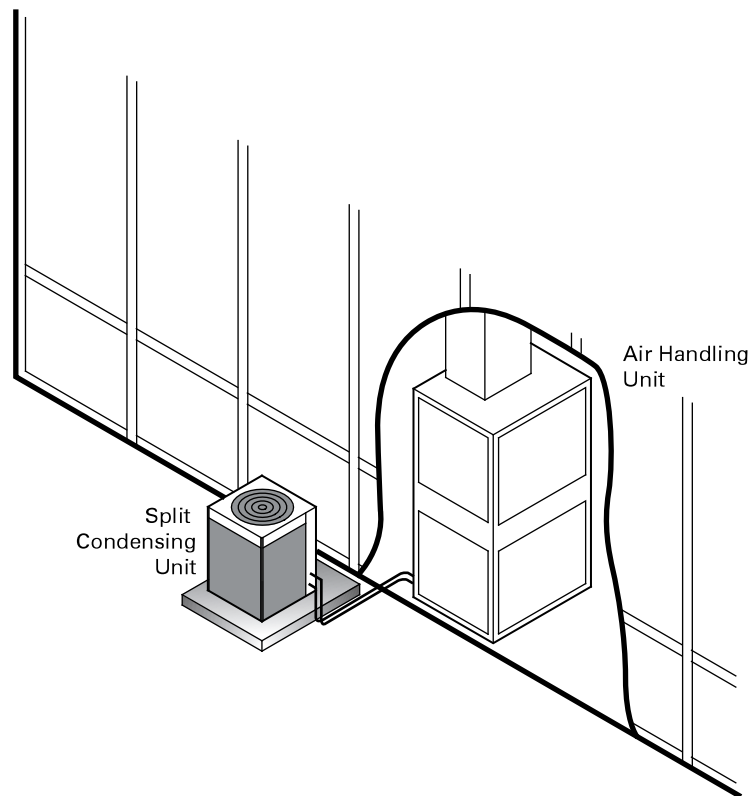


Figure 6. Typical horizontal air handler application

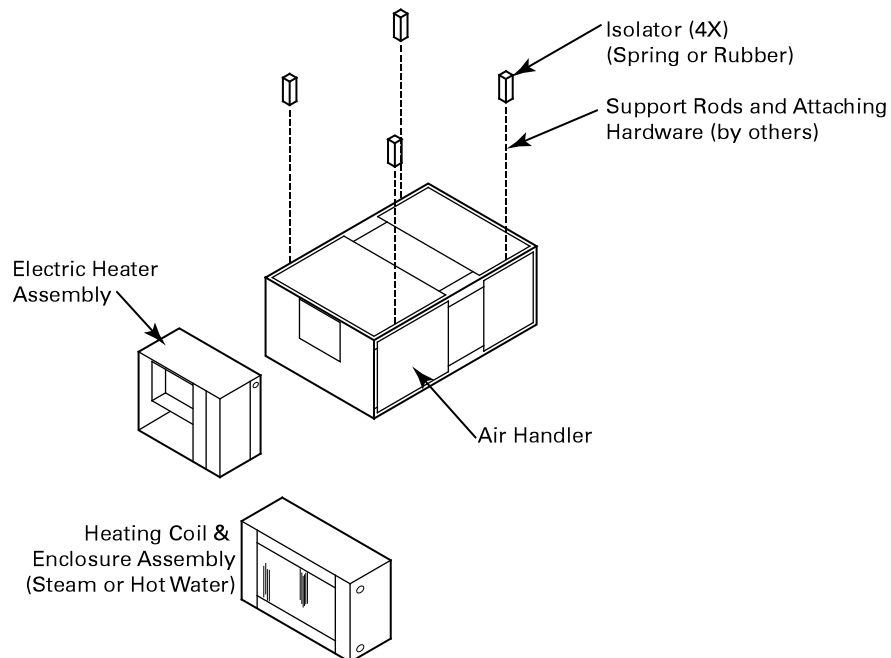
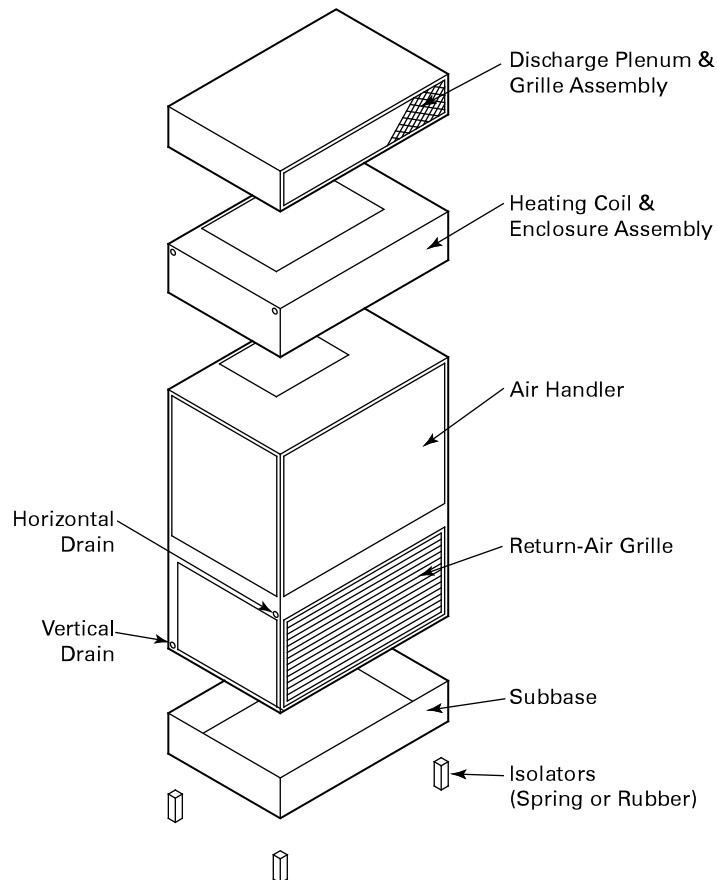


Figure 7. Typical vertical air handler application





Selection Procedure

Cooling Capacity

1. Calculate the building's total and sensible cooling loads at design conditions, using standardized calculation methods.
2. Size the equipment using the gross cooling capacity tables that begin with [Table 15, p. 30](#). Match the cooling loads at design conditions. For example, if the following specifies the building cooling requirements:
Electrical Characteristics: 460/60/3
Summer Design Conditions: Entering Evap Coil—80°F DB/67°F WB , Outdoor Ambient—95°F
Total Cooling Load: 86 MBh
Sensible Cooling Load: 60 MBh
Airflow: 3000 cfm
External Static Pressure: 0.77 inches of water gauge
3. Use [Table 15, p. 30](#) to determine that TTA090G with TWE090D has a gross cooling capacity of 94.8 MBh and 72.7 MBh sensible capacity at 95°F DB ambient and 3000 cfm with 80°F DB/67°F WB air entering the evaporator.
4. To find the net cooling capacities, fan motor heat must be subtracted. Determine the total unit static pressure:
External Static Duct System: 0.77
Standard Filter: 0.10 in.
Supplementary Electric Heat: 0.23 in.
Total Static Pressure: 1.10 in.

Notes:

- The Evaporator Fan Performance Table has included the effect of a 1 in. filter already. Therefore, the actual Total Static Pressure is $1.10 - 0.10 = 1.00$ in. With 3000 cfm and 1.00 in., [Table 52, p. 67](#) shows 1.97 Bhp (high static drive kit required).
- This formula can be used to calculate Fan Motor Heat:
 $3.15 \times \text{Bhp} = \text{MBh}$
 $3.15 \times 1.97 = 6.2 \text{ MBh}$
 $\text{Net Total Cooling Capacity} = 94.8 \text{ MBh} - 6.2 \text{ MBh} = 88.6 \text{ MBh}$
 $\text{Net Sensible Cooling Capacity} = 72.7 \text{ MBh} - 6.2 \text{ MBh} = 66.5 \text{ MBh}$

Heating Capacity

1. Calculate the building heating load using the Trane calculation form or any other standard accepted method.
2. Size the equipment using [Table 71, p. 86](#) to match the heating loads at design conditions. For example, if the following specifies the building heating requirements:
Total Heating Load: 97.0 MBh
Airflow: 3000 cfm
Supplementary Electric Heaters
3. Use [Table 71, p. 86](#) to determine that the 34.88 kW heater has a capacity of 119,045 Btuh.
4. From [Table 81, p. 103](#), the 34.88 kW heater at 460V indicates the heater model is BAYHTRL435A.

Air Delivery

1. The external static pressure drop through the air distribution system is 0.77 inches of water gauge, use [Table 70, p. 85](#) to determine that the static pressure drop through the electric heater is 0.23 inches of water ($0.77 + 0.23 = 1.00$ in.).
2. Enter [Table 52, p. 67](#) for TWE090D at 3000cfm and 1.00 static pressure. The high static motor at 1020 RPM gives the desired airflow.



Model Number Description

Cooling Condenser

TTA	2 40	J	3	0 0	*	*
1 2 3	4 5 6	7	8	9 10	11	12

Note: When ordering replacement parts or requesting service, be sure to refer to the specific model number, serial number, and DL number (if applicable) stamped on the unit nameplate.

DIGITS 1 - 3: Product Type

TTA = Split System Cooling

DIGITS 4 - 6: Nominal Gross Cooling Capacity (MBh)

073 = 6 Tons (60Hz)

090 = 7.5 Tons (60Hz)

120 = 10 Tons (60Hz)

150 = 12.5 Tons (60Hz)

180 = 15 Tons (60Hz)

240 = 20 Tons (60Hz)

300 = 25 Tons (60Hz)

DIGIT 7: Major Development Sequence

G = Single Compressor, Single Circuit, Microchannel

H = Dual Compressor, Dual Circuit, Microchannel

J = Dual Compressor, Single Circuit (Manifold Scroll Compressors), Microchannel

DIGIT 8: Electrical Characteristics

3 = 208–230/60/3

4 = 460/60/3

W = 575/60/3

K = 380/60/3

DIGITS 9 - 10: Factory Installed Options

00 = Packed Stock

0S = Coated Coil

0R = ReliaTel, no LCI Board

0T = ReliaTel, no LCI Board with Coated Coil

0U = ReliaTel, with LCI Board

0W = ReliaTel, with LCI Board and Coated Coil

H0 = Hail Guard with Packed Stock

HS = Hail Guard with Coated Coil

HR = Hail Guard with ReliaTel, no LCI Board

HT = Hail Guard with ReliaTel, no LCI Board with Coated Coil

HU = Hail Guard with ReliaTel, with LCI Board

HW = Hail Guard with ReliaTel, with LCI Board and Coated Coil

DIGITS 11: Minor Design Sequence

* = Current Design Sequence²

DIGITS 12: Service Digit

* = Current Design Sequence²

² * = sequential alpha character

Air Handler

TWE	240	E	D	00	*	*
123	456	7	8	910	11	12

Note: When ordering replacement parts or requesting service, be sure to refer to the specific model number, serial number, and DL number (if applicable) stamped on the unit nameplate.

DIGITS 1 - 3: Product Type

TWE = Split System Heat Pump/Cooling Air Handler

DIGITS 4 - 6: Nominal Gross Cooling Capacity (MBh)

061 = 5 Tons (60 Hz)

073 = 6 Tons (60 Hz)

090 = 7.5 Tons (60 Hz)

120 = 10 Tons (60 Hz)

150 = 12.5 Tons (60 Hz)

180 = 15 Tons (60 Hz)

240 = 20 Tons (60 Hz)

300 = 25 Tons (60 Hz)

DIGIT 7: Major Development Sequence

D = Single Refrigeration Circuit

E = Dual Refrigeration Circuit

DIGIT 8: Electrical Characteristics

1 = 208-230/60/1

3 = 208-230/60/3

4 = 460/60/3

W = 575/60/3

K = 380/60/3

DIGITS 9 - 10: Factory Installed Options

00 = Packed Stock (Standard)

03 = 2-Speed Variable Frequency Drive (VFD) standard motor (electromechanical condenser only)

04 = 2-Speed Variable Frequency Drive (VFD) oversized motor (electromechanical condenser only)

R3 = Single Zone Variable Air Volume (VFD) standard motor - (ReliaTel condenser only)

R4 = Single Zone Variable Air Volume (VFD) oversized motor - (ReliaTel condenser only)

DIGITS 11: Minor Design Sequence

* = Current Design Sequence³

DIGITS 12: Service Digit

* = Current Design Sequence³

³. * = sequential alpha character



General Data

Table 6. General data — 6-7.5 tons (TTA073G-TTA090H) condensing units — 60 Hz

	6 Tons	6 Tons	7.5 Tons	7.5 Tons
	Single Compressor	Dual Compressor	Single Compressor	Dual Compressor
	TTA073G*	TTA073H*	TTA090G*	TTA090H*
Cooling Performance - Gross Cooling Capacity				
Matched Air Handler	TWE090D*	TWE073E*	TWE090D*	TWE090E*
AHRI Rated Airflow	2,400	2,400	3,000	3,000
Gross Cooling Capacity - System	76,000	74,000	95,000	95,000
Condensing Unit Only ^(a)	72,000	72,000	90,000	90,000
AHRI Net Cooling Capacity ^(b)	74,000	72,000	92,000	92,000
Efficiency				
Matched Air Handler (EER) ^(b)	11.2	11.2	11.2	11.2
Condensing Unit Only (EER) ^(a)	12.5	12.5	12.4	12.4
System (IEER) ^(b)	12.8	13.0	12.0	12.0
System kW/Condensing Unit kW	6.6 / 5.8	6.4 / 5.8	8.2 / 7.3	8.2 / 7.3
Compressor				
Type	Scroll	Scroll	Scroll	Scroll
No./Tons	1 / 5.1	2 / 2.4	1 / 6.9	2 / 3.3
System Data				
No. Refrigerant Circuits ^(c)	1	2	1	2
Suction Line (in.) OD ^(c)	1 1/8	7/8	1 3/8	1 1/8
Liquid Line (in.) OD ^(c)	1/2	1/2	1/2	1/2
Outdoor Coil				
Type	MCHE	MCHE	MCHE	MCHE
Tube Size OD/Coil Width MCHE (in.)	0.8	0.8	0.8	0.8
Face Area (sq ft)	18.5	17.4	18.5	17.4
Rows/FPI (Fins per inch)	1/23	1/23	1/23	1/23
Outdoor Fan				
Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter (in.)	1/26	1/26	1/26	1/26
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM	5,100	5,100	5,100	5,100
No. Motor/HP	1 / 0.5	1 / 0.5	1 / 0.5	1 / 0.5
Motor RPM	1,100	1,100	1,100	1,100
Refrigerant Charge (Field Supplied)				
lbs of R-410A	10.0	7.0 / 7.0	9.7	7.3 / 7.3
Shipping Dimensions				
HxWxD (in.)	45" x 45" x 38"	45" x 45" x 38"	45" x 45" x 38"	45" x 45" x 38"

^(a) Condensing units are tested in accordance with AHRI Standard 365.

^(b) Units are AHRI Certified to AHRI Standard 340-360 (I-P)-2007. Rating conditions are 95°F outdoor air temperature, 80°F entering dry bulb, 67°F entering wet bulb with 25ft of interconnecting refrigerant piping with minimum external static pressure as determined by rating standard.

^(c) Refer to refrigerant piping applications manual for line sizing and line length.

Table 7. General data — 10-12.5 tons (TTA120G-TTA150H) condensing units — 60 Hz

	10 Tons	10 Tons	10 Tons	12.5 Tons
	Single Compressor TTA120G*	Dual Compressor TTA120H*	Manifolded Compressor TTA120J*	Dual Compressor TTA150H*
Cooling Performance - Gross Cooling Capacity				
Matched Air Handler	TWE120D*	TWE120E*	TWE120D*	TWE150E*
AHRI Rated Airflow	4,000	4,000	4,000	5,000
Gross Cooling Capacity - System	124,000	124,000	124,000	153,000
Condensing Unit Only ^(a)	120,000	120,000	114,000	144,000 ^(b)
AHRI Net Cooling Capacity ^(c)	120,000	120,000	120,000	150,000
Efficiency				
Matched Air Handler (EER) ^(c)	11.2	11.2	11.2	11.0
Condensing Unit Only (EER) ^(a)	12.2	12.2	12.2	11.7 ^(b)
System (IEER) ^(c)	12.0	11.5	14.2	13.1
System kW/Condensing Unit kW	10.7 / 9.8	10.7 / 9.8	10.7 / 9.8	13.6 / 12.8
Compressor				
Type	Scroll	Scroll	Manifolded Scrolls	Scroll
No./Tons	1 / 8.6	2 / 4.3	2 / 4.3	2 / 5.6
System Data				
No. Refrigerant Circuits ^(d)	1	2	1	2
Suction Line (in.) OD ^(d)	1 3/8	1 1/8	1 3/8	1 1/8
Liquid Line (in.) OD ^(d)	1/2	1/2	1/2	1/2
Outdoor Coil				
Type	MCHE	MCHE	MCHE	MCHE
Tube Size OD/Coil Width MCHE (in.)	0.8	0.8	0.8	1.0
Face Area (sq ft)	23.8	22.7	23.8	27.0
Rows/FPI (Fins per inch)	1/23	1/23	1/23	1/23
Outdoor Fan				
Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter (in.)	1/28	1/28	1/28	1/28
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM	7,800	7,800	7,800	7,800
No. Motor/HP	1 / 1	1 / 1	1 / 1	1 / 1
Motor RPM	1,100	1,100	1,100	1,100
Refrigerant Charge (Field Supplied)				
Lbs of R-410A	13.6	7.7 / 7.6	13.1	9.8 / 9.8
Shipping Dimensions				
HxWxD (in.)	45" x 55" x 42"	45" x 55" x 42"	45" x 55" x 42"	52.1" x 55" x 42"

^(a) Condensing units are tested in accordance with AHRI Standard 365.

^(b) Condensing units are AHRI Certified to AHRI Standard 365.

^(c) Units are AHRI Certified to AHRI Standard 340-360 (I-P)-2007. Rating conditions are 95°F outdoor air temperature, 80°F entering dry bulb, 67°F entering wet bulb with 25ft of interconnecting refrigerant piping with minimum external static pressure as determined by rating standard.

^(d) Refer to refrigerant piping applications manual for line sizing and line length.



General Data

Table 8. General data — 15-25 tons (TTA180H-TTA300J) condensing units — 60 Hz

	15 Tons	15 Tons	20 Tons	20 Tons	25 Ton
	Dual Compressor TTA180H*	Manifolded Compressor TTA180J*	Dual Compressor TTA240H*	Manifolded Compressor TTA240J*	Manifolded Compressor TTA300J*
Cooling Performance - Gross Cooling Capacity					
Matched Air Handler	TWE180E*	TWE180E*	TWE240E*	TWE240E*	TWE300E*
AHRI Rated Airflow	6,000	6,000	8,000	8,000	N/A
Gross Cooling Capacity - System	186,000	186,000	256,000	256,000	303,000
Condensing Unit Only ^(a)	178,000 ^(b)	182,000 ^(b)	248,000 ^(b)	248,000 ^(b)	304,000
AHRI Net Cooling Capacity ^(c)	180,000	180,000	248,000	248,000	292,000 ^(d)
Efficiency					
Matched Air Handler (EER) ^(c)	11.0	11.0	10.0	10.0	10 ^(d)
Condensing Unit Only (EER) ^(a)	12.6 ^(b)	12.8 ^(b)	12.1 ^(b)	12.0 ^(b)	11.8
System (IEER) ^(c)	12.8	12.5	11.1	11.9	11.7 ^(d)
System kW/Condensing Unit kW	16.4 / 14.3	16.4 / 14.1	24.8 / 20.5	24.8 / 20.7	29.2 / 25.8
Compressor					
Type	Scroll	Manifolded Scrolls	Scroll	Manifolded Scroll	Manifolded Scrolls
No./Tons	2 / 6.9	2 / 6.9	2 / 10.0	2 / 10.0	2 / 12.0
System Data					
No. Refrigerant Circuits ^(e)	2	1	2	1	1
Suction Line (in.) OD ^(e)	1 3/8	1 5/8	1 3/8	1 5/8	2 1/8
Liquid Line (in.) OD ^(e)	1/2	5/8	1/2	5/8	5/8
Outdoor Coil					
Type	MCHE	MCHE	MCHE	MCHE	MCHE
Tube Size OD/Coil Width MCHE (in.)	0.8	0.8	0.8	0.8	1.0
Face Area (sq ft)	44.3	44.3	44.3	44.3	51.3
Rows/FPI (Fins per inch)	1/23	1/23	1/23	1/23	1/23
Outdoor Fan					
Type	Propeller	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter (in.)	2/28	2/26	2/28	2/28	2/28
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1	Direct/1
CFM	15,500	10,500	15,500	15,500	15,500
No. Motor/HP	2/1	2/0.5	2/1	2/1	2/1
Motor RPM	1,100	1,100	1,100	1,100	1,100
Refrigerant Charge (Field Supplied)					
lbs of R-410A	11.5 / 11.5	21.3	11.6 / 12.0	23.8	29.8
Shipping Dimensions					
HxWxD (in.)	51.1" x 96" x 48"	51.1" x 96" x 48"	51.1" x 96" x 48"	51.1" x 96" x 48"	57.1" x 96" x 48"

^(a) Condensing units are tested in accordance with AHRI Standard 365.

^(b) Condensing units are AHRI Certified to AHRI Standard 365.

^(c) Units are AHRI Certified to AHRI Standard 340-360 (I-P)-2007. Rating conditions are 95°F outdoor air temperature, 80°F entering dry bulb, 67°F entering wet bulb with 25ft of interconnecting refrigerant piping with minimum external static pressure as determined by rating standard.

^(d) Units are tested in accordance with AHRI Standard 340-360.

^(e) Refer to refrigerant piping applications manual for line sizing and line length.

Table 9. General data — 5-7.5 tons (TWE061D-TWE090E) standard air handler — 60 Hz

	5 Tons	5 Tons	6 Tons	7.5 Tons	7.5 Tons
	Single Circuit TWE061D1, D3, D4, DW, DK	Dual Circuit TWE061E1, E3, E4	Dual Circuit TWE073E3, EW, EK	Single Circuit TWE090D1, D3, DW, DK	Dual Circuit TWE090E1, E3, EW, EK
System Data					
No. Refrigerant Circuits	1	2	2	1	2
Suction Line Connection (in.) OD	1-1/8	1-1/8	1-1/8	1-3/8	1-1/8
Liquid Line Connection (in.) OD	1/2	1/2	1/2	1/2	1/2
Indoor Coil					
Type	Lanced/Intertwined	Lanced/Intertwined	Lanced/Intertwined	Lanced/Intertwined	Lanced/Intertwined
Tube Size (in.)	0.375	0.375	0.375	0.375	0.375
Face Area (sq. ft.)	5	5	8.1	8.1	8.1
Rows/FPI (Fins per inch)	4/14	4/14	4/14	4/14	4/14
Refrigerant Control	Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve
Drain Connection Size (in.)	1 PVC	1 PVC	1 PVC	1 PVC	1 PVC
Indoor Fan					
Type	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal
No. Used/Diameter x Width (in.)	1/12 x 12	1/12 x 12	1/15 x 15	1/15 x 15	1/15 x 15
Drive Type/No. Speeds	Belt/Adjustable	Belt/Adjustable	Belt/Adjustable	Belt/Adjustable	Belt/Adjustable
CFM (Nominal)	2,000	2,000	2,400	3,000	3,000
No. Motors	1	1	1	1	1
Motor HP - Standard/Oversized	0.75/1.5	0.75/1.5	1.5/2.0/3.0	1.5/2.0/3.0	1.5/2.0/3.0
Motor RPM	1725	1725	1725	1725	1725
Motor Frame Size	56	56	56 H	56 H	56 H
Filters^(a)					
Type/Furnished	Throwaway/Yes	Throwaway/Yes	Throwaway/Yes	Throwaway/Yes	Throwaway/Yes
(No.)/Size Recommended	(1) 16 x 20 x 1 (1) 20 x 20 x 1	(1) 16 x 20 x 1 (1) 20 x 20 x 1	(3) 16 X 25 X 1	(3) 16 X 25 X 1	(3) 16 X 25 X 1
Shipping Dimensions					
HxWxD (in.)	55.1" x 27.5" x 43.5"	55.1" x 27.5" x 43.5"	61.2" x 30.5" x 53"	61.2" x 30.5" x 53"	61.2" x 30.5" x 53"

Note: Oversized motor not available on D1/DK and E1/EK models.

^(a) One inch, throw-away filters shall be standard on TWE061, TWE073, TWE090, TWE120 model air handlers from the factory. The filter rack can be field converted to two inch capability. Two inch, throw-away filters shall be standard on TWE180E and TWE240E models.

Table 10. General data — 10-25 tons (TWE120D-TWE300E) standard air handler — 60 Hz

	10 Tons	10 Tons	12.5 Tons	15 Tons	20 Tons	25 Tons
	Single Circuit TWE120D1, D3, DW, DK	Dual Circuit TWE120E1, E3, EW, EK	Dual Circuit TWE150E3, EW, EK	Dual Circuit TWE180E3, EW, EK	Dual Circuit TWE240E3, E4, EW, EK	Dual Circuit TWE300E3, E4, EW, EK
System Data						
No. Refrigerant Circuits	1	2	2	2	2	2
Suction Line Connection (in.) OD	1-3/8	1-1/8	1-3/8	1-3/8	1-3/8	1-3/8
Liquid Line Connection (in.) OD	1/2	1/2	1/2	1/2	1/2	5/8
Indoor Coil						
Type	Lanced/Intertwined	Lanced/Intertwined	Lanced/Intertwined	Lanced/Intertwined	Lanced/Intertwined	Lanced/Face Split
Tube Size (in.)	0.375	0.375	0.375	0.375	0.375	0.375
Face Area (sq. ft.)	11.2	11.2	16.3	16.3	21.7	21.7
Rows/FPI (Fins per inch)	4/14	4/14	4/14	4/14	3/14	4/14
Refrigerant Control	Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve
Drain Connection Size (in.)	1 PVC	1 PVC	1 PVC	1 PVC	1 PVC	1 PVC
Indoor Fan						
Type	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal
No. Used/Diameter x Width (in.)	1/15 x 15	1/15 x 15	2/15 x 15	2/15 x 15	2/15 x 15	2/15 x 15
Drive Type/No. Speeds	Belt/Adjustable	Belt/Adjustable	Belt/Adjustable	Belt/Adjustable	Belt/Adjustable	Belt/Adjustable
CFM (Nominal)	4,000	4,000	5,000	6,000	8,000	10,000
No. Motors	1	1	1	1	1	1
Motor HP - Standard/Oversized	2.0/3.0	2.0/3.0	2.0/3.0/5.0	3.0/5.0	3.0/5.0/7.5	7.5
Motor RPM	1725	1725	1755	1,728/1,750	1,750/3,470	3490
Motor Frame Size	56 Hz	56 Hz	145T	56 Hz	184T	184T
Filters^(a)						
Type/Furnished	Throwaway/Yes	Throwaway/Yes	Throwaway/Yes	Throwaway/Yes	Throwaway/Yes	Throwaway/Yes
(No.)/Size Recommended	(4) 16 X 25 X 1	(4) 16 X 25 X 1	(8) 15 X 20 X 2	(8) 15 X 20 X 2	(4) 16 X 25 X 2 (4) 16 X 20 X 2	(4) 16 X 25 X 2 (4) 16 X 20 X 2
Shipping Dimensions						
HxWxD (in.)	61.2" x 30.5" x 69"	61.2" x 30.5" x 69"	76.3" x 33.3" x 85"	76.3" x 33.3" x 85"	79.1" x 35.8" x 95"	79.1" x 35.8" x 95"

Note: Oversized motor not available on D1/DK and E1/EK models.

^(a) One inch, throw-away filters shall be standard on TWE061, TWE073, TWE090, TWE120 model air handlers from the factory. The filter rack can be field converted to two inch capability. Two inch, throw-away filters shall be standard on TWE180E and TWE240E models.

Table 11. General data — 6-10 tons (TWE073E** - TWE120E****) SZVAV and 2-speed VFD air handler — 60 Hz**

	6 Tons	7.5 Tons	10 Tons	10 Tons
	Dual Circuit TWE073E3****, E4****, EW****	Dual Circuit TWE090E3****, E4****, EW****	Single Circuit TWE120D3****, D4****, DW****	Dual Circuit TWE120E3****, E4****, EW****
Indoor Fan				
Type	Centrifugal	Centrifugal	Centrifugal	Centrifugal
No. Used/Diameter x Width (in.)	1/15 x 15	1/15 x 15	1/15 x 15	1/15 x 15
Drive Type/No. Speeds	Belt/VFD Variable	Belt/VFD Variable	Belt/VFD Variable	Belt/VFD Variable
CFM (Nominal)	2,400	3,000	4,000	4,000
No. Motors	1	1	1	1
Motor HP - Standard/Oversized	2.0/3.0	2.0/3.0	2.0/3.0	2.0/3.0
Motor RPM	1725	1725	1725	1725
Motor Frame Size	56HZ	56HZ	56HZ	56HZ

Table 12. General data — 12.5-25 tons (TWE150E** - TWE300E****) SZVAV and 2-speed VFD air handler — 60 Hz**

	12.5 Tons	15 Tons	20 Tons	25 Tons
	Dual Circuit, TWE150E3****, E4****, EW****	Dual Circuit, TWE180E3****, E4****, EW****	Dual Circuit, TWE240E3****, E4****, EW****	Dual Circuit, TWE300E3****, E4****, EW****
Indoor Fan				
Type	Centrifugal	Centrifugal	Centrifugal	Centrifugal
No. Used/Diameter x Width (in.)	2/15 x 15	2/15 x 15	2/15 x 15	2/15 x 15
Drive Type/No. Speeds	Belt/VFD Variable	Belt/VFD Variable	Belt/VFD Variable	Belt/VFD Variable
CFM (Nominal)	5,000	6,000	8,000	10,000
No. Motors	1	1	1	1
Motor HP - Standard/Oversized	2.0/5.0	3.0/5.0	5.0/7.5	7.5 ^(a)
Motor RPM	1755/3450	1725/3450	3450/3470	3470
Motor Frame Size	56HZ	56HZ	56HZ/184T	184T

^(a) Standard motor only



Performance Data

Table 13. Gross cooling capacities (MBH) 6 tons TTA073G condensing unit with 7.5 tons TWE090D standard air handler (IP)

CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		85						95						105					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
2160	75	71.3	60.7	78.0	46.4	84.8	31.2	66.3	66.3	74.8	45.1	81.4	30.0	65.4	57.9	71.5	43.8	77.8	28.7
	80	72.3	72.3	78.0	57.9	84.6	42.8	69.8	69.8	74.9	56.5	81.2	41.6	67.2	67.2	71.6	55.1	77.6	40.4
	85	75.9	75.9	78.3	69.2	84.5	54.5	73.4	73.4	75.2	67.9	81.1	53.3	70.6	70.6	72.0	66.5	77.5	52.0
	90	79.5	79.5	79.6	79.6	84.5	65.9	76.8	76.8	76.9	76.9	81.1	64.6	73.9	73.9	74.1	74.1	77.5	63.2
2400	75	72.6	64.3	79.1	48.5	85.8	31.7	69.7	62.9	75.9	47.2	82.3	30.5	66.6	61.5	72.4	45.9	78.6	29.2
	80	74.6	74.6	79.2	61.1	85.5	44.6	72.0	72.0	76.0	59.8	82.1	43.4	69.2	69.2	72.6	58.4	78.4	42.2
	85	78.3	78.3	79.7	73.8	85.4	57.5	75.6	75.6	76.5	72.5	82.0	56.2	72.7	72.7	73.2	71.1	78.3	55.1
	90	81.8	81.8	82.0	82.0	85.5	70.0	79.0	79.0	79.1	79.1	82.1	68.8	76.0	76.0	76.1	76.1	78.4	67.4
2640	75	73.8	67.9	79.9	50.6	86.5	32.2	70.8	66.5	76.7	49.3	83.1	31.0	67.7	65.1	73.1	47.9	79.3	29.7
	80	76.5	76.5	80.1	64.4	86.3	46.4	73.8	73.8	76.9	63.0	82.8	45.2	70.9	70.9	73.4	61.6	79.0	43.9
	85	80.3	80.3	80.9	78.4	86.2	60.4	77.5	77.5	77.7	77.0	82.7	59.1	74.4	74.4	74.5	74.5	79.0	57.8
	90	83.8	83.8	83.9	83.9	86.3	74.2	80.8	80.8	80.9	80.9	82.9	72.9	77.7	77.7	77.8	77.8	79.2	71.6
2880	75	74.8	71.5	80.7	52.6	87.2	32.7	71.8	70.1	77.3	51.2	83.7	31.5	68.7	68.6	73.8	49.8	79.8	30.2
	80	78.2	78.2	80.9	67.6	86.9	48.2	75.4	75.4	77.7	66.2	83.3	47.0	72.4	72.4	74.2	64.8	79.6	45.7
	85	81.9	81.9	82.1	82.1	86.8	63.3	79.0	79.0	79.1	79.1	83.3	62.0	75.9	75.9	76.0	76.0	79.5	60.6
	90	85.4	85.4	85.5	85.5	87.1	78.4	82.3	82.3	82.4	82.4	83.6	77.1	79.1	79.1	79.1	79.1	79.9	75.7
CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		115						125						125					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
2160	75	62.3	56.4	68.0	42.4	74.0	27.4	59.0	54.8	64.2	40.9	69.8	25.9						
	80	64.3	64.3	68.0	53.6	73.8	39.0	61.3	61.3	64.3	52.1	69.6	37.6						
	85	67.7	67.7	68.5	65.0	73.6	50.6	64.5	64.5	64.8	63.5	69.4	49.0						
	90	70.8	70.8	71.0	71.0	73.7	61.8	67.4	67.4	67.5	67.5	69.5	60.3						
2400	75	63.4	60.0	68.8	44.5	74.7	27.9	60.0	58.4	64.9	43.0	70.4	26.4						
	80	66.2	66.2	69.0	56.9	74.5	40.8	63.0	63.0	65.1	55.3	70.2	39.4						
	85	69.6	69.6	69.8	69.6	74.4	53.4	66.2	66.2	66.3	66.3	70.1	51.9						
	90	72.7	72.7	72.8	72.8	74.5	66.0	69.1	69.1	69.2	69.2	70.3	64.4						
2640	75	64.4	63.6	69.5	46.4	75.3	28.4	61.1	61.1	65.5	44.7	70.9	26.9						
	80	67.8	67.8	69.8	60.1	75.1	42.6	64.5	64.5	65.9	58.5	70.7	41.2						
	85	71.2	71.2	71.3	71.3	75.0	56.3	67.6	67.6	67.7	67.7	70.7	54.7						
	90	74.3	74.3	74.4	74.4	75.3	70.1	70.5	70.5	70.5	70.5	71.0	68.6						
2880	75	65.6	65.6	70.1	48.7	75.8	28.9	62.3	62.3	66.1	46.6	71.4	27.4						
	80	69.2	69.2	70.5	63.3	75.5	44.4	65.7	65.7	66.5	61.6	71.1	42.7						
	85	72.5	72.5	72.6	72.6	75.5	59.2	68.8	68.8	68.9	68.9	71.1	57.6						
	90	75.5	75.5	75.6	75.6	75.9	74.3	71.6	71.6	71.6	71.6	71.7	71.7						

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. MBH = Total Gross Capacity, SHC = Sensible Heat Capacity

Table 14. Gross cooling capacities (MBH) 6 tons TTA073H condensing unit with 6 tons TWE073E standard/SZVAV/2-speed VFD air handler (IP)

CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		85						95						105					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
2160	75	68.5	59.3	76.3	45.5	84.7	31.1	65.2	57.7	72.8	44.1	81.2	29.9	62.0	56.2	69.2	42.7	77.2	28.5
	80	69.6	69.6	76.3	57.0	84.8	42.8	67.0	67.0	72.7	55.5	81.0	41.4	64.2	64.2	69.0	54.0	77.1	40.0
	85	73.7	73.7	76.0	67.8	84.7	54.2	70.9	70.9	72.4	66.3	80.9	52.8	68.1	68.1	68.9	64.9	77.0	51.6
	90	77.8	77.8	78.0	78.0	84.7	65.7	75.0	75.0	75.1	75.1	80.8	64.3	72.0	72.0	72.1	72.1	77.0	62.9
2400	75	69.9	63.0	77.6	47.7	86.3	31.8	66.7	61.5	73.9	46.2	82.3	30.4	63.2	59.9	70.2	44.8	78.3	29.1
	80	72.1	72.1	77.6	60.3	86.1	44.7	69.3	69.3	74.0	58.9	82.2	43.3	66.4	66.4	70.3	57.3	77.8	41.8
	85	76.3	76.3	77.3	72.3	86.0	57.3	73.4	73.4	73.7	70.8	82.1	55.9	70.4	70.4	69.9	69.3	77.6	54.5
	90	80.6	80.6	80.8	80.8	86.1	70.1	77.7	77.7	77.8	77.8	82.1	68.6	74.6	74.6	74.8	74.8	77.9	67.1
2640	75	71.1	66.6	78.7	49.8	86.9	32.3	67.6	65.0	75.0	48.3	83.3	31.0	64.2	63.0	71.1	47.0	79.2	29.6
	80	74.2	74.2	78.6	63.7	86.8	46.4	71.3	71.3	75.1	62.2	83.2	45.2	68.3	68.3	71.2	60.7	78.7	43.6
	85	78.7	78.7	78.4	76.6	86.6	60.1	75.7	75.7	74.7	74.7	83.0	58.8	72.4	72.4	70.8	70.8	78.5	57.5
	90	83.1	83.1	83.3	83.3	86.9	74.2	80.0	80.0	80.2	80.2	83.4	73.0	76.9	76.9	77.0	77.0	78.8	71.4
2880	75	71.9	70.1	79.6	51.8	87.8	32.8	68.7	68.7	75.8	50.3	84.1	31.6	65.7	65.7	71.8	48.8	79.4	30.0
	80	76.1	76.1	79.8	67.0	87.7	48.2	73.0	73.0	76.1	65.5	84.0	47.0	69.9	69.9	71.9	63.9	79.9	45.6
	85	80.7	80.7	79.3	79.3	87.5	62.9	77.6	77.6	75.4	75.4	83.9	61.6	74.1	74.1	71.6	71.6	79.7	60.2
	90	85.3	85.3	85.5	85.5	87.9	78.6	82.1	82.1	82.2	82.2	84.0	77.2	78.8	78.8	78.9	78.9	80.4	75.9
CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		115						125						135					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
2160	75	58.6	54.7	65.7	41.3	73.0	27.0	56.2	53.6	62.3	40.0	69.2	25.7	58.6	54.7	65.7	41.3	73.0	27.0
	80	61.6	61.6	65.6	52.6	72.9	38.6	59.0	59.0	62.0	51.4	69.1	37.3	61.6	61.6	65.6	52.6	72.9	38.6
	85	65.3	65.3	65.3	63.4	72.7	50.0	62.6	62.6	62.0	61.8	68.9	48.6	65.3	65.3	65.3	63.4	72.7	50.0
	90	69.0	69.0	69.2	69.2	72.8	61.3	66.2	66.2	66.3	66.3	69.1	60.0	69.0	69.0	69.2	69.2	72.8	61.3
2400	75	60.2	58.5	66.6	43.4	73.9	27.6	57.2	55.5	63.1	42.1	70.0	26.3	60.2	58.5	66.6	43.4	73.9	27.6
	80	63.6	63.6	66.7	55.9	73.8	40.4	60.9	60.9	63.0	54.5	69.9	39.1	63.6	63.6	66.7	55.9	73.8	40.4
	85	67.4	67.4	66.3	66.3	73.6	52.9	64.6	64.6	62.9	62.9	69.7	51.5	67.4	67.4	66.3	66.3	73.6	52.9
	90	71.3	71.3	71.4	71.4	73.9	65.7	68.3	68.3	68.4	68.4	70.1	64.3	71.3	71.3	71.4	71.4	73.9	65.7
2640	75	61.5	60.9	67.4	45.5	74.6	28.1	58.6	58.6	63.8	44.1	70.6	26.8	61.5	60.9	67.4	45.5	74.6	28.1
	80	65.3	65.3	67.6	59.2	74.6	42.2	62.5	62.5	63.8	57.7	70.6	40.9	65.3	65.3	67.6	59.2	74.6	42.2
	85	69.3	69.3	67.1	67.1	74.4	55.7	66.3	66.3	63.6	63.6	70.4	54.3	69.3	69.3	67.1	67.1	74.4	55.7
	90	73.3	73.3	73.4	73.4	74.2	69.8	70.0	70.0	70.1	70.1	70.7	67.2	73.3	73.3	73.4	73.4	74.2	69.8
2880	75	62.7	62.7	68.0	47.3	75.3	28.7	59.9	59.9	64.4	45.8	71.2	27.3	62.7	62.7	68.0	47.3	75.3	28.7
	80	66.8	66.8	67.7	62.6	75.2	43.9	63.8	63.8	64.3	60.9	71.1	42.6	66.8	66.8	67.7	62.6	75.2	43.9
	85	70.9	70.9	67.8	67.8	75.0	58.5	67.7	67.7	64.2	64.2	71.0	57.1	70.9	70.9	67.8	67.8	75.0	58.5
	90	75.0	75.0	75.1	75.1	75.9	74.2	71.6	71.6	71.6	71.6	71.7	71.7	75.0	75.0	75.1	75.1	75.9	74.2

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. MBH = Total Gross Capacity, SHC = Sensible Heat Capacity



Performance Data

Table 15. Gross cooling capacities (MBH) 7.5 tons TTA090G condensing unit with 7.5 tons TWE090D standard air handler (IP)

CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		85						95						105					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
2700	75	89.6	75.5	96.9	60.3	105.5	38.8	86.1	73.8	93.6	56.2	101.4	37.4	82.4	72.1	89.5	54.6	97.1	35.8
	80	90.9	89.8	97.5	71.9	105.3	53.6	87.4	87.4	93.7	70.2	101.2	51.8	84.2	84.2	89.7	68.5	96.9	50.2
	85	94.9	94.9	98.0	85.8	105.1	67.6	91.7	91.7	94.2	84.2	101.1	66.2	88.4	88.4	90.3	82.5	96.7	64.6
	90	99.1	99.1	99.4	99.4	105.3	81.6	95.9	95.9	96.0	96.0	101.2	80.0	92.4	92.4	92.5	92.5	97.0	78.4
3000	75	91.2	80.0	98.1	60.4	106.6	39.4	87.6	78.2	94.7	58.8	102.5	38.0	83.8	76.4	90.6	57.1	98.0	36.4
	80	93.2	93.2	98.8	75.8	106.4	56.0	90.0	90.0	95.0	74.2	102.2	54.0	86.6	86.6	90.9	72.4	103.4	54.6
	85	97.6	97.6	99.6	91.2	106.2	71.3	94.3	94.3	95.8	89.6	102.1	70.0	90.8	90.8	91.8	87.9	97.8	68.1
	90	101.9	101.9	102.0	102.0	106.5	86.5	98.5	98.5	98.6	98.6	102.4	85.0	94.9	94.9	95.0	95.0	98.1	83.4
3300	75	92.5	84.3	99.7	62.9	107.5	40.0	88.9	82.6	95.7	61.3	103.3	38.5	85.1	80.8	91.5	59.7	98.8	37.0
	80	95.5	95.5	100.0	79.7	107.3	57.6	92.1	92.1	96.0	78.1	103.1	56.2	88.6	88.6	91.9	76.4	98.6	54.7
	85	99.9	99.9	101.0	96.6	107.2	74.8	96.5	96.5	97.2	95.0	103.0	73.2	92.9	92.9	93.2	93.2	98.6	71.6
	90	104.2	104.2	104.3	104.3	107.6	91.5	100.7	100.7	100.8	100.8	103.4	89.9	96.9	96.9	97.0	97.0	99.1	88.3
3600	75	93.8	88.7	100.6	65.5	108.3	40.6	90.1	86.9	96.5	63.9	104.0	39.1	86.3	85.1	92.3	61.9	99.5	37.6
	80	97.4	97.4	101.0	83.7	108.0	59.8	94.0	94.0	97.0	82.0	103.8	58.4	90.3	90.3	92.8	80.2	99.3	56.9
	85	101.9	101.9	102.3	102.0	108.0	78.3	98.4	98.4	98.5	98.5	103.7	76.8	94.6	94.6	94.7	94.7	99.3	75.1
	90	106.1	106.1	106.2	106.2	108.5	96.4	102.5	102.5	102.6	102.6	104.3	94.9	98.6	98.6	98.7	98.7	99.9	93.2
CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		115						125						125					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
2700	75	78.6	70.3	85.3	52.9	92.4	34.2	74.9	68.5	80.8	51.1	87.4	32.5						
	80	80.8	80.8	85.5	66.7	92.3	48.6	77.2	77.2	81.0	64.8	87.2	46.9						
	85	84.8	84.8	86.1	80.7	92.1	62.8	81.0	81.0	81.7	78.8	87.1	60.9						
	90	88.7	88.7	88.8	88.8	92.4	76.7	84.6	84.6	84.7	84.7	87.4	74.8						
3000	75	80.0	74.6	86.3	55.5	93.3	34.8	76.1	72.8	81.7	53.7	88.2	33.1						
	80	83.0	83.0	86.6	70.6	93.1	50.8	79.2	79.2	82.0	68.7	88.0	49.1						
	85	87.1	87.1	87.6	86.1	93.1	66.3	83.0	83.0	83.2	83.2	87.9	64.4						
	90	90.9	90.9	91.0	91.0	93.4	81.6	86.6	86.6	86.7	86.7	88.3	79.7						
3300	75	81.2	78.9	87.1	58.0	94.0	35.4	77.2	77.0	82.4	56.3	88.8	33.7						
	80	84.9	84.9	87.5	74.5	93.8	53.0	80.9	80.9	82.9	72.6	88.6	51.3						
	85	89.0	89.0	89.1	89.1	93.8	69.8	84.7	84.7	84.8	84.8	88.6	67.9						
	90	92.8	92.8	92.9	92.9	94.3	86.5	88.2	88.2	88.3	88.3	89.2	84.6						
3600	75	82.2	82.2	87.8	60.6	94.6	36.0	78.3	78.3	83.0	58.1	89.3	34.3						
	80	86.5	86.5	88.4	78.4	94.4	55.2	82.3	82.3	83.6	76.4	89.1	53.5						
	85	90.5	90.5	90.6	90.6	94.5	73.3	86.1	86.1	86.2	86.2	89.2	71.4						
	90	94.3	94.3	94.4	94.4	95.2	91.4	89.6	89.6	89.6	89.6	90.0	89.4						

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. MBH = Total Gross Capacity, SHC = Sensible Heat Capacity

Table 16. Gross cooling capacities (MBH) 7.5 tons TTA090H condensing unit with 7.5 tons TWE090E standard/SZVAV/2-speed VFD air handler (IP)

CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		85						95						105					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
2700	75	90.0	77.8	98.1	58.9	106.1	39.1	86.0	76.0	93.5	57.1	101.2	37.3	81.7	74.0	88.8	55.3	96.0	35.5
	80	91.7	91.7	98.3	74.0	106.0	54.2	88.2	88.2	93.7	72.2	101.0	52.5	84.4	84.4	89.0	70.2	95.8	50.7
	85	96.4	96.4	98.9	88.8	105.9	69.4	92.6	92.6	94.5	86.9	100.9	67.6	88.6	88.6	89.8	85.0	95.8	65.8
	90	100.8	100.8	101.0	101.0	106.1	84.4	96.9	96.9	97.0	97.0	101.2	82.6	92.7	92.7	92.8	92.8	96.0	80.8
3000	75	91.6	82.6	99.3	61.7	107.1	39.8	87.5	80.7	94.7	59.8	102.1	38.2	83.2	78.8	89.8	57.9	96.8	36.1
	80	94.4	94.4	99.6	78.3	106.9	56.5	90.6	90.6	95.0	76.4	101.9	54.8	86.7	86.7	90.1	74.5	96.6	53.0
	85	99.1	99.1	100.5	94.6	106.8	73.2	95.2	95.2	96.0	92.8	101.8	71.4	90.9	90.9	91.3	90.9	96.6	69.6
	90	103.5	103.5	103.6	103.6	107.2	89.9	99.3	99.3	99.4	99.4	102.2	88.1	94.9	94.9	95.0	95.0	97.0	86.3
3300	75	92.9	87.3	100.3	64.3	107.8	40.2	88.8	85.5	95.6	62.5	102.7	39.0	84.5	83.5	90.6	60.6	97.4	36.7
	80	96.7	96.7	100.7	82.6	107.6	58.7	92.7	92.7	96.0	80.7	102.5	57.0	88.6	88.6	91.1	78.8	97.2	55.3
	85	101.4	101.4	102.0	100.4	107.6	76.9	97.2	97.2	97.5	97.5	102.5	75.1	92.8	92.8	92.9	92.9	97.2	73.2
	90	105.6	105.6	105.7	105.7	108.1	95.0	101.2	101.2	101.3	101.3	103.0	93.6	96.6	96.6	96.6	96.6	97.7	91.8
3600	75	94.2	92.1	101.1	66.8	108.5	40.5	89.7	89.7	96.3	65.0	103.2	39.7	85.7	85.7	91.3	63.0	97.8	38.2
	80	98.6	98.6	101.6	86.8	108.2	60.9	94.5	94.5	96.9	85.0	103.0	59.2	90.2	90.2	91.9	83.0	97.6	57.6
	85	103.2	103.2	103.4	103.4	108.2	81.3	98.9	98.9	99.0	99.0	103.1	78.7	94.4	94.4	94.4	94.4	97.7	76.9
	90	107.3	107.3	107.4	107.4	109.1	101.0	102.7	102.7	102.8	102.8	103.5	98.2	97.9	97.9	97.9	97.9	98.4	97.3
CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		115						125						135					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
2700	75	77.4	72.0	83.9	53.4	90.5	33.7	72.8	70.0	78.7	51.4	84.5	31.7	77.4	72.0	83.9	53.4	90.5	33.7
	80	80.5	80.5	84.1	68.3	90.3	48.8	76.2	76.2	79.0	66.2	84.3	46.8	80.5	80.5	84.1	68.3	90.3	48.8
	85	84.5	84.5	85.0	83.1	90.3	63.9	79.9	79.9	80.1	79.8	84.3	61.8	84.5	84.5	85.0	83.1	90.3	63.9
	90	88.1	88.1	88.2	88.2	90.6	78.8	83.1	83.1	83.2	83.2	84.6	76.7	88.1	88.1	88.2	88.2	90.6	78.8
3000	75	78.7	76.8	84.8	56.0	91.1	34.2	74.0	74.0	79.4	54.0	85.1	32.2	78.7	76.8	84.8	56.0	91.1	34.2
	80	82.5	82.5	85.1	72.5	91.0	51.1	78.0	78.0	79.8	70.4	84.9	49.1	82.5	82.5	85.1	72.5	91.0	51.1
	85	86.4	86.4	86.5	86.5	91.0	67.8	81.6	81.6	81.7	81.7	84.9	65.5	86.4	86.4	86.5	86.5	91.0	67.8
	90	90.1	90.1	90.1	90.1	91.4	84.3	84.7	84.7	84.8	84.8	85.4	82.2	90.1	90.1	90.1	90.1	91.4	84.3
3300	75	80.0	80.0	85.5	58.6	91.7	34.8	75.6	75.6	80.1	56.5	85.5	32.8	80.0	80.0	85.5	58.6	91.7	34.8
	80	84.2	84.2	85.9	76.7	91.5	53.4	79.5	79.5	80.6	74.7	85.3	51.4	84.2	84.2	85.9	76.7	91.5	53.4
	85	88.1	88.1	88.2	88.2	91.5	71.6	82.9	82.9	83.0	83.0	85.4	69.2	88.1	88.1	88.2	88.2	91.5	71.6
	90	91.5	91.5	91.6	91.6	92.1	89.8	85.9	85.9	85.9	85.9	86.0	86.0	91.5	91.5	91.6	91.6	92.1	89.8
3600	75	81.4	81.4	86.0	61.0	92.1	35.4	76.9	76.9	80.6	58.9	85.9	33.4	81.4	81.4	86.0	61.0	92.1	35.4
	80	85.6	85.6	86.7	81.0	91.9	55.6	80.7	80.7	81.3	78.9	85.7	53.6	85.6	85.6	86.7	81.0	91.9	55.6
	85	89.5	89.5	89.5	89.5	92.0	75.4	84.1	84.1	84.1	84.1	85.8	72.8	89.5	89.5	89.5	89.5	92.0	75.4
	90	92.6	92.6	92.6	92.6	92.8	92.8	86.7	86.7	86.7	86.7	86.8	86.8	92.6	92.6	92.6	92.6	92.8	92.8

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. MBH = Total Gross Capacity, SHC = Sensible Heat Capacity



Performance Data

Table 17. Gross cooling capacities (MBH) 7.5 tons TTA090G condensing unit with 10 tons TWE120D standard air handler (IP)

CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		85						95						105					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
3100	75	95.1	84.0	103.7	63.6	111.9	41.4	91.3	82.2	99.7	62.0	107.8	40.0	87.3	80.4	95.5	60.3	103.4	38.5
	80	98.1	98.1	103.8	79.9	111.5	58.3	94.8	94.8	101.1	78.1	107.5	57.0	91.2	91.2	95.7	76.5	103.0	55.5
	85	102.6	102.6	104.5	96.0	111.3	74.9	99.3	99.3	102.1	94.3	107.3	73.4	95.7	95.7	96.3	92.6	103.0	71.8
	90	106.9	106.9	106.9	106.9	110.8	91.1	103.5	103.5	103.5	103.5	106.8	89.6	99.9	99.9	99.9	99.9	102.5	88.0
3400	75	97.2	88.8	104.7	66.2	112.9	42.1	93.4	87.0	100.7	64.6	108.7	40.7	89.5	85.1	96.4	62.7	104.2	39.1
	80	100.4	100.4	104.9	83.9	112.4	60.5	97.0	97.0	102.1	82.2	108.3	59.1	93.3	93.3	96.8	80.4	103.9	57.7
	85	104.9	104.9	106.1	101.5	112.2	78.5	101.5	101.5	102.5	99.9	108.1	77.0	97.8	97.8	97.8	97.8	103.8	75.4
	90	109.2	109.2	109.2	109.2	111.6	96.3	105.7	105.7	105.7	105.7	107.5	94.8	101.9	101.9	101.9	101.9	103.2	93.2
3700	75	98.5	93.2	105.6	68.8	113.3	42.7	94.7	91.4	101.5	66.9	109.5	41.3	90.7	89.5	96.5	65.1	104.6	39.8
	80	102.3	102.3	105.9	87.8	113.2	62.8	98.9	98.9	102.3	86.2	109.0	61.4	95.1	95.1	97.7	84.4	104.6	59.9
	85	106.9	106.9	107.4	105.0	113.0	82.1	103.4	103.4	103.4	103.4	108.9	80.6	99.6	99.6	99.6	99.6	104.5	78.9
	90	111.1	111.1	111.1	111.1	112.5	99.2	107.5	107.5	107.5	107.5	108.1	99.9	103.6	103.6	103.6	103.6	103.7	98.3
4000	75	99.6	97.6	106.4	71.4	114.4	43.3	95.7	95.7	102.3	69.2	110.2	41.9	91.9	91.9	96.8	72.8	105.6	40.4
	80	104.0	104.0	106.7	91.8	113.8	65.0	100.5	100.5	102.7	90.1	109.6	63.6	96.7	96.7	98.5	88.4	105.2	62.2
	85	107.7	107.7	107.7	107.7	113.6	82.2	105.0	105.0	105.0	105.0	109.5	84.1	101.1	101.1	101.1	101.1	105.1	82.5
	90	111.8	111.8	111.8	111.8	113.7	102.3	109.0	109.0	109.0	109.0	109.7	109.7	105.1	105.1	105.1	105.1	106.2	103.4
CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		115						125						135					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
3100	75	84.2	78.8	91.1	58.6	98.4	36.8	80.7	77.1	86.5	56.9	89.7	34.5	78.1	74.5	81.2	53.8	88.3	32.1
	80	87.6	87.6	91.3	74.6	98.4	53.8	83.9	83.9	86.6	72.6	90.5	51.4	81.2	77.6	84.3	55.0	91.4	33.8
	85	91.9	91.9	92.0	90.6	98.3	70.0	87.7	87.7	87.7	87.7	90.7	68.1	84.3	80.7	83.8	58.4	95.0	35.5
	90	95.9	95.9	95.9	95.9	97.7	86.2	91.5	91.5	91.5	91.5	92.5	84.3	88.3	84.7	87.8	61.0	99.0	37.2
3400	75	85.4	83.2	91.9	60.8	99.4	37.5	81.8	81.5	86.7	58.9	94.0	35.8	79.3	75.7	82.4	54.0	89.8	32.8
	80	89.5	89.5	92.3	78.6	99.1	56.0	85.5	85.5	86.9	76.4	93.8	54.3	82.4	78.8	85.9	56.4	94.0	34.5
	85	93.8	93.8	93.8	93.8	99.0	73.6	89.5	89.5	89.5	89.5	93.8	71.6	86.5	82.9	86.0	58.8	98.0	36.2
	90	97.8	97.8	97.8	97.8	98.4	91.4	93.2	93.2	93.2	93.2	94.2	89.5	90.5	86.9	89.0	60.6	102.0	37.9
3700	75	86.6	86.6	92.6	63.9	99.8	38.1	83.0	83.0	87.9	61.2	94.4	36.4	80.7	77.1	84.3	54.0	91.4	33.8
	80	91.2	91.2	93.2	82.5	99.7	58.3	86.9	86.9	88.3	80.5	94.4	56.6	84.3	80.7	87.8	58.4	95.0	35.5
	85	95.5	95.5	95.5	95.5	99.7	77.1	91.0	91.0	91.0	91.0	94.3	75.2	88.3	84.7	87.8	61.0	99.0	37.2
	90	99.4	99.4	99.4	99.4	98.9	96.6	94.6	94.6	94.6	94.6	95.0	93.5	92.5	88.9	91.4	62.7	103.0	38.9
4000	75	88.0	88.0	92.7	66.5	100.6	38.8	84.2	84.2	88.8	68.6	95.1	37.1	82.4	78.8	85.9	56.4	94.0	34.5
	80	92.6	92.6	93.9	86.5	100.3	60.8	88.2	88.2	89.1	84.4	94.9	58.8	86.5	82.9	89.0	58.8	98.0	36.2
	85	96.9	96.9	96.9	96.9	100.2	80.7	92.3	92.3	92.3	92.3	94.9	78.7	90.5	86.9	89.0	60.6	102.0	37.9
	90	100.7	100.7	100.7	100.7	100.9	99.3	95.8	95.8	95.8	95.8	95.8	95.8	96.8	93.2	95.3	62.1	106.0	39.6

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. MBH = Total Gross Capacity, SHC = Sensible Heat Capacity

Table 18. Gross cooling capacities (MBH) 10 tons TTA120G condensing unit with 10 tons TWE120D standard air handler (IP)

CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		85						95						105					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
3600	75	116.1	99.3	127.3	76.1	138.2	51.0	111.2	97.0	121.6	73.9	132.1	48.9	105.2	94.2	115.1	71.4	125.5	46.6
	80	118.2	118.2	127.8	95.0	138.3	70.4	113.9	113.9	122.2	92.6	132.1	68.2	109.5	109.5	116.3	90.1	125.5	66.0
	85	124.8	124.8	128.6	113.4	138.3	89.7	120.2	120.2	123.1	111.0	132.1	87.4	115.4	115.4	117.4	108.5	125.6	84.9
	90	131.1	131.1	131.1	131.1	138.2	108.0	126.3	126.3	126.3	126.3	132.2	105.7	121.1	121.1	121.1	121.1	125.7	103.3
4000	75	118.3	105.2	129.1	79.7	139.5	51.8	113.2	102.8	123.3	77.4	133.2	49.6	108.1	100.4	117.1	75.0	126.5	47.3
	80	122.0	122.0	129.8	100.4	139.5	73.3	117.3	117.3	124.0	98.0	133.2	71.1	112.6	112.6	117.9	95.4	126.5	68.8
	85	128.7	128.7	130.7	120.6	139.5	94.3	123.9	123.9	125.3	118.2	133.2	92.0	118.7	118.7	119.5	115.6	126.6	89.5
	90	134.8	134.8	134.8	134.8	139.2	114.6	129.7	129.7	129.7	129.7	133.5	112.2	124.1	124.1	124.1	124.1	126.7	109.7
4400	75	120.2	111.1	130.5	83.2	140.5	52.5	115.0	108.7	124.5	80.5	134.1	50.2	109.8	106.2	117.5	78.3	127.2	48.0
	80	125.2	125.2	131.4	105.7	140.4	76.1	120.3	120.3	125.5	103.2	134.0	74.0	115.2	115.2	119.3	100.7	127.2	71.7
	85	131.9	131.9	133.1	127.7	140.3	98.9	126.8	126.8	127.4	125.0	133.9	96.5	121.3	121.3	121.3	121.3	127.1	94.0
	90	137.6	137.6	137.6	137.6	139.9	121.0	132.1	132.1	132.1	132.1	134.1	118.6	126.0	126.0	126.0	126.0	127.6	116.1
4800	75	122.0	117.0	131.7	86.1	141.2	53.2	116.6	114.5	125.7	84.3	134.9	51.1	111.1	111.1	119.4	81.1	128.0	48.8
	80	128.0	128.0	132.7	110.9	141.1	79.0	122.9	122.9	126.8	108.4	134.6	76.8	117.5	117.5	120.5	105.9	127.7	74.5
	85	134.5	134.5	134.8	132.0	141.2	103.4	129.2	129.2	129.2	129.2	134.4	101.0	123.4	123.4	123.4	123.4	127.5	98.5
	90	139.5	139.5	139.5	139.5	141.4	127.4	133.6	133.6	133.6	133.6	134.8	125.0	127.1	127.1	127.1	127.1	127.9	122.5
CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		115						125						125					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
3600	75	101.6	92.4	109.4	69.2	118.4	44.2	97.7	90.5	104.3	66.9	110.8	41.6						
	80	105.1	105.1	110.3	87.6	118.5	63.5	100.9	100.9	104.6	85.2	110.7	61.0						
	85	110.3	110.3	111.2	105.9	118.5	82.3	105.1	105.1	105.1	105.1	110.7	79.4						
	90	115.5	115.5	115.5	115.5	118.3	100.6	109.0	109.0	109.0	109.0	110.8	97.7						
4000	75	103.3	98.1	110.6	72.7	119.4	44.9	99.0	96.1	105.2	69.9	111.5	42.3						
	80	107.8	107.8	111.6	92.8	119.3	66.4	103.0	103.0	106.3	90.2	111.3	63.7						
	85	113.1	113.1	113.1	113.1	119.2	86.8	107.0	107.0	107.0	107.0	111.1	83.8						
	90	117.8	117.8	117.8	117.8	119.3	107.1	110.5	110.5	110.5	110.5	111.2	104.1						
4400	75	104.8	103.9	111.9	75.3	119.8	45.6	100.2	100.2	105.8	73.8	112.1	43.1						
	80	110.0	110.0	112.9	98.0	119.8	69.2	104.7	104.7	106.4	95.3	111.7	66.6						
	85	115.4	115.4	115.4	115.4	119.6	91.3	108.8	108.8	108.8	108.8	111.6	88.2						
	90	119.2	119.2	119.2	119.2	119.4	113.4	110.9	110.9	110.9	110.9	112.0	110.4						
4800	75	106.3	106.3	112.8	78.4	120.6	46.5	101.7	101.7	106.4	75.8	112.5	43.9						
	80	111.9	111.9	113.6	103.0	120.2	72.1	106.1	106.1	107.0	100.2	111.9	69.4						
	85	117.2	117.2	117.2	117.2	119.9	95.7	110.1	110.1	110.1	110.1	111.8	92.7						
	90	119.4	119.4	119.4	119.4	120.2	120.2	112.2	112.2	112.2	112.2	112.2	112.2						

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. MBH = Total Gross Capacity, SHC = Sensible Heat Capacity



Performance Data

Table 19. Gross cooling capacities (MBH) 10 tons TTA120H condensing unit with 10 tons TWE120E standard/SZVAV/ 2-speed VFD air handler (IP)

CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		85						95						105					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
3600	75	117.0	101.0	127.3	76.8	137.7	50.9	112.2	98.7	122.0	74.7	132.0	48.8	107.2	96.3	116.4	72.5	126.0	47.1
	80	119.3	119.3	127.6	96.1	137.5	70.7	115.4	115.4	122.4	93.9	131.8	68.7	110.6	110.6	116.8	91.6	125.9	66.6
	85	125.2	125.2	128.5	115.2	137.3	90.4	120.9	120.9	123.3	113.0	131.7	88.4	116.2	116.2	117.9	110.7	125.8	86.2
	90	130.9	130.9	131.1	131.1	136.3	109.0	126.4	126.4	126.5	126.5	132.0	107.4	121.5	121.5	121.7	121.7	126.2	105.2
4000	75	119.0	107.0	128.9	80.3	139.0	51.6	114.2	104.7	123.5	78.2	133.2	49.6	109.0	102.3	117.8	75.9	127.2	47.6
	80	122.7	122.7	129.3	101.5	138.8	73.7	118.3	118.3	124.0	99.3	133.0	71.7	113.6	113.6	118.4	96.9	127.0	69.6
	85	128.7	128.7	129.7	122.7	137.3	94.7	124.1	124.1	125.3	120.4	133.0	93.1	119.3	119.3	119.9	118.1	127.0	91.0
	90	134.3	134.3	134.4	134.4	137.8	116.0	129.5	129.5	129.6	129.6	132.0	113.8	124.4	124.4	124.5	124.5	127.4	112.1
4400	75	120.8	113.0	130.2	83.7	138.7	51.9	115.9	110.7	124.7	81.5	134.3	50.4	110.7	108.2	118.9	79.1	128.1	48.4
	80	125.6	125.6	130.6	123.9	138.6	76.2	121.0	121.0	125.3	104.6	134.0	74.7	116.1	116.1	119.6	102.3	127.9	72.7
	85	131.6	131.6	132.3	129.9	138.5	99.4	126.8	126.8	127.1	127.1	134.0	97.2	121.7	121.7	121.9	121.9	127.9	95.7
	90	135.8	135.8	135.9	135.9	139.3	123.1	132.0	132.0	132.1	132.1	133.3	120.9	126.7	126.7	126.8	126.8	128.5	119.1
4800	75	122.2	119.0	131.3	86.8	139.7	52.2	117.5	116.6	125.7	84.6	135.1	51.3	112.2	112.2	119.9	82.2	128.9	49.2
	80	128.0	128.0	131.9	129.9	139.4	79.2	123.3	123.3	126.5	110.0	134.8	77.6	118.3	118.3	120.8	107.6	128.6	75.5
	85	133.9	133.9	134.1	134.1	139.4	106.3	129.0	129.0	129.1	129.1	134.8	101.8	123.8	123.8	123.9	123.9	128.6	100.5
	90	138.2	138.2	138.3	138.3	140.8	130.2	132.9	132.9	133.0	133.0	134.4	127.8	128.5	128.5	128.6	128.6	129.4	126.0
CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		115						125						135					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
3600	75	101.9	93.8	110.5	70.1	119.6	44.6	96.4	91.2	104.3	67.6	112.7	42.2	91.9	86.7	104.3	62.1	112.7	42.2
	80	105.8	105.8	111.0	89.1	119.5	64.4	100.7	100.7	104.8	86.5	112.6	62.1	95.8	90.9	104.8	86.5	112.6	62.1
	85	111.2	111.2	112.2	108.2	119.5	83.8	105.8	105.8	106.2	105.7	112.6	81.3	101.2	101.2	106.2	105.7	112.6	81.3
	90	116.2	116.2	116.4	116.4	119.8	102.8	110.4	110.4	110.6	110.6	113.0	100.3	106.2	106.2	110.6	110.6	113.0	100.3
4000	75	103.7	99.8	111.8	73.5	120.7	45.4	98.1	97.1	105.4	70.8	113.6	43.1	93.7	88.8	105.4	70.8	113.6	43.1
	80	108.6	108.6	112.4	94.5	120.5	67.5	103.2	103.2	106.0	91.8	113.5	65.1	98.6	93.7	106.0	91.8	113.5	65.1
	85	114.0	114.0	114.2	114.2	120.5	88.6	108.3	108.3	108.4	108.4	113.5	86.0	104.0	104.0	108.4	108.4	113.5	86.0
	90	118.9	118.9	119.0	119.0	121.0	109.8	112.8	112.8	112.9	112.8	114.1	107.2	108.9	108.9	112.9	112.8	114.1	107.2
4400	75	105.1	105.1	112.8	76.6	121.5	46.2	99.8	99.8	106.3	74.0	114.4	43.9	95.1	90.2	106.3	74.0	114.4	43.9
	80	110.9	110.9	113.6	99.8	121.3	70.4	105.3	105.3	107.1	97.1	114.2	67.9	100.9	96.0	107.1	97.1	114.2	67.9
	85	116.2	116.2	116.4	116.4	121.3	93.2	110.3	110.3	110.3	110.3	114.3	90.8	106.2	106.2	110.3	110.3	114.3	90.8
	90	120.9	120.9	121.0	121.0	122.0	116.7	114.6	114.6	114.6	114.6	115.1	112.9	111.9	111.9	114.6	114.6	115.1	112.9
4800	75	107.1	107.1	113.7	79.8	122.2	47.0	101.6	101.6	107.1	77.1	114.7	45.7	97.1	92.2	107.1	77.1	114.7	45.7
	80	112.9	112.9	114.6	105.1	122.0	73.2	107.0	107.0	108.1	102.3	114.8	70.6	102.9	98.0	108.1	102.3	114.8	70.6
	85	118.1	118.1	118.2	118.2	122.0	97.6	111.9	111.9	112.0	112.0	114.9	95.5	108.1	108.1	112.0	112.0	114.9	95.5
	90	122.6	122.6	122.6	122.6	122.9	122.9	116.0	116.0	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1	116.1

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. MBH = Total Gross Capacity, SHC = Sensible Heat Capacity

Table 20. Gross cooling capacities (MBH) one compressor - 10 tons TTA120J condensing unit with 10 tons TWE120D standard/SZVAV/2-speed VFD air handler (IP)

CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		85						95						105					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
3600	75	69.7	69.7	73.1	55.0	79.4	31.3	67.4	67.4	70.4	53.9	76.1	30.2	65.1	65.1	67.7	52.8	73.3	29.3
	80	73.1	73.1	73.2	73.2	79.2	50.8	70.6	70.6	70.7	70.7	75.9	49.8	68.2	68.2	68.2	68.2	72.7	48.7
	85	76.8	76.8	77.0	77.0	79.0	69.3	74.1	74.1	74.2	74.2	75.7	68.1	71.3	71.3	71.8	71.8	72.5	67.0
	90	80.5	80.5	80.6	80.6	80.7	77.5	77.4	77.4	77.7	77.7	78.0	72.8	74.4	74.4	74.5	74.5	74.5	74.5
4000	75	71.3	71.3	73.7	58.2	80.0	32.1	68.6	68.6	70.9	54.6	76.9	31.2	66.2	66.2	68.2	56.0	73.8	30.2
	80	74.6	74.6	74.6	74.6	79.7	53.9	71.9	71.9	72.0	72.0	76.4	52.8	69.3	69.3	69.3	69.3	73.1	51.8
	85	78.3	78.3	78.4	78.4	79.7	74.2	75.4	75.4	75.5	75.5	76.4	73.0	72.5	72.5	73.0	73.0	73.1	71.8
	90	82.0	82.0	82.7	82.7	83.0	77.9	78.8	78.8	79.0	79.0	79.1	73.4	75.6	75.6	75.7	75.7	75.9	75.9
4400	75	71.9	71.9	74.2	61.4	80.4	33.0	69.6	69.6	71.3	60.3	77.4	32.1	67.1	67.1	68.6	59.2	74.2	31.1
	80	75.8	75.8	75.8	75.8	80.2	56.9	73.0	73.0	73.0	73.0	76.8	55.9	70.2	70.2	70.2	70.2	73.5	53.3
	85	79.6	79.6	79.7	79.7	80.3	79.2	76.5	76.5	76.7	76.7	77.3	75.5	73.5	73.5	73.6	73.6	73.6	73.6
	90	83.3	83.3	83.5	83.5	83.9	83.9	80.0	80.0	80.1	80.1	80.3	80.3	76.5	76.5	76.6	76.6	76.9	76.9
4800	75	72.9	72.9	74.6	64.6	80.9	33.9	70.2	70.2	71.7	63.4	77.8	33.0	67.9	67.9	69.0	62.3	74.5	31.9
	80	76.8	76.8	76.8	76.8	80.3	60.7	73.9	73.9	74.0	74.0	77.3	58.2	71.1	71.1	71.1	71.1	73.8	54.0
	85	80.6	80.6	80.9	80.9	81.1	81.1	77.5	77.5	77.6	77.6	77.7	77.7	74.3	74.3	74.4	74.4	74.5	74.5
	90	84.4	84.4	84.5	84.5	84.6	84.6	80.9	80.9	81.0	81.0	81.1	81.1	77.4	77.4	77.5	77.5	77.6	77.6
CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		115						125						135					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
3600	75	62.6	62.6	64.8	51.7	70.1	28.3	59.9	59.9	61.8	50.4	66.5	27.2	57.1	57.1	58.6	46.3	64.1	25.1
	80	65.6	65.6	65.6	65.6	69.4	47.7	62.8	62.8	62.9	62.9	66.1	46.6	59.1	59.1	59.1	59.1	62.1	45.1
	85	68.3	68.3	68.7	68.7	69.2	65.7	65.3	65.3	65.4	65.4	65.8	64.5	61.1	61.1	61.1	61.1	61.1	61.1
	90	71.2	71.2	71.3	71.3	71.4	71.4	67.8	67.8	67.9	67.9	68.0	68.0	63.1	63.1	63.1	63.1	63.1	63.1
4000	75	63.6	63.6	65.3	54.8	70.5	29.2	60.8	60.8	62.2	53.6	66.8	28.1	57.6	57.6	58.6	47.3	64.6	26.1
	80	66.6	66.6	66.6	66.6	69.8	49.4	63.7	63.7	63.8	63.8	66.4	48.1	59.6	59.6	59.6	59.6	62.6	46.1
	85	69.4	69.4	69.5	69.5	69.6	69.6	66.2	66.2	66.3	66.3	66.3	66.3	61.6	61.6	61.6	61.6	61.6	61.6
	90	72.2	72.2	72.3	72.3	72.4	72.4	68.7	68.7	68.8	68.8	68.9	68.9	63.6	63.6	63.6	63.6	63.6	63.6
4400	75	64.5	64.5	65.7	58.0	70.7	30.0	61.7	61.7	62.7	56.7	66.9	28.9	58.5	58.5	59.5	48.3	65.1	27.1
	80	67.4	67.4	67.4	67.4	70.1	52.0	64.5	64.5	64.5	64.5	66.7	50.8	60.4	60.4	60.4	60.4	62.4	48.4
	85	70.3	70.3	70.4	70.4	70.5	70.5	67.0	67.0	67.1	67.1	67.2	67.2	62.3	62.3	62.3	62.3	62.3	62.3
	90	73.1	73.1	73.2	73.2	73.3	73.3	69.4	69.4	69.5	69.5	69.6	69.6	64.1	64.1	64.1	64.1	64.1	64.1
4800	75	65.2	65.2	66.0	61.1	70.9	30.8	62.3	62.3	63.0	59.8	67.4	29.8	59.1	59.1	60.1	49.3	65.6	28.1
	80	68.1	68.1	68.1	68.1	70.4	54.7	65.1	65.1	65.1	65.1	67.1	53.4	61.1	61.1	61.1	61.1	62.1	50.1
	85	71.1	71.1	71.2	71.2	71.3	71.3	67.7	67.7	67.8	67.8	67.9	67.9	64.1	64.1	64.1	64.1	64.1	64.1
	90	73.8	73.8	73.9	73.9	73.9	73.9	70.1	70.1	70.1	70.1	70.2	70.2	65.1	65.1	65.1	65.1	65.1	65.1

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. MBH = Total Gross Capacity, SHC = Sensible Heat Capacity



Performance Data

Table 21. Gross cooling capacities (MBH) both compressors - 10 tons TTA120J condensing unit with 10 tons TWE120D standard/SZVAV/2-speed VFD air handler (IP)

CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		85						95						105					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
3600	75	116.8	100.7	127.8	76.6	137.8	51.6	112.3	98.6	122.8	74.6	132.8	48.9	107.5	96.3	117.6	72.5	127.1	46.9
	80	117.7	117.7	127.3	95.8	137.3	71.2	113.8	113.8	122.4	93.7	132.3	68.4	109.7	109.7	117.2	91.5	126.6	66.5
	85	123.4	123.4	127.0	112.6	136.4	91.0	119.3	119.3	122.0	110.5	131.8	87.9	115.1	115.1	116.8	108.3	126.1	85.9
	90	128.8	128.8	128.9	123.4	136.1	108.6	124.6	124.6	124.9	120.3	131.3	104.9	120.1	120.1	120.4	116.7	125.6	102.8
4000	75	118.8	106.8	129.4	80.1	139.8	51.7	113.7	104.5	124.4	78.1	134.0	49.7	108.8	102.2	119.1	76.0	128.3	47.7
	80	121.2	121.2	129.0	101.2	139.3	73.4	117.1	117.1	124.0	99.1	133.5	71.4	112.8	112.8	118.7	96.9	127.8	69.4
	85	126.9	126.9	128.6	119.4	138.9	95.1	122.7	122.7	123.5	117.3	132.9	93.1	118.2	118.2	118.2	115.1	127.2	91.1
	90	132.3	132.3	132.8	126.9	138.4	113.4	127.8	127.8	127.8	123.7	132.4	111.2	123.1	123.1	123.1	120.9	126.7	109.1
4400	75	120.5	112.8	130.8	83.6	141.1	52.5	115.1	110.4	125.7	81.6	135.1	50.5	110.9	108.4	120.2	79.5	129.3	48.5
	80	124.1	124.1	130.5	106.7	140.7	76.5	119.9	119.9	125.3	104.6	134.5	74.4	115.4	115.4	120.0	102.3	128.7	72.4
	85	129.8	129.8	129.9	126.1	140.2	100.0	125.4	125.4	125.6	121.6	134.0	98.3	120.7	120.7	120.7	117.5	128.1	96.3
	90	135.1	135.1	135.1	135.1	139.8	119.7	130.4	130.4	130.4	129.5	134.0	121.4	125.4	125.4	125.4	125.4	127.5	115.2
4800	75	122.1	118.8	131.9	87.1	142.2	53.3	116.4	116.4	126.7	85.1	136.0	51.3	111.9	111.9	121.2	83.0	130.1	49.3
	80	126.6	126.6	131.7	112.1	141.8	79.6	122.2	122.2	126.5	109.9	135.4	77.4	117.6	117.6	120.7	107.6	129.4	75.4
	85	132.3	132.3	132.3	128.5	141.3	104.9	127.7	127.7	127.7	125.5	134.9	102.6	122.8	122.8	122.8	119.6	128.8	100.4
	90	137.7	137.7	137.7	137.7	140.9	125.8	133.5	133.5	134.6	131.7	134.6	123.0	127.4	127.4	127.4	126.8	128.1	121.2
CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		115						125						125					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
3600	75	102.6	94.0	112.1	70.3	121.2	44.8	97.6	91.7	106.3	68.0	114.7	42.6						
	80	105.4	105.4	111.7	89.2	120.7	64.4	100.8	100.8	105.9	86.8	114.1	62.2						
	85	110.5	110.5	111.3	106.0	120.1	83.9	105.6	105.6	105.7	102.8	113.6	81.6						
	90	115.3	115.3	115.4	115.4	119.6	100.6	110.0	110.0	110.2	108.8	113.0	98.2						
4000	75	103.6	99.8	113.4	73.8	122.3	45.7	99.1	97.6	107.4	71.5	115.6	43.4						
	80	108.3	108.3	113.1	94.6	121.7	67.4	103.3	103.3	107.0	92.1	115.1	65.1						
	85	113.4	113.4	113.6	109.8	121.1	88.6	108.1	108.1	108.1	104.8	114.5	86.1						
	90	118.0	118.0	118.0	118.0	120.5	106.8	112.3	112.3	112.4	112.4	113.9	104.4						
4400	75	105.2	105.2	114.5	77.3	123.1	46.5	100.4	100.4	108.0	75.0	116.4	44.3						
	80	110.6	110.6	114.3	100.0	122.5	70.4	105.5	105.5	107.9	97.5	115.8	68.1						
	85	115.7	115.7	115.7	112.8	121.9	93.4	110.2	110.2	110.5	107.7	115.2	92.0						
	90	120.1	120.1	120.1	120.1	121.3	112.9	114.2	114.2	114.3	114.3	114.5	110.5						
4800	75	107.2	107.2	115.4	80.8	123.9	47.3	102.2	102.2	108.7	78.5	117.1	45.1						
	80	112.7	112.7	114.9	105.3	123.2	73.3	107.3	107.3	108.6	102.8	116.4	71.1						
	85	117.6	117.6	117.8	115.9	122.6	98.2	111.9	111.9	112.5	109.2	115.7	95.7						
	90	121.8	121.8	121.8	121.3	121.8	119.0	115.7	115.7	116.0	116.0	116.0	111.3						

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. MBH = Total Gross Capacity, SHC = Sensible Heat Capacity

Table 22. Gross cooling capacities (MBH) 12.5 tons TTA150H condensing unit with 12.5 tons TWE150E standard/ SZVAV/2-speed VFD air handler (IP)

CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		85						95						105					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
4500	75	144.8	126.8	158.0	92.1	170.2	62.6	138.6	124.4	151.4	89.4	162.7	60.0	131.9	120.9	144.3	86.5	155.2	57.5
	80	144.5	144.5	157.8	120.3	170.0	84.7	139.2	139.2	151.2	117.6	162.0	83.6	133.6	133.6	144.1	114.7	155.0	79.4
	85	151.3	151.3	157.8	134.5	169.8	106.4	146.0	146.0	151.1	131.7	161.8	105.3	140.2	140.2	144.0	128.7	154.8	101.1
	90	157.9	157.9	158.0	158.0	169.5	137.2	152.3	152.3	152.5	152.5	161.8	135.6	146.3	146.3	146.5	146.5	154.6	131.8
5000	75	147.0	134.5	160.0	95.5	172.1	63.7	139.0	130.4	153.2	92.7	164.3	61.1	132.7	125.9	145.9	89.9	156.5	58.5
	80	148.5	148.5	159.8	127.4	171.9	87.6	143.0	143.0	153.0	124.6	164.1	84.9	137.2	137.2	145.7	121.7	156.3	82.2
	85	155.3	155.3	159.7	141.6	171.6	111.3	149.7	149.7	153.0	138.7	163.9	108.5	143.7	143.7	145.7	135.7	156.1	105.7
	90	161.8	161.8	161.9	161.9	171.4	146.3	156.0	156.0	156.1	156.1	163.7	143.5	149.7	149.7	149.8	149.8	154.7	140.4
5500	75	147.4	139.6	161.6	98.7	173.6	64.8	141.4	135.2	154.6	96.0	165.7	62.2	133.2	133.2	147.2	93.0	158.2	58.6
	80	151.8	151.8	161.4	134.3	173.4	90.4	146.2	146.2	154.5	131.6	165.5	87.7	140.1	140.1	147.1	128.6	157.3	84.9
	85	158.7	158.7	161.3	148.3	173.2	115.8	152.9	152.9	154.4	145.5	165.3	113.0	146.6	146.6	147.1	142.5	157.2	108.6
	90	165.0	165.0	165.1	165.1	173.1	154.8	159.0	159.0	159.1	159.1	163.7	148.9	152.5	152.5	152.6	152.6	155.8	145.3
6000	75	147.5	147.5	162.8	101.8	174.9	65.9	141.8	141.8	155.8	99.0	166.9	63.3	135.8	135.8	148.4	96.0	158.5	60.5
	80	154.7	154.7	162.7	141.2	174.7	93.1	148.9	148.9	155.7	138.5	166.7	90.4	142.6	142.6	148.8	133.5	158.3	87.6
	85	161.5	161.5	162.6	154.9	174.5	120.1	155.5	155.5	155.6	152.0	166.4	117.2	149.0	149.0	149.1	146.1	158.1	114.3
	90	167.8	167.8	167.9	167.9	173.2	161.6	161.0	161.0	161.5	161.5	165.0	155.6	154.7	154.7	154.8	154.8	157.4	150.1
CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		115						125						135					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
4500	75	123.7	116.2	136.7	83.5	147.0	54.7	117.2	111.4	128.4	80.2	138.0	51.7	107.2	101.4	117.8	78.9	127.8	50.0
	80	127.7	127.7	136.5	111.6	146.9	77.0	121.3	121.3	128.2	108.3	137.8	73.4	111.2	111.2	117.7	104.9	127.7	73.4
	85	134.0	134.0	136.5	125.5	146.7	98.1	127.1	127.1	128.1	122.1	137.6	94.8	117.8	117.8	117.8	122.1	137.6	94.8
	90	139.8	139.8	140.0	140.0	146.5	129.6	132.5	132.5	132.7	132.7	136.1	124.4	124.4	124.4	124.4	124.4	136.1	124.4
5000	75	126.1	121.1	138.1	86.8	148.2	55.7	118.1	118.1	129.6	83.4	139.0	52.7	109.0	109.0	119.0	80.0	129.0	52.7
	80	130.9	130.9	138.0	118.6	148.1	79.4	124.0	124.0	129.5	115.2	138.8	76.3	114.0	114.0	119.0	109.0	138.8	76.3
	85	137.2	137.2	138.0	132.5	147.9	102.7	129.9	129.9	130.3	126.6	138.7	99.3	119.0	119.0	119.0	126.6	138.7	99.3
	90	142.9	142.9	143.0	143.0	146.6	134.6	135.2	135.2	135.3	135.3	137.8	129.3	129.3	129.3	129.3	129.3	137.8	129.3
5500	75	127.0	127.0	139.3	89.9	149.2	56.7	120.4	120.4	130.7	86.4	139.8	53.6	110.0	110.0	120.0	86.4	139.8	53.6
	80	133.7	133.7	139.3	125.5	149.0	82.1	126.5	126.5	129.6	119.6	139.6	79.1	115.0	115.0	119.6	119.6	139.6	79.1
	85	139.8	139.8	139.9	137.1	148.8	107.0	132.3	132.3	132.4	130.0	139.5	103.7	120.0	120.0	120.0	130.0	139.5	103.7
	90	145.4	145.4	145.5	145.5	147.9	140.1	137.4	137.4	137.5	137.5	138.0	138.0	138.0	138.0	138.0	138.0	138.0	138.0
6000	75	129.3	129.3	140.4	92.8	149.9	57.7	122.4	122.4	131.6	89.3	140.5	54.7	112.0	112.0	122.0	89.3	140.5	54.7
	80	136.0	136.0	139.3	128.9	149.7	84.8	128.5	128.5	130.8	124.1	140.3	81.5	117.0	117.0	124.1	124.1	140.3	81.5
	85	142.1	142.1	142.5	141.1	149.5	111.2	134.2	134.2	134.2	130.9	140.1	107.8	124.0	124.0	130.9	130.9	140.1	107.8
	90	147.4	147.4	147.5	147.5	147.9	147.9	139.1	139.1	139.2	139.2	139.2	139.2	139.2	139.2	139.2	139.2	139.2	139.2

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. MBH = Total Gross Capacity, SHC = Sensible Heat Capacity



Performance Data

Table 23. Gross cooling capacities (MBH) 15 tons TTA180H condensing unit with 15 tons TWE180E standard/SZVAV/ 2-speed VFD air handler (IP)

CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		85						95						105					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
5400	75	174.3	148.6	191.4	111.4	207.6	76.1	167.1	145.2	183.8	108.3	199.7	73.3	159.7	141.8	175.6	104.9	191.0	70.3
	80	174.3	174.3	191.2	141.6	207.3	103.0	168.3	168.3	183.6	138.5	199.4	100.1	162.0	162.0	175.4	135.2	190.7	96.9
	85	183.0	183.0	191.0	163.1	207.1	129.2	176.9	176.9	183.4	159.8	199.1	126.4	170.3	170.3	175.2	156.4	190.5	123.3
	90	191.5	191.5	193.9	187.9	206.7	161.2	185.3	185.3	185.5	185.5	198.8	158.2	178.5	178.5	178.8	178.8	190.2	155.1
6000	75	177.3	157.5	194.1	115.8	209.8	77.3	170.1	154.2	186.3	112.6	201.8	74.5	162.5	150.7	178.0	109.3	193.0	71.5
	80	179.5	179.5	193.7	149.8	209.6	106.6	173.3	173.3	186.0	146.6	201.5	103.8	166.6	166.6	177.7	143.5	192.7	100.7
	85	188.4	188.4	193.7	172.2	209.3	135.4	182.0	182.0	185.9	169.0	201.2	132.6	175.2	175.2	177.6	165.5	192.4	129.5
	90	197.0	197.0	202.3	191.2	209.0	171.5	190.5	190.5	190.7	190.7	201.0	168.6	183.4	183.4	183.6	183.6	192.3	165.4
6600	75	180.0	166.4	196.3	120.0	210.6	79.6	172.0	162.8	188.4	116.8	203.5	75.7	164.0	159.2	179.9	113.5	194.6	72.7
	80	184.0	184.0	195.9	157.8	210.9	111.5	177.6	177.6	188.1	154.6	203.2	107.3	170.6	170.6	179.6	151.2	194.2	104.2
	85	193.0	193.0	195.9	181.1	210.1	144.3	186.4	186.4	188.0	177.9	202.9	138.7	179.3	179.3	179.5	174.4	193.9	135.5
	90	201.5	201.5	202.4	202.4	209.7	186.2	194.8	194.8	195.0	195.0	202.8	178.9	187.5	187.5	187.7	187.7	194.0	175.7
7200	75	182.3	175.2	198.1	124.0	213.3	79.7	174.5	171.7	190.1	120.9	204.9	76.8	165.1	165.1	181.5	117.6	195.8	73.8
	80	187.8	187.8	197.8	165.7	211.0	118.9	181.2	181.2	189.9	162.6	204.6	110.7	174.1	174.1	181.4	159.2	195.5	107.7
	85	196.9	196.9	197.7	189.7	210.7	153.0	190.1	190.1	190.5	190.5	204.2	144.3	182.8	182.8	183.6	176.1	195.2	141.1
	90	205.4	205.4	205.5	205.5	212.9	192.2	198.4	198.4	198.6	198.6	204.4	189.2	190.8	190.8	191.0	191.0	195.5	186.0
CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		115						125						135					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
5400	75	151.9	138.2	166.9	101.4	181.7	67.0	143.8	134.4	157.7	97.8	171.4	63.5	135.1	126.7	151.9	93.8	166.6	60.1
	80	155.2	155.2	166.7	131.8	181.3	93.7	148.1	148.1	157.5	128.2	171.1	90.1	138.4	138.4	152.1	128.2	166.6	90.1
	85	163.3	163.3	166.5	152.7	181.1	120.0	155.8	155.8	157.3	148.9	170.8	116.4	146.1	146.1	157.3	148.9	166.6	116.4
	90	171.2	171.2	171.5	171.5	180.9	151.7	163.3	163.3	163.5	163.5	170.7	148.0	154.1	154.1	163.5	163.5	166.6	148.0
6000	75	154.5	147.0	169.1	105.8	183.4	68.2	146.2	143.2	159.6	102.1	173.0	64.7	138.4	138.4	152.1	102.1	166.6	64.7
	80	159.6	159.6	168.8	140.1	183.1	97.4	152.1	152.1	159.3	135.8	172.7	93.8	141.6	141.6	159.3	135.8	166.6	93.8
	85	167.8	167.8	168.7	161.9	182.8	126.3	159.9	159.9	160.3	155.1	172.3	122.5	144.7	144.7	160.3	155.1	166.6	122.5
	90	175.8	175.8	175.9	175.9	182.8	162.0	167.3	167.3	167.5	167.5	172.5	158.3	158.3	158.3	167.5	167.5	166.6	158.3
6600	75	154.7	154.7	170.8	110.0	184.9	69.4	147.3	147.3	161.1	106.3	174.2	65.9	140.7	140.7	161.1	106.3	166.6	65.9
	80	163.3	163.3	170.5	147.6	184.5	100.9	155.4	155.4	160.9	144.7	173.9	97.4	147.6	147.6	160.9	144.7	166.6	97.4
	85	171.6	171.6	172.8	164.3	184.2	132.0	163.3	163.3	164.1	157.3	173.6	128.2	157.3	157.3	164.1	157.3	166.6	128.2
	90	179.5	179.5	179.6	179.6	184.5	172.3	170.6	170.6	170.8	170.8	174.0	168.6	168.6	168.6	170.8	170.8	166.6	168.6
7200	75	157.8	157.8	172.3	114.1	186.1	70.6	150.1	150.1	162.3	110.3	175.3	67.1	143.8	143.8	162.3	110.3	166.6	67.1
	80	166.5	166.5	172.0	155.5	185.7	104.4	158.3	158.3	162.1	151.6	174.9	100.8	151.6	151.6	162.1	151.6	166.6	100.8
	85	174.9	174.9	175.4	169.0	185.4	137.6	166.2	166.2	166.4	161.6	174.6	133.8	161.6	161.6	166.4	161.6	166.6	133.8
	90	182.6	182.6	182.7	182.7	184.9	178.9	173.3	173.3	173.5	173.5	174.2	174.2	173.5	173.5	173.5	173.5	166.6	174.2

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. MBH = Total Gross Capacity, SHC = Sensible Heat Capacity

Table 24. Gross cooling capacities (MBH) 15 tons TTA180H condensing unit with 20 tons TWE240E standard air handler (IP)

CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		85						95						105					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
6400	75	184.3	170.3	202.5	119.9	219.6	81.2	176.7	166.9	194.4	116.6	211.0	78.3	168.5	163.3	185.6	113.0	201.7	75.2
	80	186.0	186.0	202.1	161.9	219.3	110.6	179.6	179.6	194.0	158.8	210.7	107.6	172.7	172.7	185.2	155.2	201.4	104.3
	85	195.3	195.3	202.0	177.3	218.9	140.0	188.7	188.7	193.8	173.9	210.3	137.0	181.6	181.6	185.0	170.3	201.0	133.7
	90	204.4	204.4	204.7	204.7	218.5	186.9	197.7	197.7	197.9	197.9	209.9	183.8	190.8	190.8	190.5	190.5	200.6	180.6
6700	75	184.3	175.0	203.7	121.8	220.5	81.9	177.8	171.6	195.4	118.5	211.9	79.0	168.6	168.6	186.6	114.9	202.5	75.8
	80	188.2	188.2	203.2	166.2	220.2	112.2	181.7	181.7	195.0	163.0	211.6	109.2	174.6	174.6	186.2	159.5	202.2	105.9
	85	197.6	197.6	203.1	181.3	219.8	142.7	190.9	190.9	194.9	177.9	211.2	139.7	183.6	183.6	186.0	174.2	201.8	136.3
	90	206.7	206.7	206.9	206.9	219.5	192.4	199.8	199.8	200.0	200.0	210.8	189.3	192.4	192.4	192.5	192.5	201.4	186.1
7000	75	184.4	176.1	204.7	123.6	221.4	82.5	178.0	178.0	196.4	120.3	212.7	79.6	168.7	168.7	187.5	116.8	203.6	76.0
	80	190.3	190.3	204.3	170.5	221.1	113.8	183.6	183.6	196.0	167.2	212.4	110.7	176.4	176.4	187.1	163.7	202.9	107.5
	85	199.7	199.7	204.2	185.2	220.7	145.3	192.9	192.9	195.8	181.8	212.0	142.2	185.5	185.5	186.9	178.1	202.6	138.8
	90	208.9	208.9	209.1	209.1	220.3	197.9	201.9	201.9	202.0	202.0	211.6	195.6	194.2	194.2	194.4	194.4	201.7	187.9
7300	75	184.8	184.8	205.7	125.5	222.2	83.1	178.8	178.8	197.3	122.2	213.5	80.2	168.9	168.9	188.3	118.6	204.0	77.1
	80	192.2	192.2	205.3	174.7	221.8	115.3	185.4	185.4	196.9	171.5	213.1	112.3	178.2	178.2	187.9	168.0	203.6	109.0
	85	201.7	201.7	205.1	189.0	221.5	147.8	194.8	194.8	196.7	185.6	212.8	144.7	187.3	187.3	187.7	182.0	203.2	141.3
	90	210.8	210.8	211.0	211.0	221.1	203.4	203.7	203.7	203.9	203.9	212.0	212.0	196.0	196.0	196.1	196.1	204.2	193.5
CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)											
		115						125											
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)											
		61		67		73		61		67		73							
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC						
6400	75	156.6	156.6	176.2	109.4	191.7	71.8	149.3	149.3	166.3	105.5	180.6	68.1						
	80	165.3	165.3	175.9	152.1	191.3	100.8	157.6	157.6	165.9	147.7	180.3	97.0						
	85	174.0	174.0	175.7	166.4	190.9	130.0	165.8	165.8	165.9	163.1	179.9	126.1						
	90	182.4	182.4	182.5	182.5	190.5	177.0	173.7	173.7	173.8	173.8	177.8	168.2						
6700	75	158.4	158.4	177.1	111.2	192.4	72.4	150.8	150.8	167.1	107.4	181.3	68.7						
	80	167.2	167.2	176.8	156.4	192.0	102.4	159.3	159.3	166.7	151.9	180.9	98.6						
	85	175.9	175.9	176.6	170.4	191.6	132.6	167.5	167.5	167.7	167.7	180.5	128.7						
	90	184.2	184.2	184.4	184.4	190.6	179.3	175.3	175.3	175.5	175.5	177.8	177.8						
7000	75	160.0	160.0	178.0	113.1	193.1	73.0	152.3	152.3	167.8	109.2	181.9	69.4						
	80	168.9	168.9	177.6	160.8	192.7	104.0	160.8	160.8	167.5	156.1	181.5	100.2						
	85	177.6	177.6	177.9	173.0	192.3	135.2	169.1	169.1	169.4	169.4	181.1	131.2						
	90	186.0	186.0	186.1	186.1	190.9	190.9	176.9	176.9	177.0	177.0	178.9	178.9						
7300	75	161.5	161.5	178.7	114.9	193.7	73.7	153.7	153.7	168.4	111.0	182.4	70.0						
	80	170.5	170.5	178.3	164.3	193.3	105.5	162.2	162.2	168.1	160.3	182.0	101.7						
	85	179.2	179.2	179.3	178.0	192.9	137.7	170.5	170.5	170.6	170.6	181.7	133.7						
	90	187.6	187.6	187.7	187.7	191.7	191.7	178.3	178.3	178.4	178.4	179.2	179.2						

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. MBH = Total Gross Capacity, SHC = Sensible Heat Capacity



Performance Data

Table 25. Gross Cooling Capacities (MBH) One Compressor - 15 Tons TTA180J Condensing Unit with 15 Tons TWE180E Standard/SZVAV/2-Speed VFD Air Handler (IP)

CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		85						95						105					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
5400	75	106.6	106.6	112.4	84.4	121.2	47.5	102.6	102.6	107.8	82.8	116.6	46.0	98.1	98.1	102.7	80.9	111.3	44.3
	80	112.2	112.2	112.3	112.3	121.0	76.8	108.2	108.2	108.3	108.3	116.1	75.2	103.7	103.7	103.8	103.8	110.9	73.6
	85	117.3	117.3	112.2	112.2	121.4	105.1	113.4	113.4	107.7	107.7	116.1	103.3	108.8	108.8	102.6	102.6	111.0	101.5
	90	123.5	123.5	112.1	112.1	121.1	121.1	118.7	118.7	107.6	107.6	115.6	115.6	119.8	119.8	102.6	102.6	110.4	110.4
6000	75	108.5	108.5	113.2	89.6	122.1	48.7	104.4	104.4	108.6	88.0	117.4	47.2	99.9	99.9	103.4	86.1	112.0	45.5
	80	114.1	114.1	114.2	114.2	121.9	81.4	110.0	110.0	110.1	110.1	116.7	79.7	105.5	105.5	105.5	105.5	111.5	78.1
	85	119.6	119.6	112.9	112.9	122.4	112.6	115.1	115.1	108.4	108.4	116.9	110.7	110.5	110.5	103.3	103.3	111.7	108.8
	90	126.0	126.0	112.8	112.8	122.0	122.0	121.0	121.0	108.3	108.3	116.4	116.4	115.5	115.5	103.2	103.2	110.9	110.9
6600	75	110.1	110.1	113.8	94.8	122.9	49.8	106.0	106.0	109.3	91.7	118.1	48.4	101.4	101.4	104.1	89.7	112.7	46.7
	80	115.7	115.7	115.7	115.7	122.6	85.9	111.6	111.6	111.6	111.6	117.2	84.2	106.9	106.9	106.9	106.9	112.0	82.6
	85	121.6	121.6	113.5	113.5	123.4	120.1	116.6	116.6	108.9	108.9	116.8	116.8	111.8	111.8	103.8	103.8	111.9	111.9
	90	128.2	128.2	113.3	113.3	122.7	122.7	122.9	122.9	108.8	108.8	117.0	117.0	117.3	117.3	103.7	103.7	111.3	111.3
7200	75	111.5	111.5	114.4	98.3	123.6	51.0	107.3	107.3	109.8	96.6	118.8	49.5	102.6	102.6	104.7	94.5	113.3	47.8
	80	117.0	117.0	117.0	117.0	123.2	90.5	112.8	112.8	112.9	112.9	117.7	88.7	108.1	108.1	108.1	108.1	112.4	86.7
	85	123.3	123.3	113.9	113.9	123.4	123.4	118.2	118.2	109.4	109.4	118.3	118.3	113.0	113.0	104.2	104.2	113.0	113.0
	90	130.0	130.0	113.8	113.8	123.3	123.3	124.6	124.6	109.2	109.2	117.5	117.5	118.7	118.7	104.1	104.1	111.6	111.6
CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		115						125						135					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
5400	75	93.4	93.4	97.2	79.0	105.4	42.5	88.2	88.2	91.2	75.6	98.9	40.5						
	80	98.8	98.8	98.9	98.9	105.2	71.8	93.4	93.4	93.5	93.5	98.9	69.8						
	85	103.9	103.9	97.1	97.1	105.4	99.6	98.3	98.3	91.2	91.2	99.2	97.4						
	90	108.3	108.3	97.1	97.1	104.8	104.8	102.5	102.5	91.1	91.1	98.6	98.6						
6000	75	95.0	95.0	97.9	82.7	106.1	43.7	89.7	89.7	91.9	80.3	99.4	41.7						
	80	100.5	100.5	100.5	100.5	105.8	76.3	94.9	94.9	95.0	95.0	99.4	74.4						
	85	105.4	105.4	97.7	97.7	105.5	105.5	99.7	99.7	91.7	91.7	99.8	99.8						
	90	109.8	109.8	97.7	97.7	105.3	105.3	103.8	103.8	91.7	91.7	99.0	99.0						
6600	75	96.4	96.4	98.5	87.5	106.6	44.9	90.9	90.9	92.5	85.1	99.8	42.8						
	80	101.8	101.8	101.9	101.9	106.2	80.8	96.2	96.2	96.2	96.2	99.8	78.2						
	85	106.7	106.7	98.2	98.2	106.8	106.8	100.9	100.9	92.1	92.1	100.9	100.9						
	90	111.2	111.2	98.1	98.1	105.6	105.6	104.8	104.8	92.1	92.1	99.3	99.3						
7200	75	97.5	97.5	99.1	92.3	107.1	46.0	92.0	92.0	93.0	89.9	100.2	43.9						
	80	102.9	102.9	103.0	103.0	106.6	84.9	97.2	97.2	97.2	97.2	100.1	82.4						
	85	107.7	107.7	98.6	98.6	107.8	107.8	101.8	101.8	92.5	92.5	101.9	101.9						
	90	112.6	112.6	98.5	98.5	105.9	105.9	105.7	105.7	92.4	92.4	99.5	99.5						

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. MBH = Total Gross Capacity, SHC = Sensible Heat Capacity

Table 26. Gross cooling capacities (MBH) both compressors - 15 tons TTA180J condensing unit with 15 tons TWE180E standard/SZVAV/2-speed VFD air handler (IP)

CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		85						95						105					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
5400	75	176.3	151.6	192.0	114.8	207.2	76.1	168.5	148.0	183.7	111.5	198.3	73.0	160.4	144.2	174.8	108.0	188.8	69.8
	80	177.4	177.4	192.1	144.0	207.1	105.6	170.8	170.8	183.7	140.7	198.3	102.5	163.7	163.7	174.8	137.0	188.8	99.2
	85	186.0	186.0	192.2	167.5	207.1	134.9	179.2	179.2	183.8	164.0	198.3	131.8	171.9	171.9	175.0	160.3	188.8	128.6
	90	194.3	194.3	192.3	192.3	207.1	159.3	187.3	187.3	184.0	184.0	198.3	156.0	179.7	179.7	175.1	175.1	188.8	152.5
6000	75	179.1	160.7	194.4	120.1	209.2	77.3	171.2	157.1	185.9	116.7	200.2	74.2	162.9	153.3	176.8	113.2	190.5	70.9
	80	182.3	182.3	194.4	152.3	209.2	110.0	175.4	175.4	185.9	148.8	200.1	107.0	168.0	168.0	176.9	145.2	190.5	103.7
	85	191.0	191.0	194.5	177.2	209.1	142.6	183.9	183.9	186.1	173.7	200.1	139.5	176.3	176.3	177.0	170.0	190.5	136.3
	90	199.3	199.3	194.6	194.6	209.1	168.2	192.0	192.0	186.1	186.1	200.1	164.9	184.1	184.1	177.1	177.1	190.5	161.4
6600	75	181.6	169.7	196.3	125.3	210.9	78.5	173.6	166.1	187.7	121.9	201.7	75.4	165.2	162.2	178.4	118.4	191.9	72.1
	80	186.5	186.5	196.4	160.4	210.8	114.5	179.3	179.3	187.8	157.0	201.7	111.4	171.7	171.7	178.7	153.3	191.9	108.1
	85	195.2	195.2	196.5	186.6	210.7	150.3	187.9	187.9	187.8	183.1	201.6	147.2	180.0	180.0	178.6	178.6	191.8	144.0
	90	203.5	203.5	196.5	196.5	210.7	177.0	196.0	196.0	187.9	187.9	201.6	173.7	187.8	187.8	178.7	178.7	191.8	170.2
7200	75	183.7	178.7	197.9	130.4	212.3	79.6	173.8	173.8	189.2	127.1	203.0	76.6	166.1	166.1	179.8	123.6	193.1	73.2
	80	190.1	190.1	198.1	168.5	212.2	118.9	182.7	182.7	189.5	165.1	202.9	115.9	174.8	174.8	180.3	161.4	193.0	112.6
	85	198.8	198.8	198.1	195.8	212.1	157.7	191.2	191.2	189.3	189.3	202.8	154.9	183.1	183.1	180.0	180.0	192.9	151.7
	90	207.1	207.1	198.1	198.1	212.0	185.5	199.2	199.2	189.3	189.3	202.8	182.2	190.8	190.8	180.0	180.0	192.9	178.7
CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		115						125						135					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
5400	75	152.0	140.4	165.4	104.3	178.5	66.2	143.2	136.3	155.2	100.4	167.2	62.4	143.2	136.3	155.2	100.4	167.2	62.4
	80	156.4	156.4	165.5	133.2	178.5	95.7	148.3	148.3	155.4	129.1	167.2	91.9	148.3	148.3	155.4	129.1	167.2	91.9
	85	164.1	164.1	165.6	156.5	178.5	125.0	155.6	155.6	155.5	152.3	167.2	121.2	155.6	155.6	155.5	152.3	167.2	121.2
	90	171.6	171.6	165.7	165.7	178.6	148.8	162.5	162.5	155.5	155.5	167.2	144.7	162.5	162.5	155.5	155.5	167.2	144.7
6000	75	154.4	149.4	167.2	109.5	180.1	67.4	144.2	144.2	156.8	105.6	168.5	63.6	144.2	144.2	156.8	105.6	168.5	63.6
	80	160.3	160.3	167.4	141.3	180.0	100.2	151.8	151.8	157.1	137.2	168.5	96.3	151.8	151.8	157.1	137.2	168.5	96.3
	85	168.1	168.1	167.4	166.1	180.0	132.8	159.1	159.1	157.0	157.0	168.5	128.5	159.1	159.1	157.0	157.0	168.5	128.5
	90	175.6	175.6	167.5	167.5	180.0	157.7	165.9	165.9	157.0	157.0	168.5	153.5	165.9	165.9	157.0	157.0	168.5	153.5
6600	75	155.4	155.4	168.7	114.7	181.3	68.6	147.0	147.0	158.0	110.8	169.6	64.8	147.0	147.0	158.0	110.8	169.6	64.8
	80	163.6	163.6	169.1	149.4	181.3	104.6	154.7	154.7	158.6	145.2	169.5	100.8	154.7	154.7	158.6	145.2	169.5	100.8
	85	171.5	171.5	168.9	168.9	181.2	140.5	162.0	162.0	158.2	158.2	169.5	135.8	162.0	162.0	158.2	158.2	169.5	135.8
	90	178.8	178.8	168.9	168.9	181.2	166.4	168.7	168.7	158.2	158.2	169.4	162.2	168.7	168.7	158.2	158.2	169.4	162.2
7200	75	158.2	158.2	169.9	119.9	182.4	69.7	149.5	149.5	159.1	115.9	170.5	65.8	149.5	149.5	159.1	115.9	170.5	65.8
	80	166.4	166.4	170.5	157.5	182.3	109.1	157.2	157.2	159.9	153.3	170.4	105.3	157.2	157.2	159.9	153.3	170.4	105.3
	85	174.3	174.3	170.0	170.0	182.3	147.2	164.4	164.4	159.2	159.2	170.5	143.1	164.4	164.4	159.2	159.2	170.5	143.1
	90	181.5	181.5	170.0	170.0	182.1	174.9	171.0	171.0	159.2	159.2	170.2	170.2	171.0	171.0	159.2	159.2	170.2	170.2

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. MBH = Total Gross Capacity, SHC = Sensible Heat Capacity



Performance Data

Table 27. Gross cooling capacities (MBH) 20 tons TTA240H condensing unit with 20 tons TWE240E standard/SZVAV/ 2-speed VFD air handler (IP)

CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		85						95						105					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
6400	75	237.7	195.3	261.3	144.9	280.8	105.6	227.3	190.4	249.5	139.8	267.8	101.7	215.8	185.3	236.2	134.1	252.0	92.6
	80	234.7	225.0	260.9	186.0	280.6	136.0	221.6	221.6	249.2	181.2	266.1	132.0	212.3	212.3	235.9	175.8	251.8	122.7
	85	241.2	241.2	260.8	203.3	280.4	165.5	232.6	232.6	249.1	198.0	265.9	161.5	222.7	222.7	235.8	192.2	251.6	152.2
	90	252.3	252.3	257.9	247.7	280.1	212.2	243.1	243.1	243.4	243.4	265.4	208.7	232.5	232.5	232.8	232.8	251.2	199.1
7200	75	242.7	208.2	265.6	149.9	285.7	105.9	231.9	203.2	253.3	144.7	272.3	102.0	219.9	197.7	239.5	138.9	254.6	94.1
	80	238.1	238.1	265.3	197.8	285.9	138.3	229.3	229.3	253.0	192.8	270.9	132.7	219.3	219.3	239.0	187.3	254.4	126.7
	85	249.7	249.7	265.2	213.8	285.7	170.7	240.4	240.4	252.9	208.5	270.7	165.1	229.7	229.7	239.1	202.5	254.2	159.1
	90	260.7	260.7	260.9	260.9	285.0	224.8	250.7	250.7	250.9	250.9	270.1	219.4	239.1	239.1	239.2	239.2	253.7	213.5
8000	75	246.9	220.8	269.0	154.7	289.4	107.9	235.7	215.8	256.3	149.4	273.8	102.5	220.1	210.0	241.9	143.5	257.8	95.4
	80	245.1	245.1	268.5	209.3	289.2	143.2	235.8	235.8	256.0	204.3	273.9	136.8	225.2	225.2	241.6	198.8	257.9	130.7
	85	256.7	256.7	268.7	223.9	289.0	178.5	246.8	246.8	255.9	218.4	273.7	172.1	235.3	235.3	241.5	212.4	257.7	168.4
	90	267.4	267.4	267.6	267.6	288.8	239.7	256.5	256.5	256.7	256.7	273.2	234.2	243.8	243.8	244.0	244.0	258.0	230.2
8800	75	250.8	232.4	271.7	159.1	292.9	108.7	235.8	222.4	258.6	153.8	276.7	103.3	220.2	220.2	243.8	147.9	259.0	97.4
	80	251.1	251.1	271.3	220.6	292.6	146.4	241.2	241.2	258.2	215.4	276.4	140.7	230.0	230.0	243.4	209.6	258.7	134.5
	85	262.5	262.5	271.3	233.4	292.4	184.5	251.9	251.9	258.2	227.9	276.1	178.8	239.7	239.7	243.4	221.8	258.4	172.5
	90	272.8	272.8	273.0	273.0	291.8	254.5	261.3	261.3	261.4	261.4	276.0	247.9	248.0	248.0	248.1	248.1	258.9	239.7
9600	75	251.1	235.7	274.0	163.4	295.5	110.5	239.3	230.4	260.4	158.0	278.8	105.0	223.3	223.3	245.3	152.1	260.6	99.0
	80	256.1	256.1	273.5	231.7	295.2	150.3	245.8	245.8	260.0	226.5	278.6	144.4	234.1	234.1	244.9	220.6	260.3	138.1
	85	267.3	267.3	273.6	242.6	294.8	191.0	256.1	256.1	260.0	237.0	278.2	185.0	243.2	243.2	244.9	230.8	260.0	178.5
	90	277.8	277.8	278.0	278.0	294.5	269.3	265.5	265.5	267.5	267.5	278.8	260.3	251.4	251.4	251.6	251.5	262.6	245.0
CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		115						125						135					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
6400	75	203.5	179.5	221.9	128.1	235.0	86.6	191.1	173.7	207.2	122.0	217.3	80.5	177.8	159.8	193.9	118.8	210.5	78.5
	80	202.2	202.2	221.6	170.1	234.8	116.4	191.9	191.9	206.9	164.3	217.1	110.1	177.1	177.1	193.9	149.7	210.5	110.1
	85	211.9	211.9	221.5	186.0	234.5	145.9	200.6	200.6	206.8	179.8	216.8	139.6	177.8	177.8	193.9	179.8	210.5	139.6
	90	220.8	220.8	220.9	220.9	234.2	192.9	208.0	208.0	208.2	208.2	216.5	186.6	177.8	177.8	193.9	208.2	210.5	186.6
7200	75	207.0	191.9	224.5	132.8	236.9	88.1	191.8	182.5	209.3	126.7	218.6	81.9	177.8	177.8	193.9	118.8	210.5	81.9
	80	208.5	208.5	224.1	181.4	236.7	120.3	197.3	197.3	208.9	175.3	218.3	113.9	177.8	177.8	193.9	149.7	210.5	113.9
	85	218.0	218.0	224.1	196.2	236.5	152.8	205.5	205.5	208.8	189.9	218.1	146.6	177.8	177.8	193.9	179.8	210.5	146.6
	90	226.0	226.0	226.1	226.1	236.1	207.3	211.7	211.7	211.8	211.8	216.8	205.6	177.8	177.8	193.9	208.2	210.5	205.6
8000	75	207.5	199.0	226.5	137.3	238.6	89.6	192.4	192.4	210.7	131.1	219.7	82.3	177.8	177.8	193.9	118.8	210.5	82.3
	80	213.6	213.6	226.2	192.9	238.6	123.4	201.6	201.6	210.4	186.3	219.4	117.7	177.8	177.8	193.9	149.7	210.5	117.7
	85	222.6	222.6	226.1	206.0	238.1	159.6	209.1	209.1	210.2	199.5	219.7	149.7	177.8	177.8	193.9	179.8	210.5	149.7
	90	229.8	229.8	229.9	229.9	237.9	220.8	214.7	214.7	214.8	214.8	217.5	207.2	177.8	177.8	193.9	208.2	210.5	207.2
8800	75	207.8	207.8	228.0	141.6	240.0	91.2	196.2	196.2	211.8	135.4	220.5	84.8	177.8	177.8	193.9	118.8	210.5	84.8
	80	217.8	217.8	227.6	203.8	239.8	127.9	205.0	205.0	211.8	195.1	220.2	121.4	177.8	177.8	193.9	149.7	210.5	121.4
	85	226.2	226.2	227.5	215.3	239.5	165.7	211.5	211.5	211.7	206.2	220.0	158.8	177.8	177.8	193.9	179.8	210.5	158.8
	90	233.1	233.1	233.2	233.2	238.3	225.3	216.8	216.8	216.8	216.8	217.9	217.9	177.8	177.8	193.9	208.2	210.5	217.9
9600	75	211.5	211.5	229.2	145.8	241.2	92.7	199.3	199.3	212.7	139.6	221.1	86.3	177.8	177.8	193.9	118.8	210.5	86.3
	80	221.2	221.2	228.8	214.4	240.9	131.6	207.7	207.7	213.5	198.6	220.9	124.9	177.8	177.8	193.9	149.7	210.5	124.9
	85	228.8	228.8	229.0	222.5	240.6	171.6	213.7	213.7	213.8	207.9	220.6	164.6	177.8	177.8	193.9	179.8	210.5	164.6
	90	235.7	235.7	235.8	235.8	240.7	240.7	218.2	218.2	219.6	219.6	219.8	219.8	177.8	177.8	193.9	208.2	210.5	219.8

Notes:

- All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
- MBH = Total Gross Capacity, SHC = Sensible Heat Capacity

Table 28. Gross cooling capacities (MBH) one compressor - 20 tons TTA240J condensing unit with 20 tons TWE240E standard/SZVAV/2-speed VFD air handler (IP)

CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		85						95						105					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
6400	75	150.0	150.0	163.6	112.3	174.9	67.0	144.8	144.8	157.1	109.8	167.4	64.6	138.7	138.7	149.5	107.0	158.4	61.8
	80	158.3	158.3	163.8	144.4	176.8	102.7	152.9	152.9	157.4	141.7	168.7	100.1	146.4	146.4	150.0	138.5	159.6	97.1
	85	165.5	165.5	164.0	164.0	177.5	135.7	157.0	157.0	157.2	157.2	169.4	132.6	152.6	152.6	149.7	149.7	160.2	129.2
	90	173.9	173.9	163.6	163.6	177.9	159.4	167.2	167.2	157.0	157.0	169.6	156.3	159.4	159.4	149.6	149.6	160.4	152.9
7200	75	153.8	153.8	165.2	119.3	176.3	68.7	148.3	148.3	158.6	116.9	168.4	66.2	141.9	141.9	150.9	114.0	159.0	63.2
	80	161.8	161.8	164.4	159.5	178.5	108.9	156.1	156.1	158.9	151.9	170.2	106.2	149.4	149.4	151.4	148.6	160.9	103.3
	85	169.6	169.6	165.2	165.2	179.2	145.2	163.1	163.1	158.3	158.3	170.8	142.0	155.6	155.6	150.8	150.8	161.5	138.4
	90	178.1	178.1	165.4	165.4	179.5	170.1	170.9	170.9	158.8	158.8	171.0	166.9	162.5	162.5	150.5	150.5	161.5	161.5
8000	75	156.8	156.8	166.5	122.9	177.3	70.1	151.1	151.1	159.8	120.0	169.1	67.5	144.5	144.5	152.0	121.0	159.4	64.5
	80	164.4	164.4	164.5	164.5	179.9	115.1	158.6	158.6	159.0	159.0	171.4	112.4	151.6	151.6	151.7	151.7	162.0	107.9
	85	173.1	173.1	166.7	166.7	180.6	154.6	166.1	166.1	159.5	159.5	172.0	151.3	158.2	158.2	151.5	151.5	162.5	147.6
	90	181.5	181.5	166.8	166.8	180.8	180.4	173.8	173.8	159.4	159.4	172.1	172.1	164.8	164.8	151.1	151.1	162.4	162.4
8800	75	159.3	159.2	167.5	128.7	178.1	71.4	153.5	153.5	160.8	130.9	169.6	68.8	146.6	146.6	152.8	128.0	159.7	65.7
	80	167.0	167.0	167.1	167.1	181.1	121.3	160.9	160.9	160.4	160.4	172.4	116.8	153.3	153.3	153.3	153.3	162.8	113.7
	85	175.9	175.9	167.9	167.9	181.8	164.0	168.7	168.7	160.4	160.4	173.1	160.6	160.3	160.3	152.6	152.6	163.4	156.7
	90	184.3	184.3	168.0	168.0	181.9	181.9	176.1	176.1	160.4	160.4	173.0	173.0	166.6	166.6	152.0	152.0	163.1	163.1
9600	75	161.3	161.3	168.3	140.3	178.7	72.7	155.4	155.4	161.5	137.9	170.0	70.0	148.4	148.4	153.4	128.8	162.5	71.9
	80	169.3	169.3	169.4	169.4	182.1	125.5	162.5	162.5	162.5	162.5	173.3	122.6	154.7	154.6	154.8	154.8	163.5	119.3
	85	178.4	178.4	168.9	168.9	182.8	173.3	170.8	170.8	161.3	161.3	174.2	168.8	162.1	162.1	152.7	152.7	163.8	158.0
	90	186.5	186.5	169.0	169.0	182.7	182.7	178.0	178.0	161.3	161.3	173.7	173.7	168.0	168.0	152.7	152.7	163.6	163.6
CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		115						125						135					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
6400	75	131.7	131.7	140.9	103.8	148.0	58.5	124.0	124.0	131.5	97.0	136.8	55.0						
	80	139.0	139.0	141.5	134.8	149.7	93.9	130.8	130.8	130.8	130.8	139.2	87.7						
	85	144.5	144.5	141.1	141.1	150.1	125.3	135.4	135.4	131.7	131.7	139.2	121.0						
	90	150.5	150.5	141.0	141.0	150.1	149.0	140.3	140.3	131.5	131.5	139.0	139.0						
7200	75	134.6	134.6	142.1	110.8	148.4	59.9	126.5	126.5	132.5	107.4	137.3	55.6						
	80	141.6	141.6	141.7	141.7	150.8	100.0	132.9	132.9	133.0	133.0	140.0	96.6						
	85	147.0	147.0	142.0	142.0	151.1	134.4	137.5	137.5	132.4	132.4	140.0	129.9						
	90	152.8	152.8	141.8	141.8	151.0	151.0	141.8	141.8	132.2	132.2	139.6	139.6						
8000	75	136.9	136.9	143.1	117.8	148.6	61.1	128.5	128.5	133.4	107.9	137.4	56.8						
	80	143.5	143.5	143.5	143.5	151.6	104.5	134.5	134.5	134.5	134.5	140.6	100.9						
	85	149.2	149.2	142.6	142.6	152.0	143.4	139.1	139.1	133.0	133.0	140.3	133.0						
	90	154.5	154.5	142.3	142.3	151.6	151.6	142.7	142.7	132.7	132.7	140.0	140.0						
8800	75	138.8	138.8	143.9	118.0	148.8	62.3	130.2	130.2	134.1	113.3	140.6	58.2						
	80	144.9	144.9	145.0	145.0	152.3	110.2	135.7	135.7	135.7	135.7	141.2	106.5						
	85	150.9	150.9	143.2	143.2	152.2	145.2	140.4	140.4	133.3	133.3	140.4	140.4						
	90	155.7	155.7	142.4	142.4	152.1	152.1	143.2	143.2	133.0	133.0	140.3	140.3						
9600	75	140.3	140.3	144.5	123.4	149.1	62.5	131.5	131.5	134.6	118.5	142.7	58.9						
	80	145.7	145.3	146.0	146.0	152.9	115.8	136.5	136.5	136.5	136.5	141.7	112.1						
	85	152.3	152.3	143.2	143.2	152.3	152.3	141.4	141.4	133.6	133.6	141.4	141.4						
	90	156.5	156.5	143.3	143.3	152.5	152.5	143.3	143.3	133.2	133.2	140.6	140.6						

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. MBH = Total Gross Capacity, SHC = Sensible Heat Capacity



Performance Data

Table 29. Gross cooling capacities (MBH) both compressors - 20 tons TTA240J condensing unit with 20 tons TWE240E standard/SZVAV/2-speed VFD air handler (IP)

CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		85						95						105					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
6400	75	235.9	193.3	260.0	149.6	280.2	102.5	226.1	188.8	248.9	145.1	266.9	97.7	215.2	183.7	236.3	139.9	251.6	92.2
	80	236.0	228.0	259.9	184.6	280.1	137.8	226.2	223.4	248.9	180.0	266.8	133.0	211.5	211.5	236.3	174.8	251.6	127.5
	85	239.7	239.7	259.8	201.7	280.0	172.9	231.6	231.6	248.7	196.7	266.8	168.1	222.3	222.3	236.2	191.2	251.5	162.7
	90	251.1	251.1	259.9	229.8	280.0	191.3	242.5	242.5	248.9	224.9	266.7	186.2	232.7	232.7	236.3	219.3	251.5	180.6
7200	75	240.9	206.0	264.6	156.9	283.6	104.0	230.8	201.2	253.0	152.3	269.5	99.0	219.3	196.0	239.8	147.0	253.4	93.4
	80	236.3	236.3	264.5	196.2	283.6	143.7	228.1	228.1	253.0	191.6	269.4	138.7	218.7	218.7	239.6	186.3	253.4	133.1
	85	248.3	248.3	264.4	212.2	283.5	183.3	239.6	239.6	252.9	207.2	269.4	178.3	229.6	229.6	239.7	201.4	253.3	172.7
	90	259.8	259.8	264.5	243.2	283.3	201.1	250.5	250.5	253.0	238.1	269.3	195.6	239.6	239.6	239.8	232.4	253.3	189.5
8000	75	245.2	218.5	268.2	164.1	286.7	105.6	234.7	213.7	256.2	159.3	271.9	100.4	222.8	209.1	242.5	154.0	255.6	94.4
	80	243.4	243.4	268.0	207.7	287.0	148.8	234.7	234.7	256.0	202.8	271.9	144.7	224.7	224.7	242.4	197.3	255.5	139.1
	85	255.5	255.5	268.1	222.2	286.5	193.7	246.2	246.2	256.1	217.0	271.8	188.6	235.5	235.5	242.4	211.2	255.5	183.1
	90	266.8	266.8	268.1	255.8	284.3	214.7	256.8	256.8	256.1	250.6	271.6	204.6	244.9	244.9	242.5	242.5	255.4	198.5
8800	75	248.8	230.9	271.1	171.1	289.6	106.9	237.9	225.9	258.7	166.4	274.3	101.4	225.7	220.4	244.6	161.0	257.4	95.4
	80	249.5	249.5	270.9	218.8	289.5	155.9	240.3	240.3	258.6	213.9	274.2	150.8	229.8	229.8	244.6	209.0	257.4	145.1
	85	261.6	261.6	271.0	231.6	289.4	204.3	251.7	251.7	258.6	226.4	274.2	199.1	240.3	240.3	244.5	220.5	257.3	193.5
	90	272.4	272.4	271.0	267.8	289.3	219.0	261.6	261.6	258.6	258.6	274.1	213.4	248.7	248.7	244.5	244.5	257.2	207.2
9600	75	251.8	244.3	273.4	178.1	292.1	108.0	241.4	237.3	260.7	173.3	276.3	102.4	230.7	224.1	246.2	167.9	258.9	96.3
	80	254.8	254.8	273.3	229.8	292.0	162.1	245.1	245.1	260.6	224.8	276.2	156.9	234.1	234.1	246.2	220.2	258.8	151.1
	85	266.6	266.6	273.3	240.7	291.9	214.8	256.2	256.2	260.6	235.4	276.2	209.6	244.1	244.1	246.1	229.4	258.8	203.8
	90	276.9	276.9	273.3	273.3	291.8	227.6	265.3	265.3	260.6	260.6	276.1	221.8	251.3	251.3	246.1	246.1	258.7	215.5
CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		115						125						135					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
6400	75	203.5	178.1	222.8	134.4	235.0	86.3	192.0	172.8	208.9	128.9	217.5	80.3	192.0	172.8	208.9	128.9	217.5	80.3
	80	202.1	202.1	222.7	169.4	234.9	121.7	192.6	192.6	208.8	163.9	217.4	115.6	192.6	192.6	208.8	163.9	217.4	115.6
	85	212.3	212.3	222.7	185.2	234.8	156.8	201.8	201.8	208.8	179.3	217.3	150.8	201.8	201.8	208.8	179.3	217.3	150.8
	90	221.7	221.7	222.8	213.3	234.8	174.2	209.9	209.9	210.2	210.2	217.3	167.6	209.9	209.9	210.2	210.2	217.3	167.6
7200	75	207.3	191.1	225.6	141.4	236.5	86.5	193.0	181.5	211.1	135.8	218.5	80.9	193.0	181.5	211.1	135.8	218.5	80.9
	80	208.6	208.6	225.5	180.5	236.5	126.4	198.2	198.2	211.0	174.7	218.4	121.3	198.2	198.2	211.0	174.7	218.4	121.3
	85	218.6	218.6	225.6	195.4	235.9	167.7	207.1	207.1	211.0	189.3	218.3	160.8	207.1	207.1	211.0	189.3	218.3	160.8
	90	227.5	227.5	225.6	225.6	236.3	182.4	214.1	214.1	211.0	211.0	218.3	176.5	214.1	214.1	211.0	211.0	218.3	176.5
8000	75	209.0	204.5	227.8	148.4	237.9	88.2	193.0	193.0	212.7	142.6	219.4	81.7	193.0	193.0	212.7	142.6	219.4	81.7
	80	213.9	213.9	227.7	191.5	237.9	133.2	202.7	202.7	212.7	185.5	219.4	127.1	202.7	202.7	212.7	185.5	219.4	127.1
	85	223.7	223.7	227.7	205.0	237.8	177.1	211.1	211.1	212.6	198.8	219.3	171.0	211.1	211.1	212.6	198.8	219.3	171.0
	90	231.5	231.5	227.7	227.7	237.7	192.0	216.4	216.4	212.6	212.6	219.2	185.3	216.4	216.4	212.6	212.6	219.2	185.3
8800	75	209.1	209.1	229.5	155.2	239.2	89.0	196.9	196.9	213.9	149.4	220.1	82.4	196.9	196.9	213.9	149.4	220.1	82.4
	80	218.3	218.3	229.4	202.3	239.1	139.1	206.4	206.4	213.9	196.2	220.0	132.9	206.4	206.4	213.9	196.2	220.0	132.9
	85	227.6	227.6	229.4	214.2	239.0	187.4	213.9	213.9	213.9	207.0	219.9	180.3	213.9	213.9	213.9	207.0	219.9	180.3
	90	233.9	233.9	229.3	229.3	239.0	200.5	217.1	217.1	213.7	213.7	219.8	193.7	217.1	217.1	213.7	213.7	219.8	193.7
9600	75	211.5	211.5	230.7	162.1	240.1	89.8	200.2	200.2	214.9	156.2	220.5	83.2	200.2	200.2	214.9	156.2	220.5	83.2
	80	222.0	222.0	230.7	213.1	240.1	145.0	209.3	209.3	214.8	206.9	220.4	138.7	209.3	209.3	214.8	206.9	220.4	138.7
	85	230.5	230.5	230.6	223.0	240.0	196.8	215.7	215.7	214.6	214.6	220.3	190.0	215.7	215.7	214.6	214.6	220.3	190.0
	90	235.4	235.4	230.5	230.5	239.9	208.8	219.0	219.0	214.5	214.5	220.1	201.8	219.0	219.0	214.5	214.5	220.1	201.8

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. MBH = Total Gross Capacity, SHC = Sensible Heat Capacity

Table 30. Gross cooling capacities (MBH) one compressor - 25 tons TTA300J condensing unit with 25 tons TWE300E standard/SZVAV/2-speed VFD air handler (IP)

CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		85						95						105					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
8000	75	175.2	175.2	190.9	134.3	204.3	78.5	169.3	169.3	183.4	129.4	195.5	75.7	162.3	162.3	174.6	128.2	185.0	72.3
	80	184.9	184.9	190.9	173.9	205.3	122.4	178.6	178.6	183.5	170.8	196.5	119.5	171.2	171.2	174.9	167.1	186.4	116.2
	85	193.4	193.4	193.6	190.3	205.3	162.7	186.7	186.7	186.8	186.8	196.3	159.3	178.7	178.7	178.8	178.8	186.0	155.4
	90	202.1	202.1	202.4	202.4	205.0	189.1	194.4	194.4	194.7	194.7	195.8	185.6	185.4	185.4	185.4	185.4	185.5	183.0
9000	75	179.5	179.5	192.8	140.1	205.6	80.2	173.3	173.3	185.2	136.9	196.4	77.3	166.0	166.0	176.3	133.0	185.6	73.9
	80	189.1	189.1	192.9	186.8	207.1	130.1	182.5	182.5	185.5	181.6	198.0	127.1	174.8	174.8	177.4	173.9	187.7	123.8
	85	197.5	197.5	200.7	195.1	207.1	174.4	190.3	190.3	190.3	190.3	197.8	170.9	181.8	181.8	182.4	182.4	187.2	166.9
	90	206.4	206.4	206.6	206.6	206.6	201.6	198.1	198.1	198.3	198.3	198.4	198.4	188.3	188.3	188.4	188.4	188.5	188.5
10000	75	183.0	183.0	194.4	147.6	206.5	81.8	176.6	176.6	186.7	144.3	197.0	78.9	169.0	169.0	177.6	140.3	186.0	75.4
	80	192.4	192.4	194.1	194.1	208.6	137.7	185.6	185.6	185.7	185.7	199.3	134.7	177.5	177.5	177.6	177.6	188.7	129.3
	85	201.2	201.2	201.5	201.5	208.5	186.1	193.4	193.4	193.6	193.6	199.0	182.4	184.4	184.4	184.9	184.9	188.2	178.3
	90	209.8	209.8	210.1	210.1	210.1	210.1	200.9	200.9	201.0	201.0	201.1	201.1	190.2	190.2	190.3	190.3	190.3	190.3
11000	75	186.0	186.0	195.7	155.0	207.1	83.3	179.3	179.3	187.8	151.5	197.4	80.3	171.5	171.5	178.7	147.5	186.2	76.8
	80	195.0	195.0	195.1	195.1	209.8	145.3	188.0	188.0	188.1	188.1	200.3	139.9	179.6	179.6	179.7	179.7	189.6	136.3
	85	204.2	204.2	204.9	204.9	209.6	197.7	196.1	196.1	196.1	196.1	200.0	193.9	186.5	186.5	187.2	187.2	189.7	183.4
	90	212.4	212.4	212.6	212.6	212.7	212.7	202.8	202.8	202.9	202.9	203.0	203.0	191.2	191.2	191.3	191.3	191.3	191.3
12000	75	188.4	188.4	196.7	162.3	207.6	84.8	181.6	181.6	188.8	158.8	197.7	81.7	173.6	173.6	179.5	154.6	186.4	78.2
	80	197.3	197.3	197.4	197.4	210.9	150.2	189.8	189.8	190.6	190.6	201.2	146.9	181.3	181.3	181.3	181.3	190.3	143.3
	85	206.7	206.7	207.0	207.0	210.6	203.0	198.2	198.2	198.3	198.3	200.1	200.1	188.2	188.2	188.3	188.3	190.0	190.0
	90	214.4	214.4	214.5	214.5	214.5	214.5	204.1	204.1	204.2	204.2	204.2	204.2	191.6	191.6	192.9	192.9	194.1	194.1
CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		115						125						135					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
8000	75	154.4	154.4	164.8	124.6	173.2	68.6	145.9	145.9	154.2	120.7	160.8	64.7	134.4	134.4	144.8	114.6	153.2	60.6
	80	162.8	162.8	162.9	162.9	175.2	112.6	153.4	153.4	153.5	153.5	163.2	108.8	142.8	142.8	142.9	142.9	152.8	104.8
	85	169.4	169.4	169.8	169.8	174.6	151.0	158.8	158.8	159.2	159.2	162.1	146.2	149.6	149.6	149.7	149.7	152.1	142.2
	90	174.8	174.8	174.9	174.9	174.9	174.9	162.3	162.3	162.3	162.3	162.3	162.3	162.3	162.3	162.3	162.3	162.3	162.3
9000	75	157.7	157.7	166.2	133.3	173.6	70.1	148.7	148.7	155.5	123.8	161.0	66.2	137.6	137.6	147.0	117.4	156.0	62.8
	80	165.9	165.9	165.9	165.9	176.3	120.1	156.0	156.0	156.1	156.1	164.0	114.4	145.6	145.6	145.7	145.7	154.0	110.4
	85	172.0	172.0	172.3	172.3	175.5	162.3	160.9	160.9	161.1	161.1	162.6	157.2	150.0	150.0	150.1	150.1	152.5	153.2
	90	176.5	176.5	176.6	176.6	176.6	176.6	162.5	162.5	162.7	162.7	162.8	162.8	162.8	162.8	162.8	162.8	162.8	162.8
10000	75	160.4	160.4	167.4	135.7	173.8	71.6	151.0	151.0	156.5	130.7	161.2	67.7	140.8	140.8	150.2	120.6	159.0	64.8
	80	168.2	168.2	168.3	168.3	177.1	125.5	157.9	157.9	157.9	157.9	164.6	121.3	148.0	148.0	148.1	148.1	156.0	117.3
	85	174.0	174.0	174.2	174.2	175.5	175.5	162.3	162.3	162.7	162.7	162.9	162.9	162.9	162.9	162.9	162.9	162.9	162.9
	90	177.3	177.3	177.5	177.5	177.6	177.6	162.8	162.8	162.8	162.8	162.8	162.8	162.8	162.8	162.8	162.8	162.8	162.8
11000	75	162.6	162.6	168.4	142.8	173.9	73.0	152.9	152.9	157.3	137.5	161.3	69.1	144.0	144.0	153.4	123.8	160.2	66.1
	80	170.0	170.0	170.0	170.0	177.8	132.4	159.3	159.3	159.3	159.3	165.1	128.2	150.0	150.0	150.1	150.1	158.0	124.2
	85	175.6	175.6	175.6	175.6	175.7	175.7	163.2	163.2	163.2	163.2	163.3	163.3	163.3	163.3	163.3	163.3	163.3	163.3
	90	177.4	177.4	177.6	177.6	177.7	177.7	162.9	162.9	163.2	163.2	163.2	163.2	163.2	163.2	163.2	163.2	163.2	163.2
12000	75	164.4	164.4	169.1	149.7	174.1	74.4	154.5	154.5	157.9	144.3	161.5	70.4	146.8	146.8	156.2	126.6	162.0	68.0
	80	171.4	171.4	171.4	171.4	178.4	139.3	160.3	160.3	160.4	160.4	165.6	135.0	152.0	152.0	152.1	152.1	160.0	131.0
	85	176.7	176.7	176.8	176.8	176.9	176.9	163.8	163.8	164.8	164.8	165.1	165.1	165.1	165.1	165.1	165.1	165.1	165.1
	90	177.4	177.4	178.1	178.1	178.8	178.8	163.2	163.2	163.3	163.3	164.5	164.5	164.5	164.5	164.5	164.5	164.5	164.5

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. MBH = Total Gross Capacity, SHC = Sensible Heat Capacity



Performance Data

Table 31. Gross cooling capacities (MBH) both compressors- 25 tons TTA300J condensing unit with 25 tons TWE300E standard/SZVAV/2-speed VFD air handler (IP)

CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		85						95						105					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
8000	75	283.7	235.7	313.7	181.9	340.2	124.4	271.7	230.2	299.8	176.2	324.1	118.5	258.5	223.8	284.7	170.1	306.1	112.1
	80	283.3	278.5	312.9	225.0	339.4	168.0	266.6	266.6	299.1	219.3	323.3	162.2	256.0	256.0	284.0	213.2	305.4	155.7
	85	290.2	290.2	312.1	248.0	338.6	211.4	280.0	280.0	298.3	241.9	322.6	205.6	268.7	268.7	283.2	235.3	304.6	199.2
	90	303.9	303.9	311.6	283.5	337.9	235.8	293.1	293.1	297.8	277.4	321.8	229.7	281.1	281.1	282.6	270.8	303.8	223.0
9000	75	289.8	251.4	319.3	191.1	344.1	126.2	277.2	245.6	304.9	185.3	327.3	120.2	263.5	240.0	289.1	179.0	308.5	113.7
	80	286.2	286.2	318.5	239.6	343.3	175.3	275.9	275.9	304.1	233.8	326.5	169.4	264.4	264.4	288.2	227.4	307.7	162.8
	85	300.6	300.6	317.8	261.6	342.5	224.1	289.6	289.6	303.4	255.4	325.7	218.2	277.5	277.5	287.6	248.7	306.8	211.7
	90	314.5	314.5	317.2	300.8	341.7	248.2	302.8	302.8	302.8	294.5	324.9	241.8	289.6	289.6	289.7	281.8	306.0	234.7
10000	75	294.9	267.0	323.8	200.1	346.8	127.8	281.8	261.0	308.9	194.2	329.4	121.5	267.5	254.6	292.5	187.8	309.9	114.5
	80	294.8	294.8	322.9	253.9	346.0	182.5	283.8	283.8	308.0	247.8	328.6	176.5	271.7	271.7	291.7	241.3	309.0	169.8
	85	309.3	309.3	322.3	274.6	345.2	236.8	297.7	297.7	307.4	268.3	327.8	230.8	284.7	284.7	291.1	261.4	308.2	224.2
	90	323.1	323.1	323.9	312.6	344.4	259.7	310.6	310.6	310.9	301.6	327.0	253.2	296.3	296.3	296.8	292.5	307.4	245.9
11000	75	299.1	283.4	327.4	208.9	348.8	128.8	285.6	276.3	312.1	203.0	330.8	122.4	271.9	266.9	295.3	196.6	310.7	115.3
	80	302.1	302.1	326.6	267.8	348.0	189.6	290.6	290.6	311.3	261.7	330.0	183.6	277.8	277.8	294.5	255.1	309.8	176.8
	85	316.7	316.7	326.0	286.9	347.1	249.4	304.4	304.4	310.6	280.5	329.2	243.4	290.6	290.6	293.8	273.6	309.0	236.6
	90	330.2	330.2	330.3	320.8	346.3	270.6	316.8	316.8	316.8	311.8	328.4	264.0	301.3	301.3	301.5	299.9	308.1	256.7
12000	75	303.7	296.4	330.4	217.7	351.0	130.0	291.2	284.7	314.7	211.7	332.4	123.5	277.9	271.8	297.5	205.2	312.0	116.4
	80	308.4	308.4	329.6	281.6	350.2	197.1	296.4	296.4	313.9	275.5	331.6	190.9	283.0	283.0	296.7	268.8	311.1	184.2
	85	323.0	323.0	328.9	298.8	349.4	262.4	310.0	310.0	313.3	292.3	330.7	255.6	295.4	295.4	296.0	285.2	310.3	248.6
	90	335.9	335.9	336.5	332.7	348.6	281.5	321.6	321.6	322.2	320.8	330.0	274.7	304.9	304.9	307.8	303.0	309.4	267.4
CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		115						125						135					
		Entering Wet Bulb (°F)						Entering Wet Bulb (°F)						Entering Wet Bulb (°F)					
		61		67		73		61		67		73		61		67		73	
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
8000	75	246.0	218.0	269.0	163.8	286.9	105.3	236.3	213.5	254.1	157.9	267.6	98.6						
	80	245.6	245.6	268.3	206.9	286.1	149.0	237.1	237.1	253.3	200.9	266.8	142.3						
	85	256.9	256.9	267.6	228.5	285.3	192.4	246.1	246.1	252.7	222.2	266.0	185.7						
	90	268.2	268.2	268.4	260.9	284.5	215.7	255.3	255.3	257.9	251.0	265.2	208.5						
9000	75	250.0	233.2	272.7	172.6	288.3	106.4	239.4	228.4	257.1	166.5	268.0	99.2						
	80	252.7	252.7	271.8	220.8	287.5	155.9	242.9	242.9	256.3	214.6	267.2	149.0						
	85	264.7	264.7	271.3	241.8	286.7	204.8	252.1	252.1	255.6	235.2	266.3	197.9						
	90	275.4	275.4	275.5	267.9	285.8	227.3	260.7	260.7	263.2	258.0	265.4	219.8						
10000	75	253.3	248.2	275.5	181.3	288.9	107.1	240.1	240.1	259.3	175.1	268.0	100.6						
	80	259.1	259.1	274.7	234.6	288.1	162.8	247.4	247.4	258.5	228.1	267.3	154.4						
	85	270.8	270.8	274.1	254.3	287.3	217.1	257.1	257.1	257.8	247.7	266.4	210.4						
	90	280.6	280.6	281.1	278.7	286.3	238.3	264.0	264.0	265.1	261.9	265.5	226.7						
11000	75	253.6	253.6	277.8	189.9	289.6	108.0	242.0	242.0	261.0	183.7	268.3	100.8						
	80	264.4	264.4	277.0	248.2	288.8	169.9	251.5	251.5	260.2	241.7	267.5	162.9						
	85	275.7	275.7	276.3	266.4	287.9	229.0	260.8	260.8	263.3	250.0	266.6	221.7						
	90	284.1	284.1	286.1	282.5	287.0	249.1	265.3	265.3	265.3	265.3	265.5	241.5						
12000	75	256.4	256.4	279.6	198.5	290.3	109.0	245.3	245.3	262.4	192.2	268.5	101.6						
	80	268.9	268.9	278.8	261.8	289.4	177.1	255.2	255.2	261.5	255.1	267.7	170.1						
	85	279.6	279.6	279.7	271.5	288.6	241.2	263.4	263.4	263.7	254.5	266.7	233.7						
	90	286.0	286.0	287.3	285.3	287.6	259.7	265.5	265.5	265.5	265.5	265.5	252.0						

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain net cooling, subtract indoor fan heat.
2. MBH = Total Gross Capacity, SHC = Sensible Heat Capacity

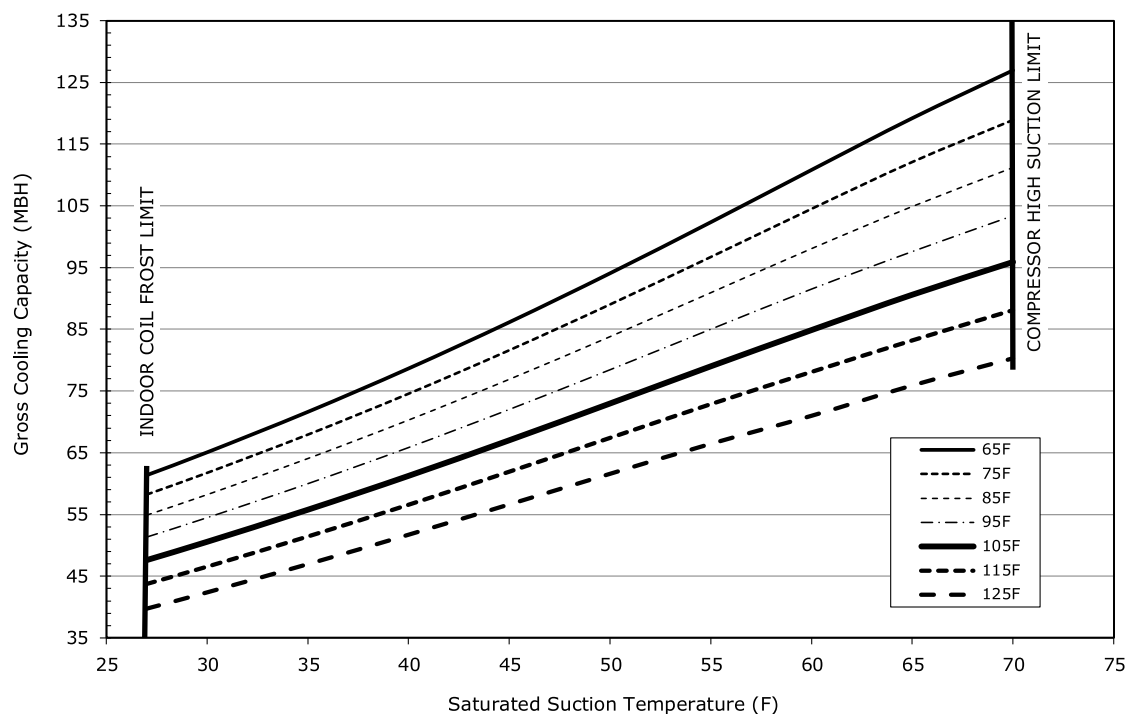
Table 32. Gross cooling capacities (MBH) 6 tons TTA073G condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	243.0	247.9	253.1	258.5	264.0	269.5
	Capacity (Btuh/1000)	65.1	71.6	78.6	86.1	94.1	102.3
	Unit Power (kW)	4.0	4.1	4.1	4.2	4.3	4.3
75	Head Press (psig)	279.9	285.0	290.4	295.9	301.5	307.0
	Capacity (Btuh/1000)	61.7	67.9	74.6	81.6	89.0	96.7
	Unit Power (kW)	4.5	4.5	4.6	4.7	4.7	4.8
85	Head Press (psig)	320.5	325.8	331.3	336.9	342.6	348.1
	Capacity (Btuh/1000)	58.2	64.1	70.3	76.9	83.8	90.9
	Unit Power (kW)	5.0	5.1	5.1	5.2	5.2	5.3
95	Head Press (psig)	364.8	370.3	376.0	381.7	387.4	392.8
	Capacity (Btuh/1000)	54.5	60.0	65.8	72.0	78.4	85.0
	Unit Power (kW)	5.6	5.6	5.7	5.8	5.8	5.9
105	Head Press (psig)	413.1	418.7	424.5	430.2	435.8	441.2
	Capacity (Btuh/1000)	50.6	55.8	61.3	67.0	73.0	79.0
	Unit Power (kW)	6.3	6.3	6.4	6.4	6.5	6.5
115	Head Press (psig)	465.3	471.0	476.8	482.5	488.0	493.2
	Capacity (Btuh/1000)	46.5	51.4	56.6	61.9	67.4	72.9
	Unit Power (kW)	7.0	7.1	7.1	7.2	7.2	7.3
125	Head Press (psig)	521.5	527.1	532.7	538.1	543.3	548.1
	Capacity (Btuh/1000)	42.4	46.9	51.7	56.6	61.6	66.4
	Unit Power (kW)	7.9	8.0	8.0	8.0	8.1	8.1

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Figure 8. TTA073G capacity curve

Capacity Curves-Condensing Unit Only





Performance Data

Table 33. Gross cooling capacities (MBH) 6 tons TTA073H condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	263.9	270.2	275.6	281.1	286.0	290.1
	Capacity (Btuh/1000)	67.1	74.1	81.7	89.8	98.6	107.9
	Unit Power (kW)	3.9	3.9	4.0	4.0	4.1	4.1
75	Head Press (psig)	303.7	310.2	316.7	322.8	328.4	333.0
	Capacity (Btuh/1000)	63.4	70.1	77.3	85.1	93.5	102.4
	Unit Power (kW)	4.4	4.4	4.5	4.5	4.6	4.6
85	Head Press (psig)	347.2	354.4	361.5	368.4	374.6	379.8
	Capacity (Btuh/1000)	59.5	65.9	72.7	80.1	88.1	96.6
	Unit Power (kW)	4.9	5.0	5.0	5.1	5.1	5.1
95	Head Press (psig)	394.6	402.4	410.3	417.8	424.7	430.5
	Capacity (Btuh/1000)	55.4	61.4	68.0	75.0	82.6	90.7
	Unit Power (kW)	5.5	5.5	5.6	5.7	5.7	5.7
105	Head Press (psig)	445.9	454.3	462.7	470.8	478.3	484.6
	Capacity (Btuh/1000)	51.2	57.0	63.2	69.9	77.2	85.0
	Unit Power (kW)	6.2	6.2	6.3	6.3	6.4	6.4
115	Head Press (psig)	506.2	509.8	518.5	526.9	534.6	541.1
	Capacity (Btuh/1000)	47.1	52.7	58.7	65.2	72.3	79.8
	Unit Power (kW)	7.1	7.1	7.1	7.1	7.2	7.2
125	Head Press (psig)	594.4	593.3	591.1	589.4	592.4	598.9
	Capacity (Btuh/1000)	44.2	49.6	55.3	61.3	67.8	74.9
	Unit Power (kW)	8.5	8.4	8.2	8.1	8.0	8.0

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Figure 9. TTA073H capacity curve

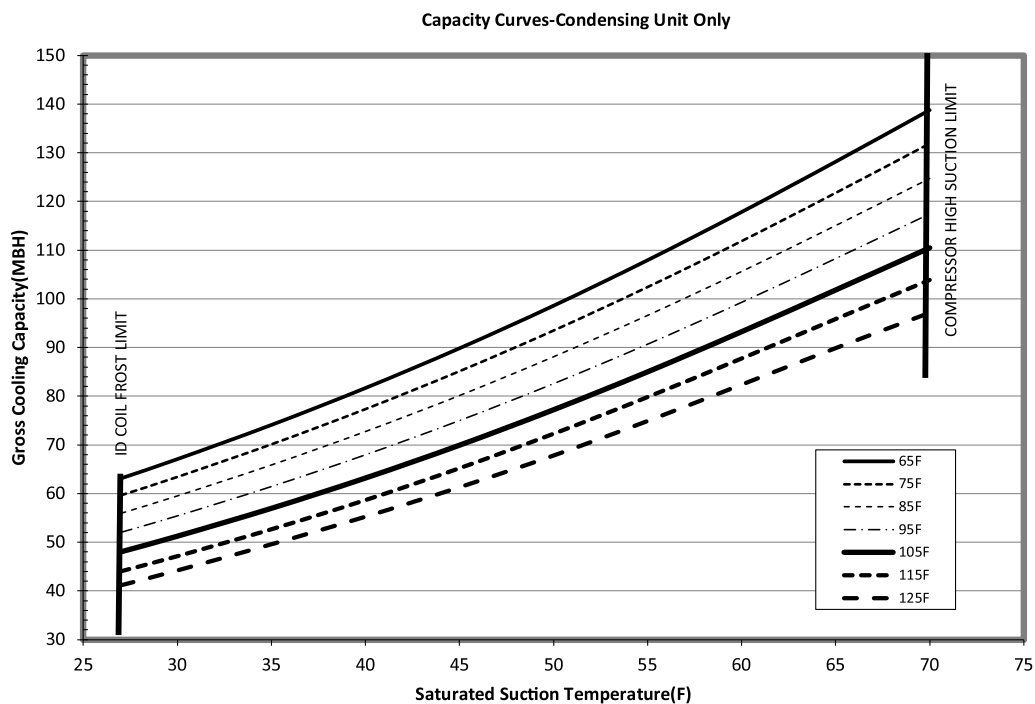


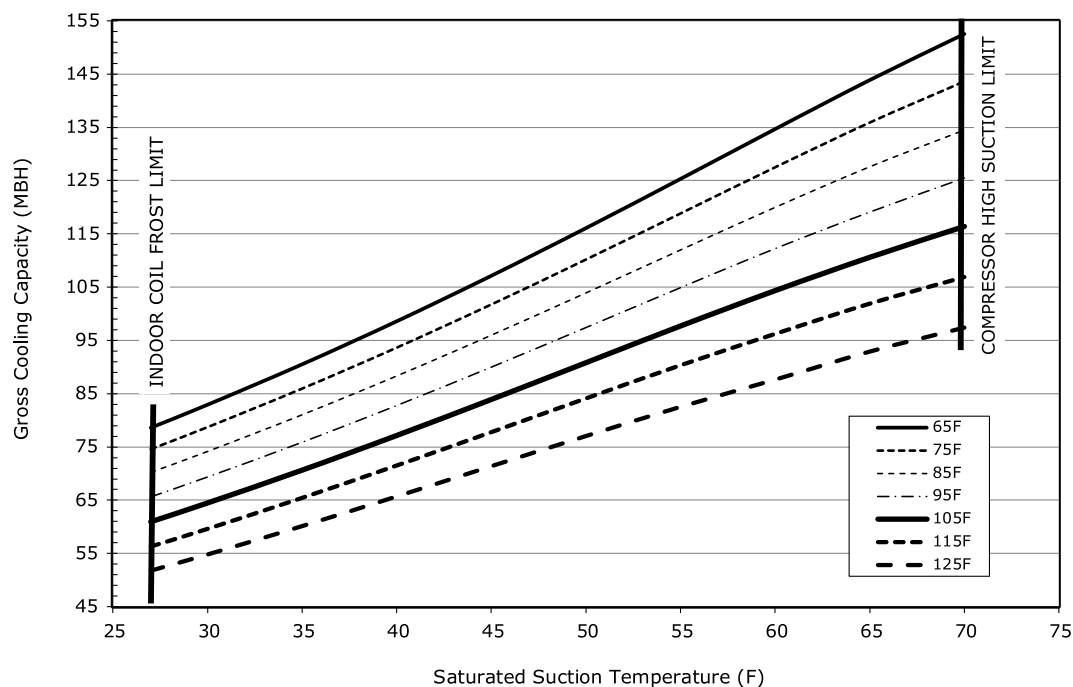
Table 34. Gross cooling capacities (MBH) 7.5 tons TTA090G condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	264.0	270.6	277.4	284.5	291.8	299.1
	Capacity (Btuh/1000)	82.9	90.5	98.6	107.1	116.1	125.3
	Unit Power (kW)	5.2	5.3	5.5	5.6	5.7	5.9
75	Head Press (psig)	302.2	309.0	316.2	323.5	330.9	338.2
	Capacity (Btuh/1000)	78.7	86.0	93.6	101.7	110.2	118.8
	Unit Power (kW)	5.7	5.8	5.9	6.1	6.2	6.4
85	Head Press (psig)	343.9	351.0	358.3	365.8	373.3	380.7
	Capacity (Btuh/1000)	74.1	81.0	88.3	96.0	103.9	112.0
	Unit Power (kW)	6.3	6.4	6.5	6.6	6.8	6.9
95	Head Press (psig)	389.2	396.5	404.0	411.7	419.2	426.6
	Capacity (Btuh/1000)	69.4	75.9	82.8	90.0	97.4	104.9
	Unit Power (kW)	6.9	7.0	7.1	7.3	7.4	7.5
105	Head Press (psig)	438.3	445.8	453.5	461.1	468.6	475.9
	Capacity (Btuh/1000)	64.5	70.6	77.2	83.9	90.8	97.7
	Unit Power (kW)	7.6	7.7	7.8	8.0	8.1	8.2
115	Head Press (psig)	491.3	498.8	506.4	513.9	521.2	528.1
	Capacity (Btuh/1000)	59.6	65.4	71.5	77.8	84.1	90.3
	Unit Power (kW)	8.4	8.5	8.6	8.7	8.9	9.0
125	Head Press (psig)	548.5	555.1	562.3	569.3	576.1	582.5
	Capacity (Btuh/1000)	54.8	60.1	65.7	71.4	77.0	82.5
	Unit Power (kW)	9.3	9.4	9.5	9.6	9.7	9.8

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Figure 10. TTA090G capacity curve

Capacity Curves-Condensing Unit Only





Performance Data

Table 35. Gross cooling capacities (MBH) 7.5 tons TTA090H condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	268.1	271.7	274.9	279.1	286.3	284.1
	Capacity (Btuh/1000)	81.1	89.7	98.7	108.2	118.2	126.5
	Unit Power (kW)	5.2	5.2	5.2	5.3	5.3	5.2
75	Head Press (psig)	308.3	311.5	314.7	317.6	317.5	321.9
	Capacity (Btuh/1000)	76.2	84.8	93.4	102.4	110.8	119.4
	Unit Power (kW)	5.8	5.8	5.8	5.8	5.8	5.8
85	Head Press (psig)	352.1	355.2	358.3	360.8	359.0	363.4
	Capacity (Btuh/1000)	71.5	79.7	87.9	96.3	104.1	112.1
	Unit Power (kW)	6.5	6.5	6.5	6.5	6.4	6.4
95	Head Press (psig)	382.0	402.9	406.1	408.3	404.3	408.6
	Capacity (Btuh/1000)	67.0	74.2	82.0	90.0	97.3	104.7
	Unit Power (kW)	7.0	7.3	7.3	7.3	7.1	7.1
105	Head Press (psig)	432.8	436.4	457.7	459.9	453.4	457.5
	Capacity (Btuh/1000)	61.8	68.6	76.2	83.8	90.4	97.2
	Unit Power (kW)	8.0	7.9	8.2	8.2	8.0	7.9
115	Head Press (psig)	487.9	491.5	513.1	501.1	506.2	510.1
	Capacity (Btuh/1000)	56.6	63.1	70.5	76.7	83.4	89.7
	Unit Power (kW)	9.0	9.0	9.3	8.9	8.9	8.9
125	Head Press (psig)	546.9	550.4	553.4	557.2	562.1	565.6
	Capacity (Btuh/1000)	51.5	57.7	63.9	70.1	76.3	81.9
	Unit Power (kW)	10.2	10.2	10.1	10.0	10.0	9.9

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Figure 11. TTA090H capacity curve

Capacity Curves-Condensing Unit Only

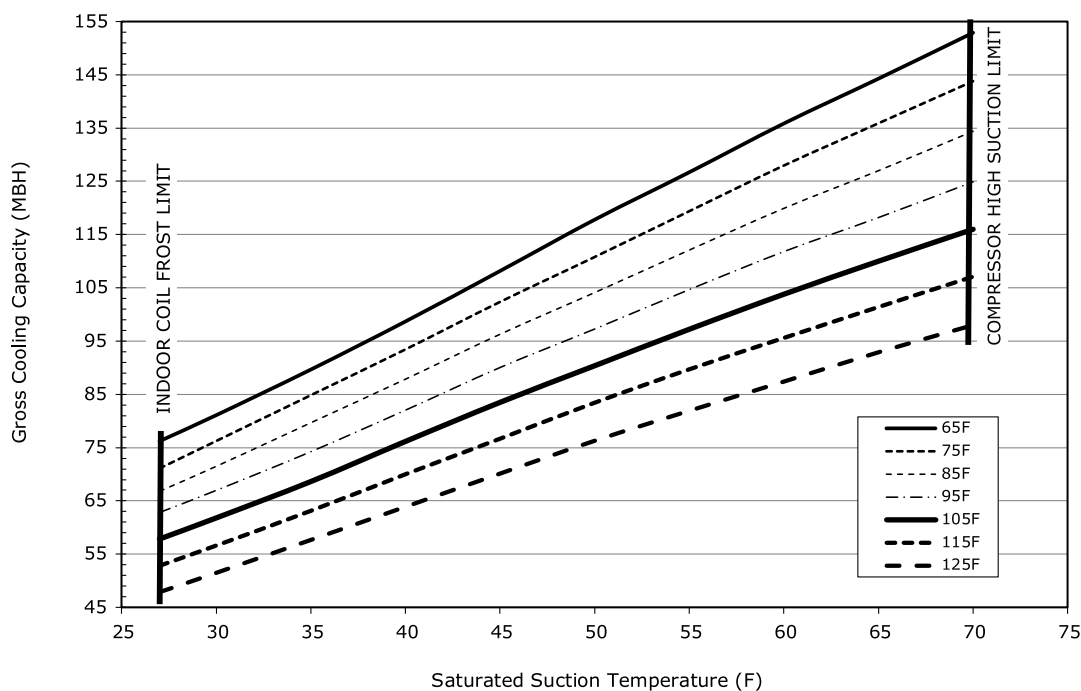


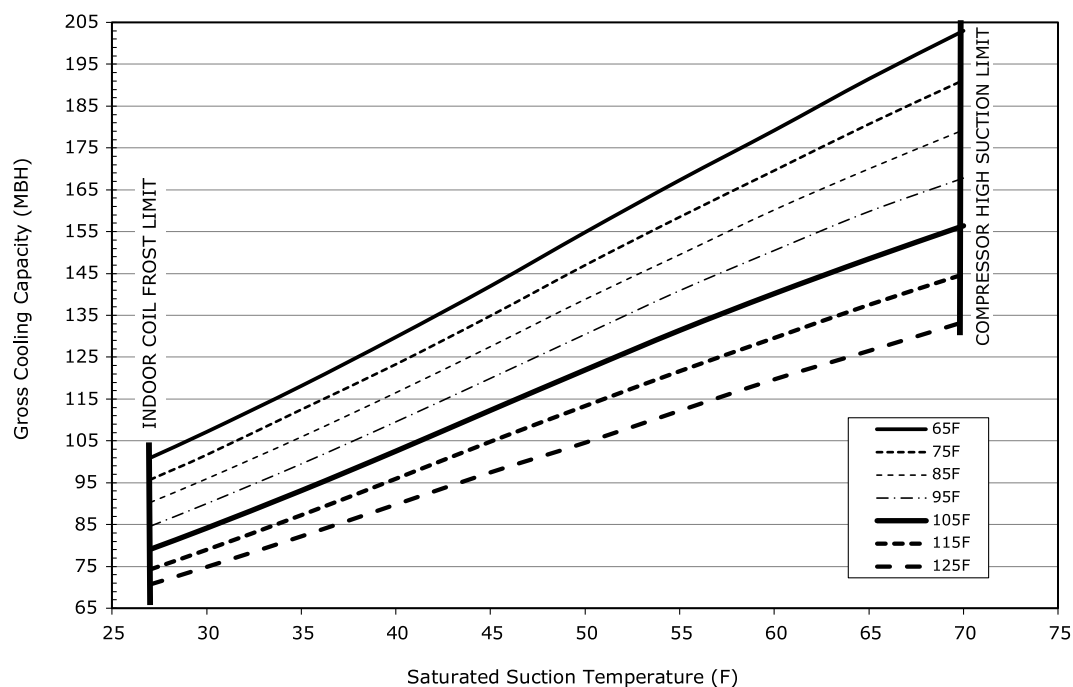
Table 36. Gross cooling capacities (MBH) 10 tons TTA120G condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	277.6	279.1	280.1	280.7	285.8	290.8
	Capacity (Btuh/1000)	107.1	118.1	129.8	142.0	154.8	168.0
	Unit Power (kW)	7.5	7.5	7.5	7.6	7.7	7.8
75	Head Press (psig)	319.5	319.9	320.4	320.2	324.1	328.5
	Capacity (Btuh/1000)	101.7	112.5	123.3	134.9	147.0	159.3
	Unit Power (kW)	8.2	8.2	8.2	8.2	8.3	8.4
85	Head Press (psig)	366.4	366.0	365.1	363.7	366.2	369.9
	Capacity (Btuh/1000)	95.9	105.9	116.5	127.5	138.8	150.2
	Unit Power (kW)	9.0	9.0	9.0	9.0	9.0	9.1
95	Head Press (psig)	418.8	416.8	414.4	411.6	412.1	415.0
	Capacity (Btuh/1000)	90.0	99.5	109.6	120.0	130.5	140.9
	Unit Power (kW)	10.0	10.0	9.9	9.8	9.8	9.9
105	Head Press (psig)	477.2	472.9	468.4	463.9	461.8	463.7
	Capacity (Btuh/1000)	84.2	93.1	102.6	112.3	121.9	131.4
	Unit Power (kW)	11.1	11.0	10.9	10.8	10.8	10.8
115	Head Press (psig)	540.7	533.6	526.8	520.2	514.8	515.6
	Capacity (Btuh/1000)	79.0	87.2	95.9	104.8	113.3	121.7
	Unit Power (kW)	12.3	12.2	12.1	11.9	11.8	11.8
125	Head Press (psig)	607.4	597.9	588.7	580.1	571.9	570.0
	Capacity (Btuh/1000)	74.9	82.2	89.8	97.5	104.6	111.3
	Unit Power (kW)	13.6	13.4	13.3	13.1	12.9	12.9

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Figure 12. TTA120G capacity curve

Capacity Curves-Condensing Unit Only





Performance Data

Table 37. Gross cooling capacities (MBH) 10 tons TTA120H condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	258.3	263.5	268.7	273.9	278.7	283.1
	Capacity (Btuh/1000)	109.3	119.8	130.9	142.7	155.3	168.3
	Unit Power (kW)	7.0	7.1	7.2	7.2	7.3	7.4
75	Head Press (psig)	295.9	301.2	306.6	311.8	316.6	321.0
	Capacity (Btuh/1000)	103.7	113.6	124.0	135.4	147.3	159.3
	Unit Power (kW)	7.8	7.9	7.9	8.0	8.1	8.2
85	Head Press (psig)	336.9	342.5	347.9	353.0	357.8	362.2
	Capacity (Btuh/1000)	97.7	107.0	117.1	127.8	138.9	150.1
	Unit Power (kW)	8.6	8.7	8.8	8.9	9.0	9.0
95	Head Press (psig)	381.6	387.2	392.7	397.8	402.5	406.7
	Capacity (Btuh/1000)	91.3	100.2	109.9	120.0	130.3	140.6
	Unit Power (kW)	9.6	9.7	9.8	9.8	9.9	10.0
105	Head Press (psig)	429.9	435.6	441.0	446.1	450.7	454.7
	Capacity (Btuh/1000)	84.7	93.4	102.5	111.9	121.5	131.0
	Unit Power (kW)	10.7	10.8	10.9	10.9	11.0	11.0
115	Head Press (psig)	481.8	487.4	492.8	497.7	502.1	506.0
	Capacity (Btuh/1000)	78.2	86.4	94.9	103.7	112.6	121.2
	Unit Power (kW)	12.0	12.1	12.1	12.2	12.2	12.2
125	Head Press (psig)	537.2	542.6	547.7	552.4	556.5	560.1
	Capacity (Btuh/1000)	71.4	79.1	87.1	95.2	103.2	110.9
	Unit Power (kW)	13.5	13.5	13.5	13.6	13.6	13.6

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Figure 13. TTA120H capacity curve

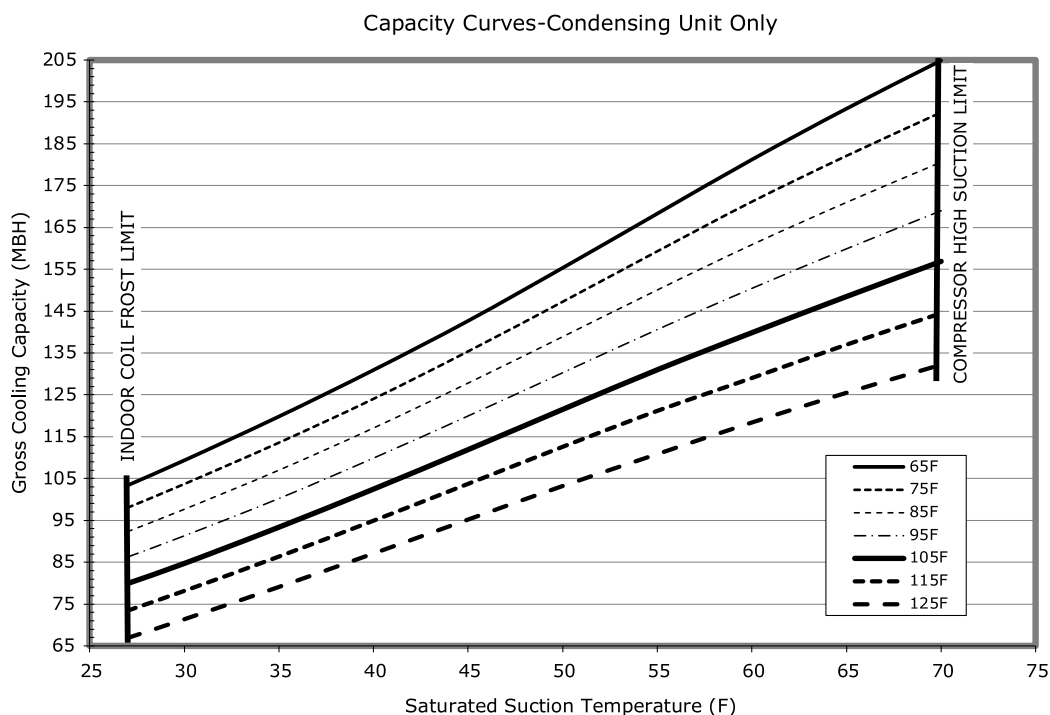
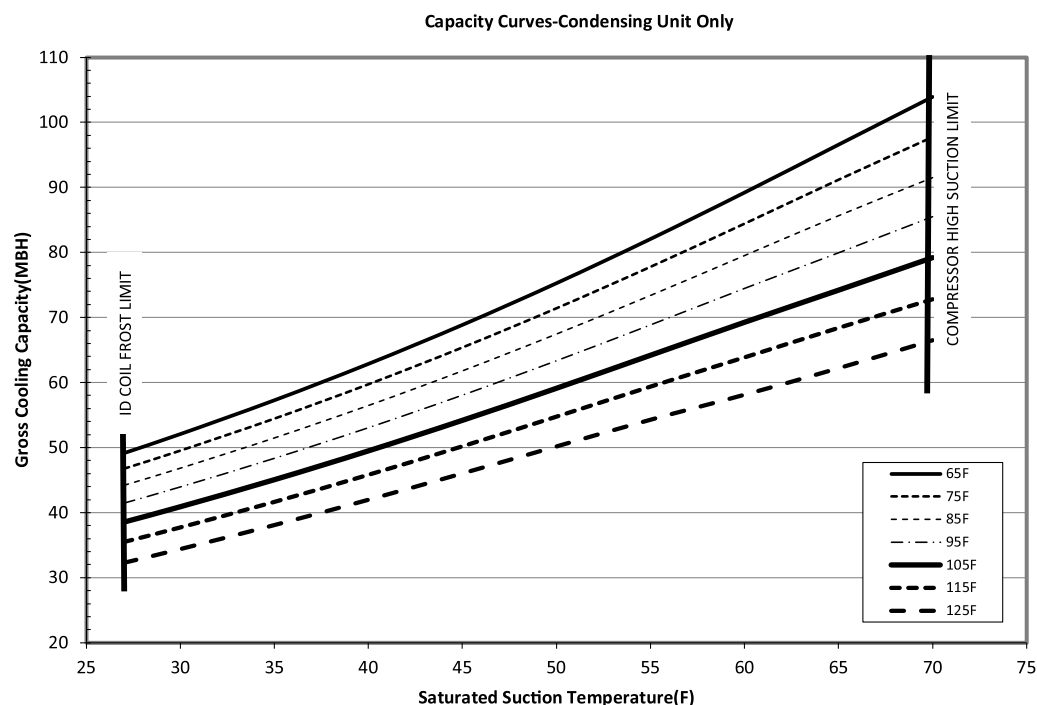


Table 38. Gross cooling capacities (MBH) one compressor - 10 tons TTA120J condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	220.9	223.6	226.4	229.3	232.3	235.3
	Capacity (Btuh/1000)	52.1	57.3	62.9	68.9	75.3	82.1
	Unit Power (kW)	3.6	3.6	3.6	3.6	3.6	3.7
75	Head Press (psig)	256.2	258.9	261.8	264.8	267.8	270.8
	Capacity (Btuh/1000)	49.5	54.4	59.7	65.4	71.4	77.8
	Unit Power (kW)	3.9	3.9	3.9	3.9	4.0	4.0
85	Head Press (psig)	295.1	297.9	300.9	303.9	306.9	309.9
	Capacity (Btuh/1000)	46.8	51.5	56.5	61.8	67.4	73.4
	Unit Power (kW)	4.2	4.3	4.3	4.3	4.3	4.3
95	Head Press (psig)	338.0	340.9	343.8	346.9	349.9	352.9
	Capacity (Btuh/1000)	43.9	48.3	53.0	58.1	63.3	68.9
	Unit Power (kW)	4.6	4.6	4.7	4.7	4.7	4.7
105	Head Press (psig)	385.0	387.9	390.9	393.9	396.9	399.9
	Capacity (Btuh/1000)	40.9	45.1	49.5	54.2	59.1	64.2
	Unit Power (kW)	5.1	5.1	5.1	5.1	5.1	5.2
115	Head Press (psig)	436.3	439.3	442.2	445.2	448.1	451.0
	Capacity (Btuh/1000)	37.7	41.6	45.8	50.2	54.8	59.4
	Unit Power (kW)	5.6	5.6	5.6	5.6	5.6	5.7
125	Head Press (psig)	492.1	495.0	497.9	500.7	503.5	506.2
	Capacity (Btuh/1000)	34.4	38.1	42.0	46.0	50.2	54.3
	Unit Power (kW)	6.2	6.2	6.2	6.2	6.2	6.2

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Figure 14. TTA120J - one compressor - capacity curve


Performance Data

Table 39. Gross cooling capacities (MBH) both compressors - 10 tons TTA120J condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	259.8	266.3	273.1	280.1	287.1	293.8
	Capacity (Btuh/1000)	103.8	113.9	124.6	136.1	148.1	160.5
	Unit Power (kW)	6.6	6.7	6.8	7.0	7.1	7.2
75	Head Press (psig)	297.6	304.2	311.1	318.2	325.1	331.7
	Capacity (Btuh/1000)	98.5	108.1	118.2	129.0	140.3	151.8
	Unit Power (kW)	7.3	7.4	7.5	7.7	7.8	7.9
85	Head Press (psig)	339.8	345.7	352.8	359.9	366.7	373.1
	Capacity (Btuh/1000)	92.9	101.9	111.5	121.6	132.2	142.9
	Unit Power (kW)	8.1	8.2	8.3	8.4	8.6	8.7
95	Head Press (psig)	386.0	391.0	398.2	405.3	412.0	418.1
	Capacity (Btuh/1000)	86.9	95.5	104.5	114.0	123.9	133.7
	Unit Power (kW)	9.1	9.1	9.2	9.3	9.4	9.5
105	Head Press (psig)	436.4	440.6	447.4	454.4	460.9	466.7
	Capacity (Btuh/1000)	80.8	88.9	97.4	106.3	115.4	124.5
	Unit Power (kW)	10.1	10.2	10.2	10.3	10.4	10.5
115	Head Press (psig)	491.1	495.1	500.1	506.9	513.1	518.5
	Capacity (Btuh/1000)	74.5	82.2	90.2	98.5	106.9	115.1
	Unit Power (kW)	11.4	11.4	11.4	11.5	11.6	11.6
125	Head Press (psig)	550.1	553.5	556.9	562.3	568.0	572.8
	Capacity (Btuh/1000)	68.3	75.5	82.9	90.4	98.0	105.2
	Unit Power (kW)	12.8	12.8	12.7	12.8	12.8	12.9

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Figure 15. TTA120J - both compressors - capacity curve

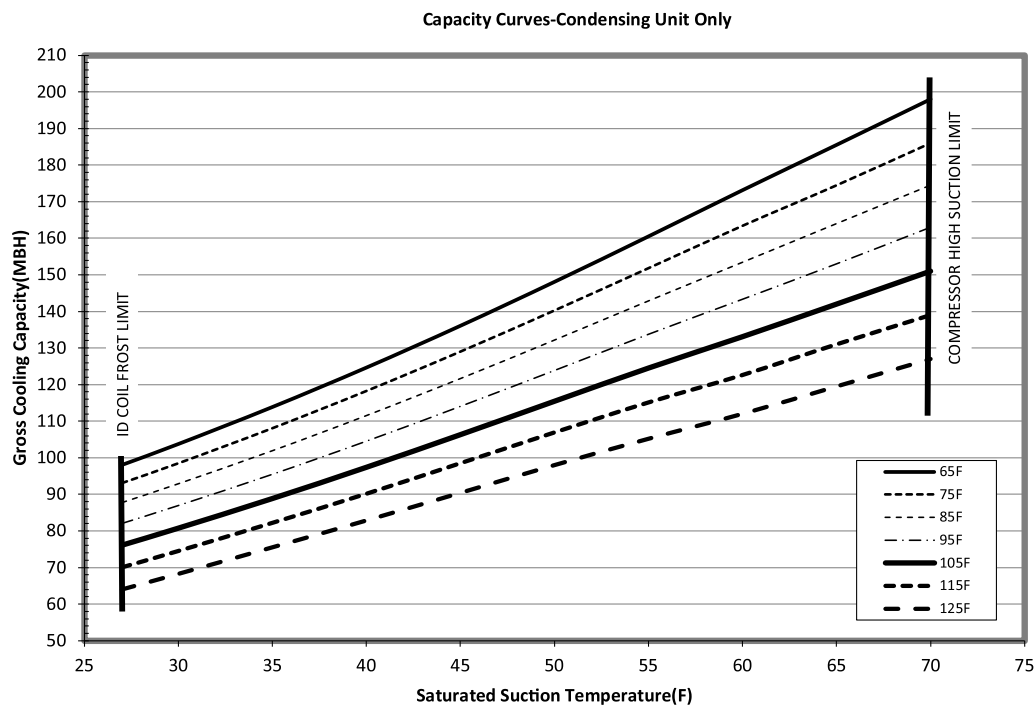
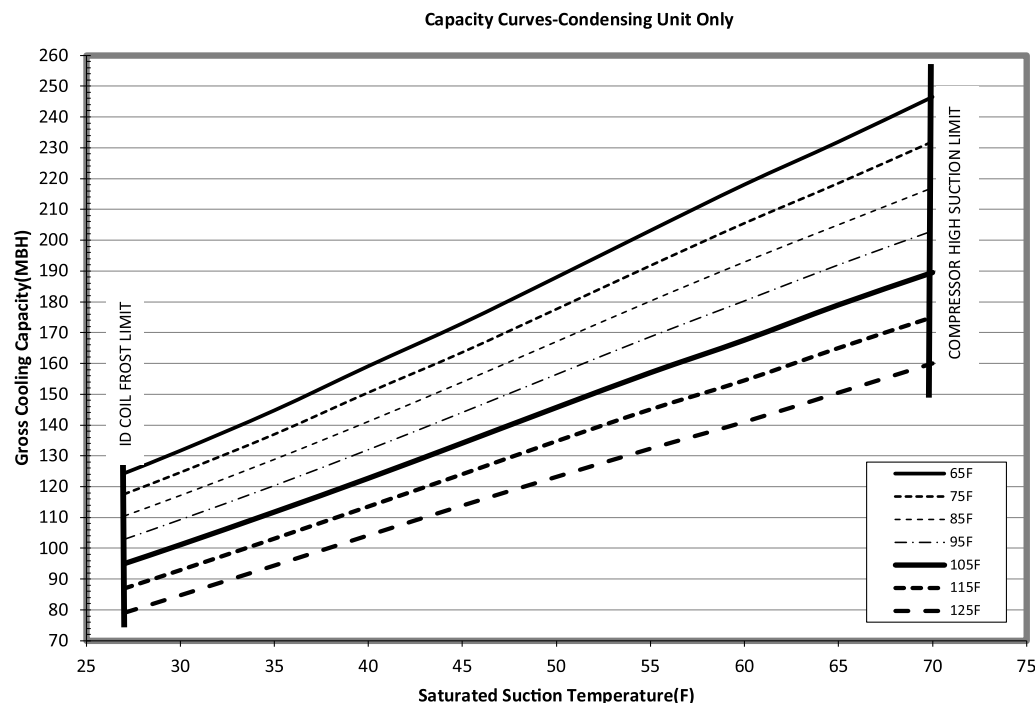


Table 40. Gross cooling capacities (MBH) 12.5 tons TTA150H condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	273.5	280.9	288.9	296.5	304.6	312.5
	Capacity (Btuh/1000)	131.7	144.7	159.1	173.0	188.0	203.1
	Unit Power (kW)	9.0	9.1	9.2	9.3	9.4	9.6
75	Head Press (psig)	312.8	320.5	328.8	336.7	345.0	353.0
	Capacity (Btuh/1000)	124.6	137.0	150.6	163.6	177.6	191.7
	Unit Power (kW)	9.9	10.0	10.1	10.2	10.3	10.5
85	Head Press (psig)	356.4	363.6	372.0	380.5	388.9	397.0
	Capacity (Btuh/1000)	117.1	128.8	141.1	153.9	167.1	180.2
	Unit Power (kW)	10.8	11.0	11.1	11.2	11.3	11.4
95	Head Press (psig)	405.7	410.5	419.0	427.8	436.3	444.4
	Capacity (Btuh/1000)	109.3	120.3	132.0	144.0	156.4	168.7
	Unit Power (kW)	12.0	12.1	12.2	12.3	12.4	12.5
105	Head Press (psig)	459.8	464.3	469.6	478.5	487.0	494.9
	Capacity (Btuh/1000)	101.1	111.8	122.7	134.2	145.7	157.0
	Unit Power (kW)	13.3	13.3	13.4	13.5	13.6	13.7
115	Head Press (psig)	519.3	522.9	527.0	532.0	540.3	547.8
	Capacity (Btuh/1000)	92.9	103.1	113.5	124.1	134.7	145.1
	Unit Power (kW)	14.7	14.7	14.8	14.8	14.9	14.9
125	Head Press (psig)	583.0	586.9	589.4	592.6	595.9	602.1
	Capacity (Btuh/1000)	84.7	94.4	104.2	113.9	123.2	132.3
	Unit Power (kW)	16.2	16.2	16.2	16.3	16.3	16.3

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Figure 16. TTA150H capacity curve




Performance Data

Table 41. Gross cooling capacities (MBH) 15 tons TTA180H condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	244.6	249.6	254.8	260.4	266.3	272.3
	Capacity (Btuh/1000)	160.9	175.9	192.0	209.4	228.0	247.8
	Unit Power (kW)	10.5	10.7	10.9	11.1	11.4	11.7
75	Head Press (psig)	281.5	286.7	292.2	298.0	304.0	310.1
	Capacity (Btuh/1000)	153.2	167.6	183.1	199.8	217.6	236.5
	Unit Power (kW)	11.4	11.6	11.8	12.0	12.3	12.5
85	Head Press (psig)	322.1	327.4	333.1	339.1	345.3	351.5
	Capacity (Btuh/1000)	144.7	158.5	173.3	189.2	206.2	224.2
	Unit Power (kW)	12.4	12.6	12.8	13.0	13.2	13.5
95	Head Press (psig)	367.5	372.0	377.9	384.1	390.3	396.5
	Capacity (Btuh/1000)	135.6	148.8	162.9	178.0	194.2	211.2
	Unit Power (kW)	13.6	13.7	13.9	14.1	14.3	14.6
105	Head Press (psig)	417.5	421.3	426.7	432.9	439.2	445.4
	Capacity (Btuh/1000)	126.2	138.7	152.2	166.5	181.8	197.9
	Unit Power (kW)	15.0	15.1	15.2	15.4	15.6	15.8
115	Head Press (psig)	472.4	475.9	479.6	485.8	492.0	497.9
	Capacity (Btuh/1000)	116.8	128.7	141.4	155.0	169.3	184.3
	Unit Power (kW)	16.5	16.6	16.7	16.9	17.1	17.3
125	Head Press (psig)	532.5	535.6	538.7	542.3	548.1	553.6
	Capacity (Btuh/1000)	107.8	119.0	131.0	143.5	156.6	170.3
	Unit Power (kW)	18.3	18.4	18.5	18.6	18.7	18.9

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Figure 17. TTA180H capacity curve

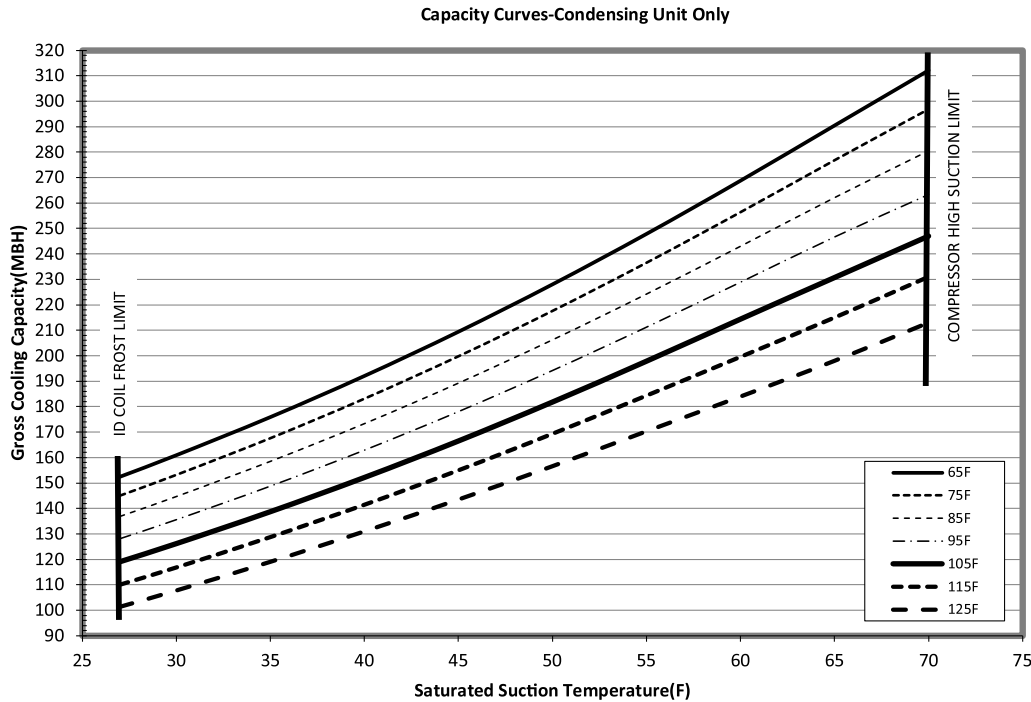
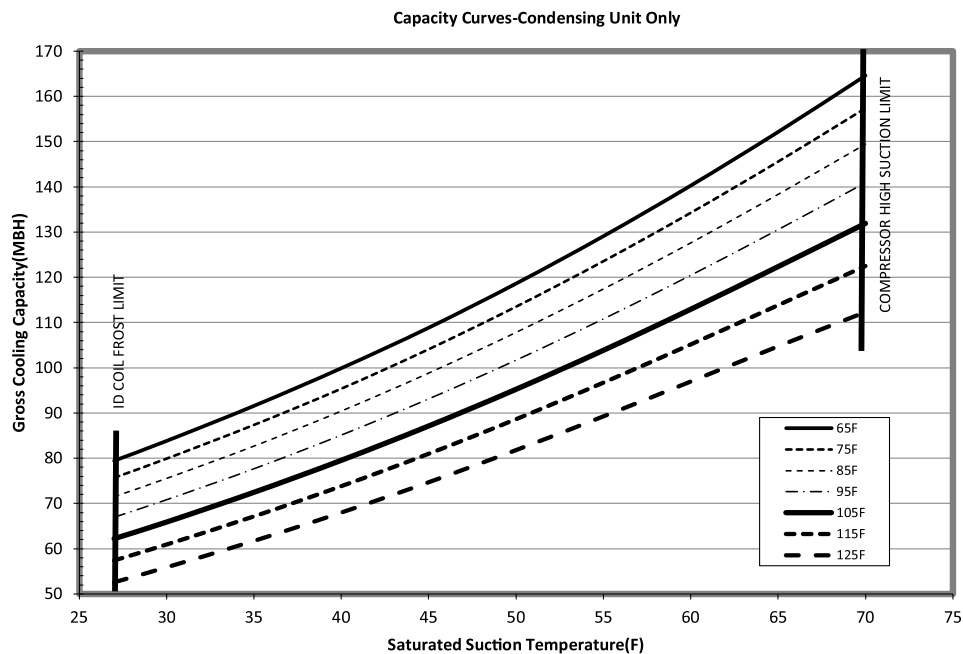


Table 42. Gross cooling capacities (MBH) one compressor - 15 tons TTA180J condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	228.4	231.6	235.0	238.7	242.6	246.7
	Capacity (Btuh/1000)	83.8	91.6	99.9	108.8	118.6	129.1
	Unit Power (kW)	5.2	5.3	5.4	5.5	5.6	5.7
75	Head Press (psig)	264.5	267.9	271.5	275.4	279.5	283.7
	Capacity (Btuh/1000)	79.9	87.3	95.4	104.1	113.5	123.5
	Unit Power (kW)	5.7	5.7	5.8	5.9	6.0	6.2
85	Head Press (psig)	304.2	307.8	311.6	315.6	319.9	324.3
	Capacity (Btuh/1000)	75.5	82.7	90.4	98.8	107.8	117.4
	Unit Power (kW)	6.2	6.3	6.3	6.4	6.5	6.6
95	Head Press (psig)	347.9	351.6	355.5	359.7	364.0	368.5
	Capacity (Btuh/1000)	70.8	77.7	85.1	93.1	101.7	110.8
	Unit Power (kW)	6.8	6.8	6.9	7.0	7.1	7.2
105	Head Press (psig)	395.7	399.5	403.5	407.7	412.2	416.7
	Capacity (Btuh/1000)	65.9	72.5	79.5	87.1	95.2	103.8
	Unit Power (kW)	7.4	7.5	7.6	7.7	7.8	7.9
115	Head Press (psig)	447.9	451.7	455.7	460.0	464.4	468.8
	Capacity (Btuh/1000)	60.9	67.1	73.8	81.0	88.6	96.7
	Unit Power (kW)	8.2	8.3	8.3	8.4	8.5	8.6
125	Head Press (psig)	504.9	508.5	512.3	516.4	520.5	524.8
	Capacity (Btuh/1000)	55.9	61.7	68.0	74.7	81.8	89.2
	Unit Power (kW)	9.1	9.1	9.2	9.3	9.3	9.4

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Figure 18. TTA180J - one compressor - capacity curve




Performance Data

Table 43. Gross cooling capacities (MBH) both compressors - 15 tons TTA180J condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	273.9	280.3	288.3	296.8	305.7	314.9
	Capacity (Btuh/1000)	167.1	182.3	198.8	216.2	234.7	254.1
	Unit Power (kW)	10.1	10.3	10.6	10.9	11.2	11.5
75	Head Press (psig)	313.6	319.4	327.7	336.5	345.7	355.0
	Capacity (Btuh/1000)	158.6	173.1	188.8	205.4	222.9	241.2
	Unit Power (kW)	11.1	11.3	11.6	11.9	12.2	12.5
85	Head Press (psig)	357.0	362.9	370.6	379.6	389.0	398.5
	Capacity (Btuh/1000)	149.4	163.3	178.1	193.9	210.5	227.7
	Unit Power (kW)	12.2	12.4	12.7	13.0	13.3	13.6
95	Head Press (psig)	405.2	410.6	417.1	426.3	435.8	445.3
	Capacity (Btuh/1000)	140.2	153.1	167.0	182.0	197.7	213.9
	Unit Power (kW)	13.5	13.7	13.9	14.2	14.5	14.8
105	Head Press (psig)	456.7	462.6	468.6	476.6	486.0	495.2
	Capacity (Btuh/1000)	130.3	142.9	156.1	170.1	184.9	200.1
	Unit Power (kW)	15.0	15.2	15.4	15.6	15.9	16.2
115	Head Press (psig)	513.1	518.8	524.5	530.4	538.9	547.7
	Capacity (Btuh/1000)	121.2	133.2	145.6	158.4	172.0	185.9
	Unit Power (kW)	16.7	16.9	17.0	17.2	17.5	17.7
125	Head Press (psig)	574.1	579.0	584.1	589.3	594.5	601.5
	Capacity (Btuh/1000)	112.6	123.8	135.3	147.0	158.6	170.6
	Unit Power (kW)	18.6	18.7	18.9	19.0	19.2	19.4

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Figure 19. TTA180J - both compressors - capacity curve

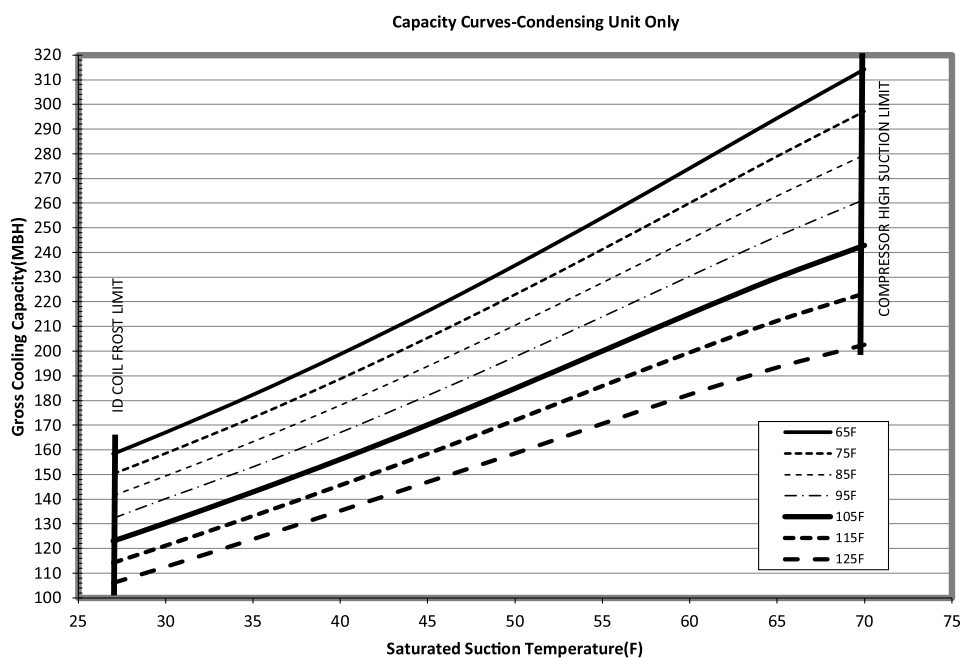
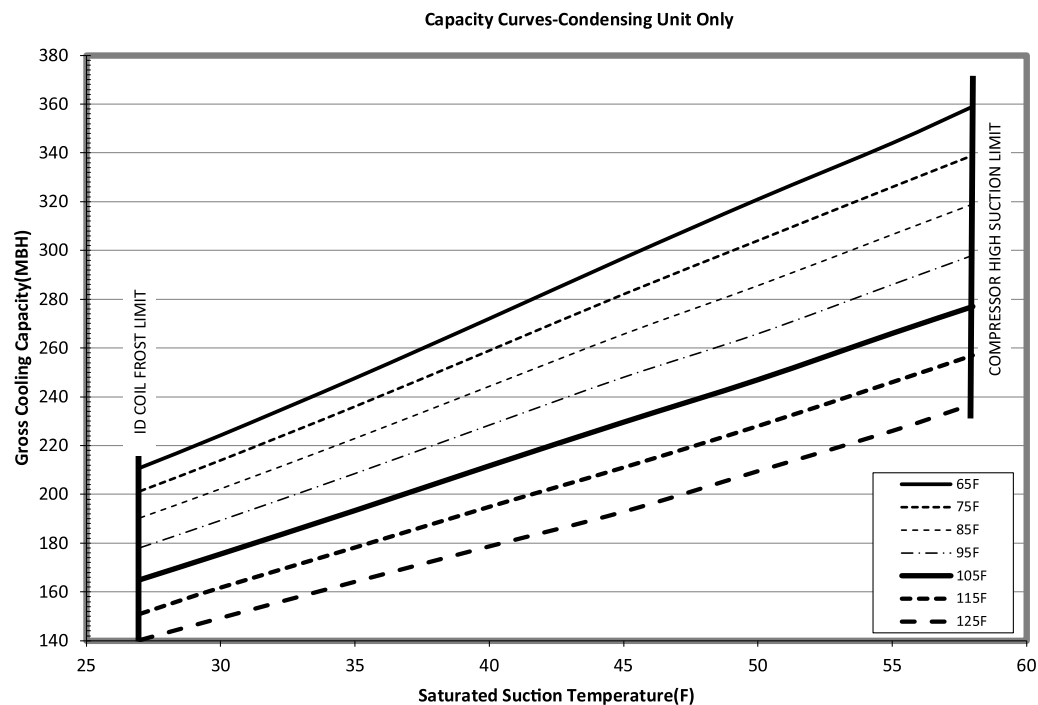


Table 44. Gross cooling capacities (MBH) 20 tons TTA240H condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	270.0	277.6	284.9	291.1	295.5	297.5
	Capacity (Btuh/1000)	224.2	247.6	272.0	296.9	321.0	344.0
	Unit Power (kW)	15.1	15.5	15.9	16.3	16.7	17.0
75	Head Press (psig)	308.7	316.4	323.6	329.6	333.6	335.0
	Capacity (Btuh/1000)	213.9	236.0	258.9	282.0	304.0	326.0
	Unit Power (kW)	16.3	16.7	17.2	17.6	17.9	18.2
85	Head Press (psig)	350.8	358.6	365.7	371.3	374.7	375.6
	Capacity (Btuh/1000)	202.3	222.9	244.3	265.7	285.6	306.5
	Unit Power (kW)	17.7	18.1	18.6	18.9	19.3	19.5
95	Head Press (psig)	397.0	404.1	410.9	416.1	418.9	419.1
	Capacity (Btuh/1000)	189.3	208.5	228.4	248.0	265.8	286.0
	Unit Power (kW)	19.4	19.7	20.1	20.5	20.8	21.0
105	Head Press (psig)	447.9	452.8	459.3	463.9	466.0	465.6
	Capacity (Btuh/1000)	175.5	193.4	211.7	229.6	247.0	266.0
	Unit Power (kW)	21.3	21.5	21.9	22.2	22.4	22.6
115	Head Press (psig)	502.7	504.9	510.8	514.7	516.1	515.7
	Capacity (Btuh/1000)	161.8	178.2	194.9	211.0	228.0	246.0
	Unit Power (kW)	23.3	23.5	23.8	24.0	24.2	24.3
125	Head Press (psig)	562.3	562.0	565.6	568.7	569.3	568.7
	Capacity (Btuh/1000)	149.3	164.2	178.7	192.9	209.5	226.0
	Unit Power (kW)	25.6	25.7	25.8	26.0	26.1	26.2

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Figure 20. TTA240H capacity curve


Performance Data

Table 45. Gross cooling capacities (MBH) one compressor - 20 tons TTA240J condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	220.3	223.5	226.9	230.3	233.5	236.2
	Capacity (Btuh/1000)	110.9	122.8	135.4	148.9	163.0	177.6
	Unit Power (kW)	7.9	8.0	8.2	8.3	8.4	8.6
75	Head Press (psig)	255.9	259.4	262.9	266.3	269.5	272.2
	Capacity (Btuh/1000)	106.5	117.9	130.0	142.8	156.3	170.1
	Unit Power (kW)	8.3	8.5	8.6	8.8	8.9	9.1
85	Head Press (psig)	295.3	298.9	302.5	305.9	309.1	311.6
	Capacity (Btuh/1000)	101.4	112.3	123.8	136.0	148.7	161.6
	Unit Power (kW)	8.9	9.0	9.2	9.3	9.5	9.6
95	Head Press (psig)	338.5	342.2	345.8	349.3	352.3	354.7
	Capacity (Btuh/1000)	95.6	105.9	116.8	128.2	140.1	151.9
	Unit Power (kW)	9.6	9.7	9.9	10.0	10.1	10.3
105	Head Press (psig)	385.8	389.5	393.1	396.4	399.3	401.4
	Capacity (Btuh/1000)	89.1	98.8	109.0	119.6	130.6	142.0
	Unit Power (kW)	10.4	10.5	10.6	10.8	10.9	11.0
115	Head Press (psig)	437.3	440.9	444.4	447.5	450.1	452.0
	Capacity (Btuh/1000)	82.1	91.1	100.5	110.4	120.4	131.0
	Unit Power (kW)	11.3	11.4	11.5	11.7	11.8	11.9
125	Head Press (psig)	493.1	496.6	499.8	502.7	504.9	506.4
	Capacity (Btuh/1000)	74.6	82.9	91.7	100.7	109.6	119.7
	Unit Power (kW)	12.3	12.4	12.5	12.6	12.7	12.8

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Figure 21. TTA240J - One compressor - capacity curves

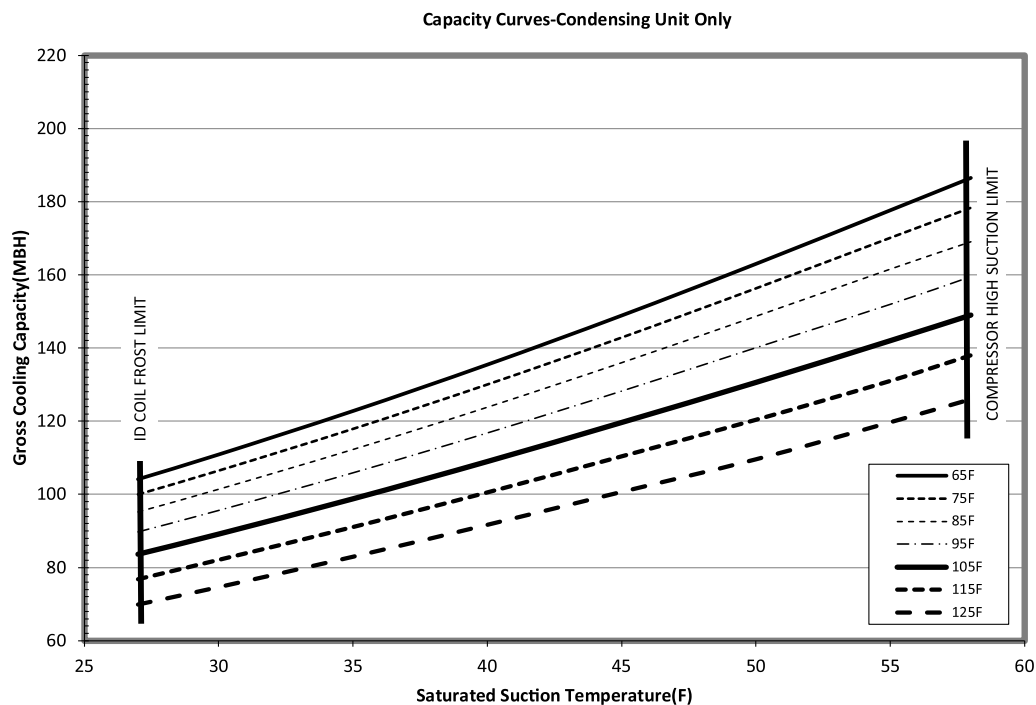
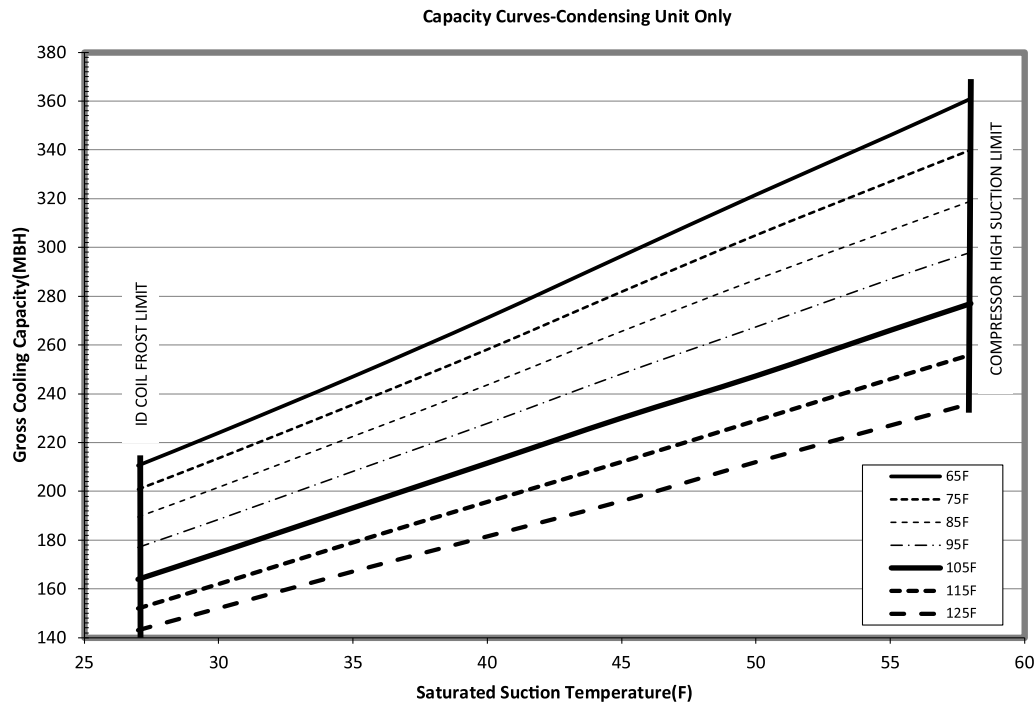


Table 46. Gross cooling capacities (MBH) both compressors - 20 tons TTA240J condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	280.8	283.4	288.5	296.3	302.4	304.9
	Capacity (Btuh/1000)	224.0	247.0	271.1	296.5	321.6	346.0
	Unit Power (kW)	15.4	15.6	16.0	16.4	16.8	17.1
75	Head Press (psig)	322.0	324.1	328.1	335.7	341.2	343.0
	Capacity (Btuh/1000)	213.6	235.6	258.2	281.8	305.0	327.0
	Unit Power (kW)	16.7	16.9	17.2	17.7	18.0	18.3
85	Head Press (psig)	367.1	368.5	370.8	378.2	383.1	383.9
	Capacity (Btuh/1000)	201.7	222.5	243.6	265.6	286.8	307.0
	Unit Power (kW)	18.2	18.4	18.6	19.1	19.4	19.6
95	Head Press (psig)	416.3	416.7	416.8	423.7	427.8	429.0
	Capacity (Btuh/1000)	188.5	208.2	227.8	248.0	267.4	287.0
	Unit Power (kW)	20.0	20.1	20.2	20.6	20.9	21.1
105	Head Press (psig)	461.0	464.0	467.4	472.3	475.5	476.5
	Capacity (Btuh/1000)	174.8	193.2	211.6	230.1	247.3	266.0
	Unit Power (kW)	21.9	22.0	22.1	22.4	22.6	22.7
115	Head Press (psig)	519.0	520.5	522.0	523.8	526.0	527.0
	Capacity (Btuh/1000)	162.0	179.0	195.7	212.1	229.0	246.0
	Unit Power (kW)	23.5	23.7	24.0	24.2	24.4	24.4
125	Head Press (psig)	570.0	573.0	575.5	578.4	579.5	581.0
	Capacity (Btuh/1000)	152.1	167.1	181.5	196.0	212.0	227.0
	Unit Power (kW)	19.8	20.0	20.1	20.2	20.3	20.4

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Figure 22. TTA240J - both compressors - capacity curves




Performance Data

Table 47. Gross cooling capacities (MBH) one compressor - 25 tons TTA300J condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	235.1	238.1	241.0	244.6	249.4	253.9
	Capacity (Btuh/1000)	134.8	148.7	163.6	179.4	196.3	214.0
	Unit Power (kW)	9.1	9.2	9.3	9.4	9.5	9.7
75	Head Press (psig)	272.3	275.4	278.3	281.8	286.7	291.2
	Capacity (Btuh/1000)	129.5	143.0	157.4	172.6	188.7	205.6
	Unit Power (kW)	9.6	9.8	9.9	10.0	10.2	10.3
85	Head Press (psig)	313.3	316.4	319.3	322.5	327.5	331.8
	Capacity (Btuh/1000)	123.4	136.3	150.1	164.6	179.9	195.8
	Unit Power (kW)	10.4	10.5	10.6	10.8	11.0	11.1
95	Head Press (psig)	358.4	361.5	364.3	367.0	371.9	376.0
	Capacity (Btuh/1000)	116.4	128.7	141.7	155.4	169.8	184.7
	Unit Power (kW)	11.2	11.4	11.5	11.6	11.8	12.0
105	Head Press (psig)	407.9	410.8	413.3	415.4	420.0	423.8
	Capacity (Btuh/1000)	108.6	120.1	132.3	145.1	158.6	172.5
	Unit Power (kW)	12.2	12.3	12.5	12.6	12.8	13.0
115	Head Press (psig)	462.1	464.6	466.7	468.3	471.9	475.2
	Capacity (Btuh/1000)	100.1	110.9	122.3	134.2	146.7	160.0
	Unit Power (kW)	13.3	13.4	13.6	13.7	13.9	14.0
125	Head Press (psig)	521.4	523.2	524.6	525.6	527.7	530.2
	Capacity (Btuh/1000)	91.6	101.6	112.2	123.2	134.6	147.0
	Unit Power (kW)	14.6	14.7	14.8	14.9	15.0	15.1

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Figure 23. TTA300J - one compressors - capacity curves

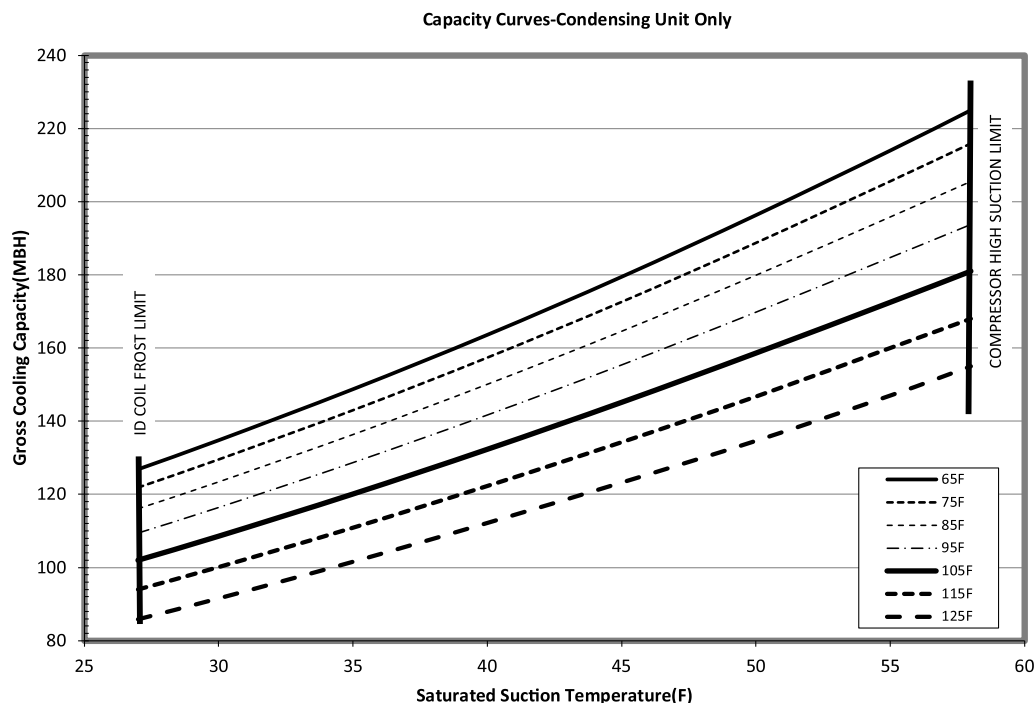
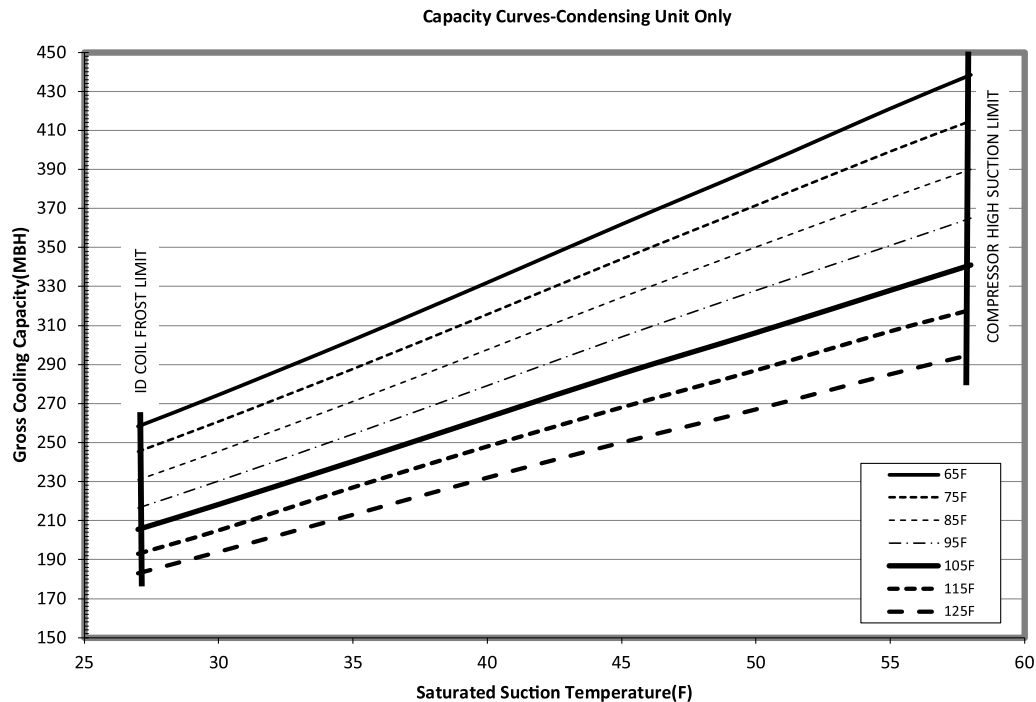


Table 48. Gross cooling capacities (MBH) both compressors - 25 tons TTA300J condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	325.4	328.1	329.9	330.7	333.0	336.6
	Capacity (Btuh/1000)	274.5	302.6	332.0	361.8	391.0	421.2
	Unit Power (kW)	19.4	19.6	19.8	20.0	20.2	20.6
75	Head Press (psig)	372.1	373.7	374.3	375.1	376.0	376.9
	Capacity (Btuh/1000)	260.8	287.7	315.7	344.0	371.5	399.2
	Unit Power (kW)	21.2	21.4	21.6	21.8	21.9	22.2
85	Head Press (psig)	417.3	420.0	420.5	422.5	423.5	424.0
	Capacity (Btuh/1000)	245.5	271.1	297.6	324.4	350.2	375.4
	Unit Power (kW)	23.3	23.5	23.6	23.7	23.7	24.0
95	Head Press (psig)	465.6	465.8	470.4	474.2	477.1	479.3
	Capacity (Btuh/1000)	230.3	254.3	279.2	304.0	327.9	351.0
	Unit Power (kW)	25.7	25.7	25.7	25.7	25.7	25.9
105	Head Press (psig)	514.2	517.0	523.6	529.2	534.1	538.3
	Capacity (Btuh/1000)	218.3	240.3	262.9	285.3	306.3	328.0
	Unit Power (kW)	27.8	27.9	27.9	28.0	28.0	28.1
115	Head Press (psig)	565.4	572.2	580.7	587.9	594.2	599.8
	Capacity (Btuh/1000)	205.0	227.0	248.0	268.0	287.0	307.0
	Unit Power (kW)	30.0	30.1	30.3	30.5	30.6	30.8
125	Head Press (psig)	619.9	633.1	644.5	653.9	661.5	667.5
	Capacity (Btuh/1000)	194.0	213.0	232.0	250.0	267.0	285.0
	Unit Power (kW)	32.2	32.4	32.6	32.8	33.0	33.2

Note: Performance data calculated at 15°F subcooling and 15°F superheat and does not include capacity loss due to refrigerant lines.

Figure 24. TTA300J - both compressors - capacity curves




Performance Data

Table 49. Evaporator fan performance — TWE061 — standard air handler

External Static Pressure (Inches of Water Gauge)																						
0.10"			0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"		1.10"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3/4 HP Standard Motor																			1.5 HP High Static Motor			
1600	—	—	738	0.33	790	0.38	840	0.44	888	0.50	936	0.56	980	0.62	1025	0.69	1070	0.76	1111	0.83	1152	0.91
1700	719	0.33	771	0.38	821	0.44	869	0.50	914	0.56	959	0.62	1003	0.68	1047	0.75	1089	0.82	1129	0.90	1170	0.98
1800	756	0.39	804	0.44	853	0.50	898	0.56	942	0.62	985	0.69	1028	0.75	1068	0.82	1109	0.89	1149	0.97	1187	1.05
1900	792	0.45	838	0.51	884	0.57	928	0.63	971	0.69	1012	0.76	1052	0.83	1092	0.90	1131	0.97	1170	1.05	1207	1.13
2000	829	0.52	873	0.58	917	0.64	959	0.71	1000	0.77	1040	0.84	1079	0.91	1117	0.98	1155	1.06	1192	1.14	1227	1.21
2100	866	0.60	908	0.66	950	0.72	991	0.79	1030	0.86	1069	0.93	1106	1.00	1144	1.08	1179	1.15	1215	1.23	1250	1.31
2200	903	0.68	944	0.74	983	0.81	1023	0.88	1061	0.95	1099	1.02	1134	1.10	1170	1.18	1206	1.26	1241	1.34	1274	1.42
2300	940	0.78	979	0.84	1017	0.90	1055	0.97	1093	1.05	1129	1.13	1164	1.21	1198	1.28	1232	1.37	1266	1.45	1299	1.53
2400	978	0.88	1015	0.94	1052	1.01	1089	1.08	1125	1.16	1160	1.24	1194	1.32	1227	1.40	1259	1.48	1292	1.57	—	—
External Static Pressure (Inches of Water Gauge)																						
1.20"			1.30"		1.40"																	
CFM	RPM	BHP	RPM	BHP	RPM	BHP																
1.5 HP High Static Motor																						
1600	1191	0.99	1229	1.07	1264	1.14																
1700	1208	1.06	1246	1.14	1281	1.22																
1800	1226	1.13	1263	1.22	1300	1.30																
1900	1245	1.21	1281	1.30	1317	1.39																
2000	1265	1.30	1300	1.39	1335	1.48																
2100	1285	1.39	1319	1.48	—	—																
2200	1308	1.50	—	—	—	—																
2300	—	—	—	—	—	—																
2400	—	—	—	—	—	—																

Notes:

1. Data includes pressure drop due to wet coil and 1" filter.
2. Fan motor heat (MBh) = 3.15 x BHP.
3. Check General Data for indoor fan motor HP availability.
4. For 380/60Hz models: Performance is limited to standard motor CFM/static range. No high static or oversized motors are available.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Important: See fan motor values in [Table 64, p. 79](#) - [Table 67, p. 82](#).

Table 50. Evaporator fan performance —TWE073 — standard air handler

External Static Pressure (Inches of Water Gauge)																							
0.10"			0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"		1.10"		
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
					1.5 HP Standard Motor														2 HP High Static Motor				
1920	—	—	—	—	569	0.30	632	0.49	690	0.54	748	0.56	804	0.59	857	0.61	909	0.63	951	1.05	997	1.35	
2040	—	—	—	—	585	0.37	646	0.54	703	0.61	760	0.66	813	0.70	865	0.73	911	1.05	959	1.16	1003	1.40	
2160	—	—	—	—	601	0.45	660	0.60	716	0.69	771	0.76	823	0.82	873	0.84	920	1.14	966	1.26	1010	1.47	
2280	—	—	—	—	616	0.53	675	0.66	729	0.77	783	0.86	833	0.94	882	0.97	928	1.23	974	1.37	1017	1.54	
2400	—	—	572	0.52	634	0.61	691	0.74	744	0.85	795	0.96	844	1.08	892	1.21	939	1.35	982	1.48	1023	1.62	
2520	—	—	587	0.55	648	0.68	703	0.80	756	0.93	806	1.05	851	1.13	899	1.28	945	1.42	989	1.57	1030	1.71	
2640	—	—	604	0.61	663	0.76	718	0.88	769	1.01	817	1.14	862	1.24	910	1.38	954	1.52	996	1.67	1036	1.80	
2760	560	0.58	621	0.67	679	0.84	732	0.96	782	1.09	829	1.23	874	1.35	920	1.49	962	1.62	1004	1.77	1043	1.91	
2880	579	0.68	639	0.74	695	0.92	746	1.05	795	1.18	840	1.32	886	1.46	930	1.59	971	1.72	1011	1.86	1050	2.02	
External Static Pressure (Inches of Water Gauge)																							
1.20"			1.30"		1.40"		1.50"		1.60"		1.70"		1.80"		1.90"		2.00"						
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP					
2 HP High Static Motor											3 HP Ultra High Static Motor												
1920	1027	1.41	1041	1.52	1039	1.61	1021	1.68	988	1.76	1227	2.04	1249	2.30	1277	2.54	1312	2.61					
2040	1036	1.48	1065	1.61	1085	1.67	1099	1.76	1186	1.93	1229	2.12	1255	2.34	1284	2.57	1317	2.66					
2160	1046	1.56	1077	1.69	1104	1.75	1158	1.92	1193	2.05	1233	2.21	1261	2.40	1290	2.60	1323	2.71					
2280	1054	1.65	1089	1.77	1130	1.92	1165	2.03	1200	2.17	1236	2.32	1267	2.48	1297	2.64	1328	2.77					
2400	1062	1.75	1101	1.89	1137	2.03	1172	2.15	1207	2.29	1241	2.44	1273	2.58	1303	2.71	1334	2.85					
2520	1069	1.86	1107	1.99	1143	2.15	1179	2.28	1213	2.42	1246	2.57	1279	2.71	1309	2.85	1340	2.99					
2640	1076	1.96	1114	2.10	1150	2.26	1186	2.40	1220	2.55	1252	2.70	1285	2.86	1316	3.01	—	—					
2760	1083	2.08	1120	2.21	1157	2.38	1193	2.53	1226	2.68	1258	2.84	1291	3.02	—	—	—	—					
2880	1089	2.18	1127	2.33	1163	2.50	1199	2.66	1233	2.81	1266	2.98	—	—	—	—	—	—					

Notes:

1. Data includes pressure drop due to wet coil and 1" filter.
2. Fan motor heat (MBh) = 3.15 x BHP.
3. Check General Data for indoor fan motor HP availability.
4. For 380/60Hz models: Performance is limited to standard motor CFM/static range. No high static or oversized motors are available.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Important: See fan motor values in [Table 64, p. 79](#) - [Table 67, p. 82](#).

Performance Data

Table 51. Evaporator fan performance - TWE073** - 2-speed VFD, SZVAV air handler**

External Static Pressure (Inches of Water Gauge)																															
0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"													
CFM	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP										
2 HP Standard Drive																															
1920	—	—	—	—	—	—	578	31	0.34	641	34	0.52	701	38	0.62	758	41	0.68	811	44	0.77	865	46	0.95	920	49	1.14	965	52	1.25	
2040	—	—	—	—	—	—	592	32	0.41	653	35	0.56	711	38	0.67	766	41	0.75	819	44	0.84	871	47	1.00	923	50	1.18	968	52	1.30	
2160	—	—	—	—	—	—	605	32	0.47	666	36	0.62	722	39	0.73	776	42	0.82	827	44	0.91	877	47	1.06	928	50	1.23	972	52	1.35	
2280	—	—	—	—	558	30	0.50	619	33	0.54	678	36	0.68	733	39	0.79	785	42	0.89	835	45	0.99	884	47	1.13	933	50	1.29	977	52	1.42
2400	—	—	—	—	572	31	0.52	634	34	0.62	691	37	0.74	744	40	0.86	795	43	0.96	844	45	1.08	892	48	1.21	939	50	1.35	982	53	1.49
2520	—	—	—	—	588	32	0.57	648	35	0.68	704	38	0.80	756	41	0.93	806	43	1.04	853	46	1.16	900	48	1.29	946	51	1.43	988	53	1.57
2640	—	—	—	—	604	32	0.62	663	36	0.76	717	39	0.88	768	41	1.00	817	44	1.13	863	46	1.25	908	49	1.38	953	51	1.51	995	53	1.66
2760	560	30	0.62	620	33	0.68	678	36	0.83	731	39	0.95	781	42	1.08	829	44	1.22	874	47	1.35	918	49	1.47	961	52	1.61	1003	54	1.76	
2880	579	31	0.68	637	34	0.75	693	37	0.91	745	40	1.04	794	43	1.17	841	45	1.31	885	47	1.45	928	50	1.57	970	52	1.71	1011	54	1.86	
External Static Pressure (Inches of Water Gauge)																															
1.10"		1.20"		1.30"		1.40"		1.50"		1.60"		1.70"		1.80"		1.90"		2.00"													
CFM	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP										
2 HP Standard Drive																															
1920	992	53	1.31	1027	55	1.41	1075	58	1.44	1100	59	1.58	1128	61	1.67	1152	62	1.75	1227	54	2.04	1241	55	2.28	1277	57	2.13	1312	58	2.24	
2040	1000	54	1.38	1036	56	1.47	1082	58	1.55	1110	60	1.69	1140	61	1.79	1167	63	1.90	1229	54	2.12	1250	55	2.30	1284	57	2.28	1317	58	2.39	
2160	1008	54	1.45	1046	56	1.56	1088	58	1.67	1120	60	1.80	1151	62	1.93	1193	53	2.06	1233	55	2.21	1258	56	2.37	1290	57	2.42	1323	59	2.55	
2280	1016	55	1.53	1054	57	1.65	1095	59	1.78	1128	61	1.92	1165	62	2.04	1200	53	2.17	1236	55	2.32	1266	56	2.46	1297	57	2.57	1328	59	2.70	
2400	1023	55	1.62	1062	57	1.75	1101	59	1.89	1137	50	2.03	1172	52	2.16	1207	53	2.30	1241	55	2.44	1273	56	2.58	1303	58	2.71	1334	59	2.85	
2520	1030	55	1.72	1069	57	1.86	1107	59	2.00	1143	51	2.14	1179	52	2.28	1213	54	2.42	1246	55	2.57	1280	57	2.72	1309	58	2.85	1340	59	3.00	
2640	1037	56	1.81	1076	58	1.96	1114	49	2.12	1150	51	2.26	1186	53	2.41	1220	54	2.55	1252	55	2.70	1285	57	2.86	1316	58	3.00	—	—	—	
2760	1043	56	1.91	1082	58	2.06	1121	50	2.23	1157	51	2.38	1193	53	2.53	1226	54	2.68	1258	56	2.84	1291	57	3.01	—	—	—	—	—	—	
2880	1050	56	2.02	1087	58	2.16	1127	50	2.34	1163	52	2.50	1199	53	2.66	1233	55	2.82	1266	56	2.98	1295	57	3.15	—	—	—	—	—	—	

Notes:

- 2-Speed VFD or SZVAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.
- Check General Data for indoor fan motor HP availability. For 380/60Hz models: Performance is limited to standard motor CFM/static range. No high static or oversized motors are available.

Table 52. Evaporator fan performance — TWE090 — standard air handler

External Static Pressure (Inches of Water Gauge)																						
0.10"			0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"		1.10"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1.5 HP Standard Motor															2 HP High Static Motor							
2400	—	—	572	0.52	634	0.62	691	0.74	744	0.85	795	0.96	844	1.08	892	1.21	939	1.35	982	1.49	1023	1.62
2550	—	—	592	0.59	652	0.70	707	0.82	759	0.95	809	1.06	856	1.18	902	1.31	947	1.45	990	1.59	1032	1.74
2700	—	—	612	0.67	670	0.79	724	0.91	774	1.05	822	1.18	868	1.29	913	1.42	957	1.56	999	1.71	1040	1.86
2850	575	0.68	633	0.73	689	0.89	741	1.01	790	1.15	837	1.29	882	1.42	925	1.55	967	1.68	1008	1.83	1048	1.99
3000	599	0.76	654	0.82	709	0.99	760	1.13	807	1.26	853	1.41	896	1.56	939	1.69	980	1.82	1020	1.97	1058	2.12
3150	623	0.85	675	0.93	729	1.11	778	1.25	825	1.39	869	1.54	911	1.70	953	1.85	992	1.98	1031	2.12	1069	2.27
3300	647	0.95	697	1.09	749	1.22	797	1.38	842	1.52	886	1.67	927	1.83	967	2.00	1007	2.15	1045	2.30	1082	2.45
3450	673	1.08	724	1.26	770	1.32	816	1.52	861	1.67	903	1.82	943	1.98	983	2.16	1020	2.33	1058	2.48	1094	2.63
3600	698	1.21	746	1.43	790	1.43	836	1.67	880	1.83	922	1.98	961	2.14	999	2.32	1037	2.51	1073	2.68	1107	2.84
External Static Pressure (Inches of Water Gauge)																						
1.20"			1.30"		1.40"		1.50"		1.60"		1.70"		1.80"		1.90"		2.00"					
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP				
2 HP High Static Motor			3 HP Ultra High Static Motor																			
2400	1062	1.75	1101	1.89	1137	2.03	1172	2.16	1207	2.30	1241	2.44	1273	2.58	1303	2.71	1334	2.85				
2550	1071	1.88	1109	2.03	1145	2.17	1181	2.32	1215	2.46	1248	2.61	1281	2.75	1311	2.89	1341	3.04				
2700	1079	2.01	1117	2.17	1154	2.32	1189	2.47	1223	2.62	1255	2.77	1288	2.93	—	—	—	—				
2850	1087	2.14	1126	2.31	1161	2.47	1198	2.63	1232	2.79	1264	2.95	—	—	—	—	—	—				
3000	1096	2.29	1135	2.46	1171	2.63	1206	2.80	1239	2.96	—	—	—	—	—	—	—	—				
3150	1105	2.43	1142	2.60	1179	2.79	1214	2.96	—	—	—	—	—	—	—	—	—	—				
3300	1118	2.61	1154	2.78	1187	2.95	—	—	—	—	—	—	—	—	—	—	—	—				
3450	1130	2.79	1164	2.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
3600	1144	3.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				

Notes:

1. Data includes pressure drop due to wet coil and 1" filter.
2. Fan motor heat (MBh) = 3.15 x BHP.
3. Check General Data for indoor fan motor HP availability.
4. For 380/60Hz models: Performance is limited to standard motor CFM/static range. No high static or oversized motors are available.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Important: See fan motor values in [Table 64, p. 79](#) - [Table 67, p. 82](#).

Performance Data

Table 53. Evaporator fan performance - TWE090** - 2-speed VFD, SZVAV air handler**

		External Static Pressure (Inches of Water Gauge)															
		0.10"				0.20"				0.30"				0.40"			
CFM	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz
		2 HP Standard Drive															
2400	—	—	—	572	31	0.52	634	34	0.62	691	37	0.74	744	40	0.85	795	43
2550	—	—	—	592	32	0.59	652	35	0.70	707	38	0.82	759	41	0.95	809	43
2700	—	—	—	612	33	0.67	670	36	0.79	724	39	0.91	774	42	1.05	822	44
2850	575	31	0.68	633	34	0.73	689	37	0.89	741	40	1.01	790	42	1.15	837	45
3000	599	32	0.76	654	35	0.82	709	38	0.99	760	41	1.13	807	43	1.26	853	46
3150	623	33	0.85	675	36	0.93	729	39	1.11	778	42	1.25	825	44	1.39	869	47
3300	647	35	0.95	697	37	1.09	749	40	1.22	797	43	1.38	842	45	1.52	886	48
3450	673	36	1.08	724	39	1.26	770	41	1.32	816	44	1.52	861	46	1.67	903	48
3600	698	37	1.21	746	40	1.43	790	42	1.43	836	45	1.67	880	47	1.83	922	49
		3 HP High Static Drive															
2400	1023	55	1.62	1062	57	1.75	1101	59	1.89	1137	50	2.03	1172	52	2.16	1207	53
2550	1032	55	1.74	1071	57	1.88	1109	60	2.03	1145	51	2.17	1181	52	2.32	1215	54
2700	1040	56	1.86	1079	58	2.01	1117	49	2.17	1154	51	2.32	1189	53	2.47	1223	54
2850	1048	56	1.99	1087	48	2.14	1126	50	2.31	1161	51	2.47	1198	53	2.63	1232	55
3000	1058	47	2.12	1096	49	2.29	1135	50	2.46	1171	52	2.63	1206	53	2.80	1239	55
3150	1069	47	2.27	1105	49	2.43	1142	51	2.60	1179	52	2.79	1214	54	2.96	—	—
3300	1082	48	2.45	1118	50	2.61	1154	51	2.78	1187	53	2.95	—	—	—	—	—
3450	1094	48	2.63	1130	50	2.79	1164	52	2.96	—	—	—	—	—	—	—	—
3600	1107	49	2.84	1144	51	3.00	—	—	—	—	—	—	—	—	—	—	—

Notes:

- 2-Speed VFD or SZVAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.
- Check General Data for indoor fan motor HP availability. For 380/60Hz models: Performance is limited to standard motor CFM/static range. No high static or oversized motors are available.

Table 54. Evaporator fan performance — TWE120 — standard air handler

External Static Pressure (Inches of Water Gauge)																						
	0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"		1.10"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2 HP Standard Motor																					3 HP High Static Motor	
3200	—	—	—	—	588	0.87	625	0.95	658	1.03	691	1.13	722	1.22	753	1.32	783	1.40	812	1.48	839	1.58
3400	—	—	—	—	611	1.01	646	1.09	679	1.18	711	1.27	742	1.38	771	1.48	799	1.57	828	1.67	854	1.75
3600	—	—	598	1.04	634	1.16	668	1.26	700	1.34	731	1.44	761	1.54	789	1.65	817	1.76	844	1.86	871	1.96
3800	588	1.17	624	1.24	658	1.29	691	1.43	722	1.53	752	1.62	781	1.72	809	1.83	835	1.95	862	2.07	887	2.18
4000	616	1.34	651	1.47	682	1.45	714	1.63	745	1.73	774	1.83	801	1.93	829	2.04	855	2.16	880	2.28	905	2.40
4200	643	1.52	677	1.70	706	1.65	738	1.81	767	1.95	795	2.05	823	2.15	849	2.26	874	2.38	899	2.50	923	2.63
4400	670	1.74	703	1.94	731	1.90	761	2.00	790	2.19	818	2.29	844	2.40	870	2.51	895	2.63	919	2.75	942	2.88
4600	698	1.97	729	2.19	756	2.20	785	2.21	814	2.44	840	2.56	866	2.67	891	2.78	915	2.90	—	—	—	—
4800	726	2.23	755	2.46	785	2.53	809	2.47	837	2.65	863	2.85	889	2.96	—	—	—	—	—	—	—	—
External Static Pressure (Inches of Water Gauge)																						
	1.20"		1.30"		1.40"		1.50"		1.60"		1.70"		1.80"		1.90"		2.00"		2.10"		2.20"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3 HP High Static Motor											3 HP High Static Motor w/Field Supplied Sheave & Belt											
3200	866	1.67	893	1.77	920	1.88	946	1.99	971	2.10	996	2.21	1019	2.32	1044	2.43	1066	2.54	1088	2.64	1109	2.75
3400	881	1.85	906	1.95	931	2.05	957	2.16	982	2.28	1007	2.40	1030	2.51	1054	2.63	1076	2.74	1098	2.86	1120	2.97
3600	896	2.05	922	2.15	946	2.25	970	2.36	993	2.47	1018	2.59	1042	2.72	1065	2.84	1087	2.96	—	—	—	—
3800	912	2.28	937	2.38	961	2.48	985	2.58	1008	2.70	1030	2.81	1053	2.93	—	—	—	—	—	—	—	—
4000	930	2.52	953	2.62	977	2.73	1000	2.83	1022	2.94	—	—	—	—	—	—	—	—	—	—	—	—
4200	947	2.76	970	2.89	993	3.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Notes:

1. Data includes pressure drop due to wet coil and 1" filter.
2. Fan motor heat (MBh) = 3.15 x BHP.
3. Check General Data for indoor fan motor HP availability.
4. For 380/60Hz models: Performance is limited to standard motor CFM/static range. No high static or oversized motors are available.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Important: See fan motor values in [Table 64, p. 79](#) - [Table 67, p. 82](#).

Performance Data

Table 55. Evaporator fan performance - TWE120** - 2-speed VFD, SZVAV air handler**

External Static Pressure (Inches of Water Gauge)																														
0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"												
CFM	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP									
2 HP Standard Drive																														
3200	—	—	—	—	—	588	38	0.87	625	41	0.95	658	43	1.03	691	45	1.13	722	47	1.22	753	49	1.32	783	51	1.40	812	53	1.48	
3400	—	—	—	—	—	611	40	1.01	646	42	1.09	679	44	1.18	711	47	1.27	742	49	1.38	771	50	1.48	799	52	1.57	828	44	1.67	
3600	—	—	—	598	39	1.04	634	41	1.16	668	44	1.26	700	46	1.34	731	48	1.44	761	50	1.54	789	52	1.65	817	53	1.76	844	45	1.86
3800	588	38	1.17	624	41	1.24	658	43	1.29	691	45	1.43	722	47	1.53	752	49	1.62	781	51	1.72	809	53	1.83	835	44	1.95	862	46	2.07
4000	616	40	1.34	651	43	1.47	682	45	1.45	714	47	1.63	745	49	1.73	774	51	1.83	801	52	1.93	829	44	2.04	855	45	2.16	880	47	2.28
4200	643	42	1.52	677	44	1.70	706	46	1.65	738	48	1.81	767	50	1.95	795	42	2.05	823	44	2.15	849	45	2.26	874	46	2.38	899	48	2.50
4400	670	44	1.74	703	46	1.94	731	48	1.90	761	50	2.00	790	42	2.19	818	43	2.29	844	45	2.40	870	46	2.51	895	47	2.63	919	49	2.75
4600	698	46	1.97	729	39	2.19	756	40	2.20	785	42	2.21	814	43	2.44	840	44	2.56	866	46	2.67	891	47	2.78	915	48	2.90	—	—	—
4800	726	38	2.23	755	40	2.46	785	42	2.53	809	43	2.47	837	44	2.65	863	46	2.85	889	47	2.96	—	—	—	—	—	—	—	—	—
External Static Pressure (Inches of Water Gauge)																														
1.10"		1.20"		1.30"		1.40"		1.50"		1.60"		1.70"		1.80"		1.90"		2.00"												
CFM	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP									
3 HP High Static Drive																														
3200	839	44	1.58	866	46	1.67	893	47	1.77	920	49	1.88	946	50	1.99	971	51	2.10	996	53	2.21	1019	54	2.32	1044	55	2.43	1066	56	2.54
3400	854	45	1.75	881	47	1.85	906	48	1.95	931	49	2.05	957	51	2.16	982	52	2.28	1007	53	2.40	1030	54	2.51	1054	56	2.63	1076	57	2.74
3600	871	46	1.96	896	47	2.05	922	49	2.15	946	50	2.25	970	51	2.36	993	53	2.47	1018	54	2.59	1042	55	2.72	1065	56	2.84	1087	58	2.96
3800	887	47	2.18	912	48	2.28	937	50	2.38	961	51	2.48	985	52	2.58	1008	53	2.70	1030	54	2.81	1053	56	2.93	—	—	—	—	—	—
4000	905	48	2.40	930	49	2.52	953	50	2.62	977	52	2.73	1000	53	2.83	1022	54	2.94	—	—	—	—	—	—	—	—	—	—	—	—
4200	923	49	2.63	947	50	2.76	970	51	2.89	993	53	3.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4400	942	50	2.88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
External Static Pressure (Inches of Water Gauge)																														
2.10"		2.20"																												
CFM	RPM	Hz	BHP	RPM	Hz	BHP																								
3 HP High Static Drive																														
3200	1088	58	2.64	1109	59	2.75																								
3400	1098	58	2.86	1120	59	2.97																								
3600	—	—	—	—	—	—																								
3800	—	—	—	—	—	—																								
4000	—	—	—	—	—	—																								
4200	—	—	—	—	—	—																								
4400	—	—	—	—	—	—																								
4600	—	—	—	—	—	—																								
4800	—	—	—	—	—	—																								

Notes:

1. 2-Speed VFD or SZVAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.
2. Check General Data for indoor fan motor HP availability. For 380/60Hz models: Performance is limited to standard motor CFM/static range. No high static or oversized motors are available.

Table 56. Evaporator fan performance — TWE150 — standard air handler

External Static Pressure (Inches of Water Gauge)																						
0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"		1.10"		
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP		
							2 HP Standard Motor								2 HP Standard Motor w/Field Supplied Sheave & Belt							
4000	—	—	—	—	—	—	614	0.85	658	0.98	698	1.12	728	1.22	756	1.32	786	1.43	817	1.56	849	1.70
4200	—	—	—	—	581	0.80	627	0.93	669	1.05	710	1.21	744	1.34	772	1.44	799	1.55	827	1.66	858	1.80
4400	—	—	—	—	595	0.88	640	1.02	682	1.15	722	1.29	758	1.45	789	1.58	814	1.68	840	1.79	867	1.92
4600	—	—	563	0.82	609	0.96	653	1.11	695	1.25	732	1.38	771	1.55	804	1.71	831	1.83	856	1.94	880	2.05
4800	—	—	579	0.90	624	1.05	667	1.20	707	1.35	745	1.50	783	1.66	817	1.83	847	1.98	872	2.10	896	2.22
5000	—	—	595	0.99	639	1.15	681	1.31	721	1.47	759	1.62	794	1.77	828	1.94	861	2.12	888	2.27	911	2.39
5200	568	0.95	612	1.09	655	1.25	695	1.42	735	1.58	771	1.74	806	1.90	840	2.06	873	2.25	903	2.43	927	2.57
5400	587	1.05	628	1.20	670	1.36	710	1.53	748	1.71	784	1.88	819	2.04	852	2.20	885	2.38	915	2.58	943	2.76
5600	605	1.16	645	1.31	686	1.48	724	1.66	762	1.83	798	2.01	832	2.19	864	2.35	896	2.52	928	2.73	956	2.92
5800	624	1.28	662	1.43	702	1.60	740	1.79	777	1.97	812	2.15	845	2.34	877	2.51	908	2.68	938	2.87	969	3.09
6000	643	1.40	679	1.56	719	1.74	755	1.92	791	2.12	826	2.30	858	2.49	891	2.68	920	2.86	950	3.03	980	3.25
External Static Pressure (Inches of Water Gauge)																						
1.20"		1.30"		1.40"		1.50"		1.60"		1.70"		1.80"		1.90"		2.00"		2.10"		2.20"		
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP		
3 HP High Static Motor											5 HP Ultra High Static Motor											
4000	882	1.85	915	2.02	947	2.19	976	2.36	1002	2.52	1028	2.69	1053	2.86	1078	3.03	1101	3.20	1126	3.38	1148	3.54
4200	888	1.95	919	2.11	950	2.28	980	2.45	1010	2.64	1036	2.81	1061	2.98	1085	3.15	1109	3.33	1132	3.51	1155	3.69
4400	896	2.06	925	2.21	955	2.38	985	2.55	1013	2.73	1044	2.93	1070	3.11	1094	3.30	1117	3.47	1141	3.66	1163	3.84
4600	906	2.19	934	2.33	961	2.49	989	2.66	1018	2.84	1045	3.02	1074	3.22	1101	3.43	1125	3.61	1150	3.81	1172	4.00
4800	918	2.33	944	2.47	970	2.63	996	2.79	1023	2.96	1051	3.15	1078	3.34	1105	3.55	1131	3.74	1157	3.96	1179	4.15
5000	934	2.51	956	2.64	980	2.78	1005	2.93	1031	3.11	1057	3.28	1083	3.48	1109	3.67	1135	3.87	1161	4.09	1186	4.30
5200	950	2.71	972	2.83	993	2.95	1016	3.11	1040	3.27	1064	3.43	1090	3.62	1115	3.82	1139	4.01	1164	4.21	1189	4.44
5400	966	2.90	989	3.04	1008	3.17	1029	3.30	1051	3.45	1075	3.62	1098	3.79	1122	3.98	1146	4.17	1170	4.38	1193	4.58
5600	982	3.11	1004	3.25	1025	3.39	1045	3.52	1065	3.66	1085	3.81	1108	3.98	1130	4.16	1153	4.35	1176	4.55	1198	4.74
5800	996	3.29	1020	3.47	1041	3.62	1062	3.77	1081	3.91	1099	4.04	1120	4.20	1141	4.37	1162	4.55	1184	4.74	1206	4.94
6000	1008	3.46	1034	3.67	1057	3.86	1077	4.01	1097	4.16	1115	4.30	1134	4.45	1153	4.60	1174	4.78	1194	4.96	—	—
External Static Pressure (Inches of Water Gauge)																						
2.30"		2.40"																				
CFM	RPM	BHP	RPM	BHP																		
5 HP Ultra High Static Motor																						
4000	1170	3.73	1191	3.89																		
4200	1179	3.88	1200	4.06																		
4400	1186	4.03	1208	4.23																		
4600	1193	4.18	1215	4.37																		
4800	1202	4.36	—	—																		
5000	1210	4.52	—	—																		
5200	1214	4.66	—	—																		
5400	1218	4.81	—	—																		
5600	1222	4.97	—	—																		
5800	—	—	—	—																		
6000	—	—	—	—																		

Notes:

1. Data includes pressure drop due to wet coil and 1" filter.
2. Fan motor heat (MBh) = 3.15 x BHP.
3. Check General Data for indoor fan motor HP availability.
4. For 380/60Hz models: Performance is limited to standard motor CFM/static range. No high static or oversized motors are available.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Important: See fan motor values in [Table 64, p. 79](#) - [Table 67, p. 82](#).

External Static Pressure (Inches of Water Gauge)																							
0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"					
CFM	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP		
4000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
4200	—	—	—	—	—	—	581	38	0.80	627	41	0.93	669	44	1.05	710	46	1.21	744	49	1.34	772	
4400	—	—	—	—	—	—	595	39	0.88	640	42	1.02	682	45	1.15	722	47	1.29	758	50	1.45	789	
4600	—	—	—	—	—	—	609	40	0.96	653	43	1.11	695	45	1.25	732	48	1.38	771	50	1.55	804	
4800	—	—	—	—	—	—	579	38	0.90	624	41	1.05	667	44	1.20	707	46	1.35	745	49	1.50	783	
5000	—	—	—	—	—	—	595	39	0.99	639	42	1.15	681	45	1.31	721	47	1.47	759	50	1.62	794	
5200	—	—	—	—	—	—	612	40	1.09	655	43	1.25	695	45	1.42	735	48	1.58	771	50	1.74	806	
5400	587	38	1.05	628	41	1.20	670	44	1.36	710	46	1.53	748	49	1.71	784	51	1.88	819	54	2.04	852	
5600	605	40	1.16	645	42	1.31	686	45	1.48	724	47	1.66	762	50	1.83	798	52	2.01	832	42	2.19	864	
5800	624	41	1.28	662	43	1.43	702	46	1.60	740	48	1.79	777	51	1.97	812	53	2.15	845	43	2.34	877	
6000	643	42	1.40	679	44	1.56	719	47	1.74	755	49	1.92	791	52	2.12	826	42	2.30	858	43	2.49	891	
External Static Pressure (Inches of Water Gauge)																							
1.10"		1.20"		1.30"		1.40"		1.50"		1.60"		1.70"		1.80"		1.90"		2.00"					
CFM	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP		
4000	849	43	1.70	882	44	1.85	915	46	2.02	947	48	2.19	976	49	2.36	1002	50	2.52	1028	52	2.69	1053	
4200	858	43	1.80	888	45	1.95	919	46	2.11	950	48	2.28	980	49	2.45	1010	51	2.64	1036	52	2.81	1061	
4400	867	44	1.92	896	45	2.06	925	47	2.21	955	48	2.38	985	50	2.55	1013	51	2.73	1044	53	2.93	1070	
4600	880	44	2.05	906	46	2.19	934	47	2.33	961	48	2.49	989	50	2.66	1018	51	2.84	1045	53	3.02	1074	
4800	896	45	2.22	918	46	2.33	944	48	2.47	970	49	2.63	996	50	2.79	1023	52	2.96	1051	53	3.15	1078	
5000	911	46	2.39	934	47	2.51	956	48	2.64	980	49	2.78	1005	51	2.93	1031	52	3.11	1057	53	3.28	1083	
5200	927	47	2.57	950	48	2.71	972	49	2.83	993	50	2.95	1016	51	3.11	1040	52	3.27	1064	54	3.43	1090	
5400	943	48	2.76	966	49	2.90	989	50	3.04	1008	51	3.17	1029	52	3.30	1051	53	3.45	1075	54	3.62	1098	
5600	956	48	2.9																				

- 2-Speed VFD or SZVAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.
1. Check General Data for indoor fan motor HP availability. For 380/60Hz models: Performance is limited to standard motor CFM/static range. No high static or oversized models.
2. Check General Data for indoor fan motor HP availability. For 380/60Hz models: Performance is limited to standard motor CFM/static range. No high static or oversized models.

Table 58. Evaporator fan performance — TWE180 — standard air handler

External Static Pressure (Inches of Water Gauge)																						
	0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"		1.10"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	3 HP Standard Motor w/ Field Supplied Sheave & Belt						3 HP Standard Motor															5 HP High Static Motor
4800	492	0.80	539	0.94	583	1.08	624	1.21	663	1.34	701	1.49	738	1.66	774	1.82	807	1.98	839	2.14	869	2.30
5100	517	0.95	562	1.08	604	1.24	644	1.38	681	1.52	718	1.67	753	1.83	788	2.00	821	2.18	853	2.35	883	2.52
5400	542	1.11	585	1.25	625	1.41	663	1.57	700	1.71	735	1.86	769	2.02	802	2.20	835	2.38	866	2.57	897	2.75
5700	567	1.29	609	1.43	647	1.60	684	1.78	719	1.93	753	2.08	786	2.24	818	2.41	849	2.60	881	2.80	910	2.99
6000	593	1.48	632	1.64	669	1.80	705	1.99	739	2.16	773	2.32	804	2.48	835	2.66	865	2.84	895	3.04	924	3.25
6300	619	1.70	656	1.86	692	2.03	726	2.22	760	2.42	792	2.59	823	2.75	853	2.93	882	3.12	910	3.31	939	3.52
6600	644	1.94	681	2.11	715	2.28	748	2.48	781	2.69	811	2.87	841	3.04	871	3.22	899	3.40	927	3.60	954	3.81
6900	670	2.20	705	2.37	739	2.55	771	2.75	802	2.97	832	3.18	861	3.36	890	3.54	917	3.72	944	3.92	971	4.13
7200	696	2.49	730	2.66	763	2.85	794	3.05	824	3.27	853	3.49	881	3.70	909	3.89	936	4.08	963	4.28	988	4.48
External Static Pressure (Inches of Water Gauge)																						
	1.20"		1.30"		1.40"		1.50"		1.60"		1.70"		1.80"		1.90"		2.00"		2.10"		2.20"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	5 HP High Static Motor											5 HP High Static Motor w/ Field Supplied Sheave & Belt										
4800	897	2.46	926	2.62	953	2.77	979	2.93	1004	3.08	1029	3.24	1051	3.38	1075	3.54	1097	3.69	1120	3.84	1141	3.99
5100	911	2.69	940	2.86	965	3.02	992	3.19	1017	3.36	1042	3.52	1065	3.68	1088	3.84	1111	4.02	1132	4.17	1154	4.33
5400	925	2.93	953	3.11	980	3.29	1005	3.47	1031	3.65	1055	3.82	1078	3.99	1102	4.17	1123	4.34	1146	4.52	1167	4.69
5700	940	3.19	966	3.38	993	3.57	1019	3.75	1044	3.94	1068	4.13	1092	4.32	1114	4.50	1137	4.69	1159	4.87	1180	5.06
6000	953	3.45	980	3.65	1008	3.86	1033	4.06	1057	4.26	1081	4.45	1105	4.66	1129	4.86	1150	5.05	—	—	—	—
6300	967	3.73	995	3.95	1022	4.17	1046	4.37	1071	4.59	1095	4.79	1119	5.01	—	—	—	—	—	—	—	—
6600	981	4.02	1009	4.25	1035	4.48	1061	4.71	1085	4.93	—	—	—	—	—	—	—	—	—	—	—	—
6900	998	4.35	1022	4.57	1049	4.81	1074	5.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7200	1014	4.70	1039	4.93	1063	5.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
External Static Pressure (Inches of Water Gauge)																						
	2.30"		2.40"																			
CFM	RPM	BHP	RPM	BHP																		
	5 HP High Static Motor w/ Field Supplied Sheave & Belt																					
4800	1162	4.14	1183	4.30																		
5100	1175	4.49	1196	4.66																		
5400	1188	4.86	1209	5.04																		
5700	—	—	—	—																		
6000	—	—	—	—																		
6300	—	—	—	—																		
6600	—	—	—	—																		
6900	—	—	—	—																		
7200	—	—	—	—																		

Notes:

1. Data includes pressure drop due to wet coil and 1" filter.
2. Fan motor heat (MBh) = 3.15 x BHP.
3. Check General Data for indoor fan motor HP availability.
4. For 380/60Hz models: Performance is limited to standard motor CFM/static range. No high static or oversized motors are available.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Important: See fan motor values in [Table 64, p. 79](#) - [Table 67, p. 82](#).



Performance Data

Table 59. Evaporator fan performance - TWE180**** - 2-speed VFD, SZVAV air handler

External Static Pressure (Inches of Water Gauge)																											
0.10"			0.20"			0.30"			0.40"			0.50"			0.60"			0.70"			0.80"			0.90"			
CFM	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP			
3 HP Standard Drive																											
4800	—	—	—	539	38	0.94	583	41	1.08	624	44	1.21	663	47	1.34	701	49	1.49	738	52	1.66	774	54	1.82	807	57	1.98
5100	—	—	—	562	39	1.08	604	42	1.24	644	45	1.38	681	48	1.52	718	50	1.67	753	53	1.83	788	55	2.00	821	58	2.18
5400	542	38	1.11	585	41	1.25	625	44	1.41	663	47	1.57	700	49	1.71	735	52	1.86	769	54	2.02	802	56	2.20	835	59	2.38
5700	567	40	1.29	609	43	1.43	647	45	1.60	684	48	1.78	719	51	1.93	753	53	2.08	786	55	2.24	818	57	2.41	849	60	2.60
6000	593	42	1.48	632	44	1.64	669	47	1.80	705	50	1.99	739	52	2.16	773	54	2.32	804	56	2.48	835	59	2.66	865	62	2.84
6300	619	43	1.70	656	46	1.86	692	49	2.03	726	51	2.22	760	53	2.42	792	56	2.59	823	58	2.75	853	60	2.93	882	63	3.12
6600	644	45	1.94	681	48	2.11	715	50	2.28	748	53	2.48	781	55	2.69	811	57	2.87	841	59	3.04	871	61	3.22	899	64	3.40
6900	670	47	2.20	705	50	2.37	739	52	2.55	771	54	2.75	802	56	2.97	832	58	3.18	861	60	3.36	890	62	3.54	917	65	3.72
7200	696	49	2.49	730	51	2.66	763	54	2.85	794	56	3.05	824	58	3.27	853	60	3.49	881	62	3.70	909	64	3.89	936	67	4.08
External Static Pressure (Inches of Water Gauge)																											
1.00"			1.10"			1.20"			1.30"			1.40"			1.50"			1.60"			1.70"			1.80"			
CFM	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP			
5 HP High Static Drive																											
4800	839	59	2.14	869	44	2.30	897	45	2.46	926	47	2.62	953	48	2.77	979	49	2.93	1004	51	3.08	1029	52	3.24	1051	53	3.38
5100	853	60	2.35	883	44	2.52	911	46	2.69	940	47	2.86	965	49	3.02	992	50	3.19	1017	51	3.36	1042	52	3.52	1065	54	3.68
5400	866	44	2.57	897	45	2.75	925	47	2.93	953	48	3.11	980	49	3.29	1005	51	3.47	1031	52	3.65	1055	53	3.82	1078	54	3.99
5700	881	44	2.80	910	46	2.99	940	47	3.19	966	49	3.38	993	50	3.57	1019	51	3.75	1044	53	3.94	1068	54	4.13	1092	55	4.32
6000	895	45	3.04	924	47	3.25	953	48	3.45	980	49	3.65	1008	51	3.86	1033	52	4.06	1057	53	4.26	1081	54	4.45	1105	56	4.66
6300	910	46	3.31	939	47	3.52	967	49	3.73	995	50	3.95	1022	51	4.17	1046	53	4.37	1071	54	4.59	1095	55	4.79	1119	56	5.01
6600	927	47	3.60	954	48	3.81	981	49	4.02	1009	51	4.25	1035	52	4.48	1061	53	4.71	1085	55	4.93	—	—	—	—	—	
6900	944	48	3.92	971	49	4.13	998	50	4.35	1022	51	4.57	1049	53	4.81	1074	54	5.04	—	—	—	—	—	—	—	—	
7200	963	49	4.28	988	50	4.48	1014	51	4.70	1039	52	4.93	1063	54	5.15	—	—	—	—	—	—	—	—	—	—	—	
External Static Pressure (Inches of Water Gauge)																											
1.90"			2.00"			2.10"			2.20"			2.30"			2.40"												
CFM	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP						
5 HP High Static Drive																											
4800	1075	54	3.54	1097	55	3.69	1120	56	3.84	1141	57	3.99	1162	59	4.14	1183	60	4.30	—	—	—	—	—	—	—	—	
5100	1088	55	3.84	1111	56	4.02	1132	57	4.17	1154	58	4.33	1175	59	4.49	1196	60	4.66	—	—	—	—	—	—	—	—	
5400	1102	56	4.17	1123	57	4.34	1146	58	4.52	1167	59	4.69	1188	60	4.86	—	—	—	—	—	—	—	—	—	—	—	
5700	1114	56	4.50	1137	57	4.69	1159	58	4.87	1180	59	5.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6000	1129	57	4.86	1150	58	5.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
6300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
7200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

Notes:

- 2-Speed VFD or SZVAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.
- Check General Data for indoor fan motor HP availability. For 380/60Hz models: Performance is limited to standard motor CFM/static range. No high static or oversized motors are available.

Table 60. Evaporator fan performance — TWE240 — standard air handler

External Static Pressure (Inches of Water Gauge)																						
0.10"			0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"			
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP		
3 HP Low Static Motor										5 HP Standard Motor												
6400	—	—	—	—	652	1.55	693	1.70	732	1.86	769	2.02	802	2.17	833	2.33	867	2.53	901	2.75		
6800	—	—	—	—	677	1.79	717	1.96	754	2.12	791	2.29	824	2.46	855	2.62	885	2.79	916	3.00		
7200	—	—	661	1.87	703	2.05	742	2.24	778	2.42	812	2.59	846	2.77	878	2.95	906	3.11	934	3.29		
7600	647	1.98	688	2.15	729	2.34	766	2.55	802	2.74	835	2.92	868	3.10	900	3.29	929	3.48	956	3.66		
8000	677	2.29	716	2.47	755	2.67	791	2.88	826	3.09	858	3.28	889	3.47	921	3.67	951	3.87	979	4.06		
8400	707	2.63	744	2.82	781	3.02	817	3.24	851	3.46	883	3.68	913	3.87	942	4.07	972	4.28	1000	4.49		
8800	737	3.01	773	3.21	808	3.41	843	3.63	876	3.87	907	4.10	937	4.31	965	4.52	994	4.73	1022	4.95		
9200	767	3.41	802	3.63	836	3.84	869	4.06	901	4.30	932	4.55	961	4.79	989	5.00	1016	5.21	1044	5.44		
9600	797	3.86	831	4.08	863	4.30	896	4.53	927	4.78	957	5.03	986	5.29	1013	5.52	1040	5.75	1065	5.97		
External Static Pressure (Inches of Water Gauge)																						
1.10"			1.20"		1.30"		1.40"		1.50"		1.60"		1.70"		1.80"		1.90"		2.00"			
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP		
5 HP Standard Motor					5 HP High Standard Motor w/Field Supplied								7.5 HP Ultra High Static Motor				7.5 HP Ultra High Static Motor w/Field Supplied Fan Sheave & Belt					
					Sheaves																	
6400	934	2.95	965	3.16	996	3.37	1028	3.58	1059	3.81	1091	4.03	1120	4.25	1148	4.46	1177	4.69	1204	4.90		
6800	948	3.22	979	3.45	1008	3.66	1039	3.89	1069	4.12	1099	4.35	1128	4.58	1156	4.81	1185	5.05	1212	5.28		
7200	964	3.51	994	3.75	1024	3.99	1052	4.22	1079	4.45	1108	4.69	1136	4.93	1166	5.19	1193	5.43	1219	5.67		
7600	982	3.85	1011	4.07	1039	4.31	1066	4.56	1095	4.82	1121	5.06	1148	5.31	1174	5.56	1202	5.82	1228	6.07		
8000	1004	4.25	1029	4.45	1055	4.67	1082	4.92	1109	5.19	1136	5.46	1161	5.71	1186	5.97	1213	6.24	1236	6.48		
8400	1027	4.70	1051	4.90	1075	5.10	1100	5.33	1125	5.58	1151	5.85	1177	6.14	1202	6.42	1225	6.68	1250	6.96		
8800	1049	5.17	1074	5.39	1097	5.59	1120	5.81	1144	6.03	1168	6.30	1192	6.57	1216	6.85	1241	7.16	1264	7.44		
9200	1071	5.68	1096	5.90	1120	6.13	1143	6.34	1164	6.56	1186	6.79	1209	7.05	1233	7.35	—	—	—	—		
9600	1092	6.21	1117	6.45	1142	6.69	1166	6.93	1187	7.15	1208	7.38	—	—	—	—	—	—	—	—		
External Static Pressure (Inches of Water Gauge)																						
2.10"			2.20"		2.30"		2.40"															
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP														
7.5 HP Ultra High Static Motor w/Field Supplied Fan Sheave & Belt																						
6400	1230	5.11	1257	5.33	1282	5.54	1308	5.77														
6800	1239	5.52	1265	5.75	1290	5.98	1315	6.20														
7200	1246	5.92	1272	6.17	1298	6.41	1323	6.66														
7600	1255	6.35	1282	6.61	1306	6.86	—	—														
8000	1262	6.76	1289	7.04	1313	7.31	—	—														
8400	1273	7.22	—	—	—	—	—	—														
8800	—	—	—	—	—	—	—	—														
9200	—	—	—	—	—	—	—	—														
9600	—	—	—	—	—	—	—	—														

Notes:

1. Data includes pressure drop due to wet coil and 1" filter.
2. Fan motor heat (MBh) = 3.15 x BHP.
3. Check General Data for indoor fan motor HP availability.
4. For 380/60Hz models: Performance is limited to standard motor CFM/static range. No high static or oversized motors are available.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Important: See fan motor values in [Table 64, p. 79](#) - [Table 67, p. 82](#).

Table 61. Evaporator fan performance - TWE240** - 2-speed VFD, SZVAV air handler**

External Static Pressure (Inches of Water Gauge)																	
0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"	
CFM	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ
6400	—	—	—	—	—	—	—	—	—	732	39	1.86	769	41	2.02	802	42
6800	—	—	—	—	—	—	717	38	1.96	754	40	2.12	791	42	2.29	824	43
7200	—	—	—	—	—	—	742	39	2.24	778	41	2.42	812	43	2.59	846	45
7600	—	—	—	—	—	—	766	40	2.55	802	42	2.74	835	44	2.92	868	46
8000	—	—	—	—	—	—	791	42	2.88	826	44	3.09	858	45	3.28	889	47
8400	—	—	—	—	—	—	817	43	3.24	851	45	3.46	883	47	3.68	913	48
8800	737	39	3.01	773	41	3.21	808	43	3.41	843	44	3.63	876	46	3.87	907	48
9200	767	40	3.41	802	42	3.63	836	44	3.84	869	46	4.06	901	47	4.30	932	49
9600	797	42	3.86	831	44	4.08	863	45	4.30	896	47	4.53	927	49	4.78	957	50
5 HP Standard Drive																	
6400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8800	737	39	3.01	773	41	3.21	808	43	3.41	843	44	3.63	876	46	3.87	907	48
9200	767	40	3.41	802	42	3.63	836	44	3.84	869	46	4.06	901	47	4.30	932	49
9600	797	42	3.86	831	44	4.08	863	45	4.30	896	47	4.53	927	49	4.78	957	50
7.5 HP Standard Drive																	
6400	934	49	2.95	965	51	3.16	996	52	3.37	1028	54	3.58	1059	56	3.81	1091	57
6800	948	50	3.22	979	52	3.45	1008	53	3.66	1039	55	3.89	1069	56	4.12	1099	58
7200	964	51	3.51	994	52	3.75	1024	54	3.99	1052	55	4.22	1079	57	4.45	1108	59
7600	982	52	3.85	1011	53	4.07	1039	55	4.31	1066	56	4.56	1095	58	4.82	1121	60
8000	1004	53	4.25	1029	54	4.45	1055	56	4.67	1082	57	4.92	1109	59	5.19	1136	61
8400	1027	54	4.70	1051	55	4.90	1075	57	5.10	1100	59	5.33	1125	61	5.58	1151	62
8800	1049	48	5.17	1074	49	5.39	1097	50	5.59	1120	51	5.81	1144	52	6.03	1168	53
9200	1071	49	5.68	1096	50	5.90	1120	51	6.13	1143	52	6.34	1164	53	6.56	1186	54
9600	1092	50	6.21	1117	51	6.45	1142	52	6.69	1166	53	6.93	1187	54	7.15	1208	55
7.5 HP Standard Drive																	
6400	1230	56	5.11	1257	57	5.33	1282	58	5.54	1308	59	5.77	—	—	—	—	—
6800	1239	56	5.52	1265	57	5.75	1290	59	5.98	1315	60	6.20	—	—	—	—	—
7200	1246	57	5.92	1272	58	6.17	1298	59	6.41	1323	60	6.66	—	—	—	—	—
7600	1255	57	6.35	1282	58	6.61	1306	59	6.86	—	—	—	—	—	—	—	—
8000	1262	57	6.76	1289	59	7.04	1313	60	7.31	—	—	—	—	—	—	—	—
8400	1273	58	7.22	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Notes:

1. 2-Speed VFD or SZVAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.
2. Check General Data for indoor fan motor HP availability. For 380/60Hz models: Performance is limited to standard motor CFM/static range. No high static or oversized motors are available.

Table 62. Evaporator fan performance — TWE300 — standard air handler

External Static Pressure (Inches of Water Gauge)																						
	0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"		1.10"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7.5 HP Standard Motor & Low Static											7.5 HP Standard Motor & Drive											
Drive Field Installed Sheaves																						
8000	—	—	—	—	702	2.23	734	2.42	765	2.60	796	2.80	826	3.02	852	3.16	877	3.29	904	3.49	932	3.74
8500	—	—	—	—	733	2.58	765	2.80	794	2.99	824	3.19	853	3.41	881	3.64	905	3.79	928	3.92	953	4.12
9000	—	—	730	2.74	764	2.98	796	3.21	825	3.43	852	3.63	879	3.85	908	4.09	933	4.33	956	4.49	977	4.61
9500	727	2.89	763	3.16	796	3.42	826	3.67	855	3.91	881	4.12	907	4.34	934	4.58	960	4.83	984	5.08	1006	5.26
10000	761	3.34	796	3.62	828	3.90	857	4.17	886	4.42	912	4.67	936	4.88	961	5.12	986	5.37	1011	5.64	1034	5.91
10500	796	3.83	829	4.14	860	4.43	889	4.71	916	4.98	942	5.25	966	5.49	990	5.72	1013	5.97	1038	6.25	1061	6.52
11000	831	4.37	863	4.69	893	5.00	921	5.30	947	5.59	973	5.88	997	6.15	1019	6.39	1042	6.64	1064	6.90	1087	7.18
11500	866	4.96	896	5.30	925	5.63	953	5.94	979	6.25	1004	6.55	1028	6.84	1050	7.11	1071	7.36	1093	7.63	1114	7.90
12000	900	5.61	930	5.96	958	6.30	985	6.64	1010	6.96	1035	7.28	1058	7.59	1081	7.89	1101	8.16	1122	8.42	—	—
External Static Pressure (Inches of Water Gauge)																						
	1.20"		1.30"		1.40"		1.50"		1.60"		1.70"		1.80"		1.90"		2.00"		2.10"		2.20"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7.5 HP Standard Motor & Drive											7.5 HP Standard Motor & High Static Drive Field Installed											
											Sheaves											
8000	964	4.07	992	4.35	1016	4.58	1040	4.81	1063	5.03	1085	5.25	1106	5.47	1127	5.69	1148	5.91	1168	6.13	1188	6.35
8500	980	4.38	1008	4.69	1036	5.02	1062	5.31	1084	5.55	1106	5.78	1127	6.01	1149	6.25	1169	6.48	1189	6.71	1209	6.96
9000	1001	4.81	1025	5.05	1052	5.37	1079	5.73	1104	6.06	1128	6.34	1149	6.59	1170	6.85	1190	7.09	1211	7.35	1230	7.59
9500	1026	5.39	1048	5.57	1070	5.80	1095	6.11	1121	6.47	1147	6.84	1171	7.20	1191	7.47	1212	7.74	1231	8.00	1251	8.27
10000	1056	6.11	1075	6.25	1095	6.41	1116	6.65	1138	6.91	1162	7.26	1186	7.64	1211	8.05	1233	8.41	—	—	—	—
10500	1083	6.81	1104	7.04	1122	7.18	1141	7.33	1161	7.55	1181	7.81	1203	8.13	1226	8.50	—	—	—	—	—	—
11000	1110	7.48	1132	7.78	1152	8.04	1170	8.21	1187	8.35	1205	8.55	—	—	—	—	—	—	—	—	—	—
11500	1136	8.21	1158	8.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
External Static Pressure (Inches of Water Gauge)																						
	2.30"		2.40"																			
CFM	RPM	BHP	RPM	BHP																		
7.5 HP Standard Motor & High Static Drive Field Installed Sheaves																						
8000	1208	6.57	1226	6.78																		
8500	1228	7.19	1248	7.43																		
9000	1249	7.85	1268	8.10																		
9500	1270	8.53	—	—																		
10000	—	—	—	—																		
10500	—	—	—	—																		
11000	—	—	—	—																		
11500	—	—	—	—																		
12000	—	—	—	—																		

Notes:

1. Data includes pressure drop due to wet coil and 1" filter.
2. Fan motor heat (MBh) = 3.15 x BHP.
3. Check General Data for indoor fan motor HP availability.
4. For 380/60Hz models: Performance is limited to standard motor CFM/static range. No high static or oversized motors are available.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Important: See fan motor values in [Table 64, p. 79](#) - [Table 67, p. 82](#).

Table 63. Evaporator fan performance - TWE300** - 2-speed VFD, SZVAV air handler**

External Static Pressure (Inches of Water Gauge)																			
0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"			
CFM	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP	RPM
7.5 HP Standard Motor & Drive																			
8000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11000	831	39	4.37	863	41	4.69	893	42	5.00	921	44	5.30	947	45	5.59	973	46	5.88	997
11500	866	41	4.96	896	42	5.30	925	44	5.63	953	45	5.94	979	46	6.25	1004	47	6.55	1028
12000	900	43	5.61	930	44	5.96	958	45	6.30	985	47	6.64	1010	48	6.96	1035	49	7.28	1058
External Static Pressure (Inches of Water Gauge)																			
1.00"		1.10"		1.20"		1.30"		1.40"		1.50"		1.60"		1.70"		1.80"			
CFM	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP	RPM
7.5 HP Standard Motor & Drive																			
8000	904	43	3.49	932	44	3.74	964	46	4.07	992	47	4.35	1016	48	4.58	1040	49	4.81	1063
8500	928	44	3.92	953	45	4.12	980	46	4.38	1008	48	4.69	1036	49	5.02	1062	50	5.31	1084
9000	956	45	4.49	977	46	4.61	1001	47	4.81	1025	48	5.05	1052	50	5.37	1079	51	5.73	1104
9500	984	47	5.08	1006	48	5.26	1026	49	5.39	1048	50	5.57	1070	51	5.80	1095	52	6.11	1121
10000	1011	48	5.64	1034	49	5.91	1056	50	6.11	1075	51	6.25	1095	52	6.41	1116	53	6.65	1138
10500	1038	49	6.25	1061	50	6.52	1083	51	6.81	1104	52	7.04	1122	53	7.18	1141	54	7.33	1161
11000	1064	50	6.90	1087	51	7.18	1110	52	7.48	1132	54	7.78	1152	54	8.04	1170	55	8.21	1187
11500	1093	52	7.63	1114	53	7.90	1136	54	8.21	1158	55	8.51	—	—	—	—	—	—	—
12000	1122	53	8.42	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
External Static Pressure (Inches of Water Gauge)																			
1.90"		2.00"		2.10"		2.20"		2.30"		2.40"									
CFM	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP	RPM	Hz	BHP	RPM
7.5 HP Standard Motor & Drive																			
8000	1127	53	5.69	1148	54	5.91	1168	55	6.13	1188	56	6.35	1208	57	6.57	1226	58	6.78	—
8500	1149	54	6.25	1169	55	6.48	1189	56	6.71	1209	57	6.96	1228	58	7.19	1248	59	7.43	—
9000	1170	55	6.85	1190	56	7.09	1211	57	7.35	1230	58	7.59	1249	59	7.85	1268	60	8.10	—
9500	1191	56	7.47	1212	57	7.74	1231	58	8.00	1251	59	8.27	—	—	—	—	—	—	—
10000	1211	57	8.05	1233	58	8.41	—	—	—	—	—	—	—	—	—	—	—	—	—
10500	1226	58	8.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Notes:

- 2-Speed VFD or SZVAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.
- Check General Data for indoor fan motor HP availability. For 380/60Hz models: Performance is limited to standard motor CFM/static range. No high static or oversized motors are available.

Table 64. Low static fan motors - standard air handlers

Model	Motor	Motor Sheave Turns Open	Nominal RPM	Required Field Supplied Components		
				Motor Sheave	Blower Sheave	Belt
TWE180	Standard Motor with Field Supplied Components 3 HP	0	649	Variable Pitch (2.4 - 3.4 Inch Pitch Diameter), 0.875 Inch Bore, Single Groove, Browning 1VL40	Fixed Pitch (9.5 Inch Pitch Diameter), 1.4375 Inch Bore, Single Groove, Browning BK105	Browning AX59
		1	613			
		2	557			
		3	500			
		4	444			
		5	469			
TWE240	Low Static Motor 3 HP	0	855	N/A	N/A	N/A
		1	812			
		2	769			
		3	726			
		4	683			
		5	640			
TWE300	Standard Motor with Field Supplied Components 7.5 HP	1	929	Variable Pitch (3.1 - 4.1 Inch Pitch Diameter), 1.125 Inch Bore, Single Groove, Browning 1VL44	Fixed Pitch (15.4 Inch Pitch Diameter), 1.4375 Inch Bore, Single Groove, Browning BK160	Browning BX70
		2	884			
		3	839			
		4	793			
		5	748			
		6	703			

Table 65. Standard fan motors - standard air handlers

Model	Motor	Motor Sheave Turns Open	Nominal RPM	Required Field Supplied Components		
				Motor Sheave	Blower Sheave	Belt
TWE061	Standard Motor .75 HP	0	1071	N/A	N/A	N/A
		1	1000			
		2	928			
		3	857			
		4	785			
		5	714			
TWE073	Standard Motor 1.5 HP	0	847	N/A	N/A	N/A
		1	791			
		2	734			
		3	678			
		4	621			
		5	565			
TWE090	Standard Motor 1.5 HP	0	847	N/A	N/A	N/A
		1	791			
		2	734			
		3	678			
		4	621			
		5	565			
TWE120	Standard Motor 2 HP	0	818	N/A	N/A	N/A
		1	773			
		2	727			
		3	682			
		4	636			
		5	591			
TWE150	Standard Motor 2 HP	0	768	N/A	N/A	N/A
		1	725			
		2	683			
		3	640			
		4	598			
		5	555			



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Table 65. Standard fan motors - standard air handlers (continued)

Model	Motor	Motor Sheave Turns Open	Nominal RPM	Required Field Supplied Components		
				Motor Sheave	Blower Sheave	Belt
TWE180	Standard Motor 3 HP	0	845	N/A	N/A	N/A
		1	812			
		2	728			
		3	745			
		4	711			
		5	678			
		6	644			
TWE240	Standard Motor 5 HP	0	966	N/A	N/A	N/A
		1	932			
		2	899			
		3	865			
		4	831			
		5	798			
		6	764			
TWE300	Standard Motor 7.5 HP	0	1068	N/A	N/A	N/A
		1	1016			
		2	964			
		3	912			
		4	859			
		5	807			

Table 66. High static fan motors - standard air handlers

Model	Motor	Motor Sheave Turns Open	Nominal RPM	Required Field Supplied Components		
				Motor Sheave	Blower Sheave	Belt
TWE061	High Static Motor 1.5 HP	0	1346	N/A	N/A	N/A
		1	1279			
		2	1212			
		3	1144			
		4	1077			
		5	1010			
TWE073	High Static Motor 2 HP	0	1094	N/A	N/A	N/A
		1	1039			
		2	984			
		3	930			
		4	875			
		5	820			
TWE090	High Static Motor 2 HP	0	1094	N/A	N/A	N/A
		1	1039			
		2	984			
		3	930			
		4	875			
		5	820			
TWE120	High Static Motor 3 HP	0	972	N/A	N/A	N/A
		1	923			
		2	875			
		3	826			
		4	778			
		5	729			
TWE120	High Static Motor with Field Supplied Components 3 HP	0	1129	Variable Pitch (2.8 - 3.8 Inch Pitch Diameter), 0.875 Inch Bore, Single Groove, Browning 1VP44	Fixed Pitch (6.0 Inch Pitch Diameter), 1.0 Inch Bore, Single Groove, Browning AK64	Browning A50
		1	1073			
		2	1016			
		3	960			
		4	903			
		5	847			

Table 66. High static fan motors - standard air handlers (continued)

Model	Motor	Motor Sheave Turns Open	Nominal RPM	Required Field Supplied Components		
				Motor Sheave	Blower Sheave	Belt
TWE150	High Static Motor 3 HP	0 1 2 3 4 5	913 862 806 749 693 659	N/A	N/A	N/A
TWE150	High Static Motor with Field Supplied Components 2 HP	0 1 2 3 4 5	1094 1039 991 942 893 820	Variable Pitch (2.4 - 3.4 Inch Pitch Diameter), 0.875 Inch Bore, Single Groove, Browning 1VL40	Fixed Pitch (6.7 Inch Pitch Diameter), 1.4375 Inch Bore, Single Groove, Browning AK71	Browning A55
TWE180	High Static Motor 5 HP	0 1 2 3 4 5 6	1024 989 953 918 882 847 811	N/A	N/A	N/A
TWE180	High Static Motor with Field Supplied Components 5 HP	0 1 2 3 4 5 6	1217 1175 1118 1062 1006 964 964	Variable Pitch (3.4 - 4.4 Inch Pitch Diameter), 1.125 Inch Bore, Single Groove, Browning 1VP50	Fixed Pitch (7.4 Inch Pitch Diameter), 1.4375 Inch Bore, Single Groove, Browning BK72	Browning BX58
TWE240	Standard Motor with Field Supplied Components 5 HP	0 1 2 3 4 5 6	1091 1053 1015 978 940 902 864	Variable Pitch (3.4 - 4.4 Inch Pitch Diameter), 1.125 Inch Bore, Single Groove, Browning 1VP50	Fixed Pitch (7.4 Inch Pitch Diameter), 1.4375 Inch Bore, Single Groove, Browning BK115	Browning BX57
TWE300	Standard Motor with Field Supplied Components 7.5 HP	0 1 2 3 4 5 6	N/A 1313 1249 1185 1121 1057 993	Variable Pitch (3.1 - 4.1 Inch Pitch Diameter), 1.125 Inch Bore, Single Groove, Browning 1VP50	Fixed Pitch (10.9 Inch Pitch Diameter), 1.4375 Inch Bore, Single Groove, Browning BK115	Browning BX63



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Table 67. Ultra high static fan motors - standard air handlers

Model	Motor	Motor Sheave Turns Open	Nominal RPM	Required Field Supplied Components		
				Motor Sheave	Blower Sheave	Belt
TWE073	Ultra High Static Motor 3 HP	0 1 2 3 4 5 —	1346 1241 1136 1030 925 820 —	N/A	N/A	N/A
TWE090	Ultra High Static Motor 3 HP	0 1 2 3 4 5 —	1346 1241 1136 1030 925 820 —	N/A	N/A	N/A
TWE150	Ultra High Static Motor 5 HP	0 1 2 3 4 5 6	1217 1175 1133 1091 1048 1006 964	N/A	N/A	N/A
TWE240	Ultra High Static Motor 7.5 HP	0 1 2 3 4 5 6	1294 1243 1191 1140 1089 1037 986	N/A	N/A	N/A
TWE240	Ultra High Static Motor with Field Supplied Components 7.5 HP	0 1 2 3 4 5 6	1315 1281 1243 1205 1168 1100 1111	Variable Pitch (2.8 - 3.8 Inch Pitch Diameter), 1.125 Inch Bore, Single Groove, Browning 1VP44	Fixed Pitch (10.4 Inch Pitch Diameter), 1.4375 Inch Bore, Single Groove, Browning BK110	Browning BX62

Table 68. Discharge plenum and grille assembly throw distance (ft) — standard/SZVAV/2Speed VFD air handler

Tons	Model No.	CFM	Louver Angle Deflection Position			
			Straight	20°	40°	55°
5	TWE061D/E	1600	42	31	26	20
		1800	46	37	29	22
		2000	48	43	33	24
		2200	51	50	36	25
		2400	54	57	39	29
6	TWE073E	1920	48	33	30	27
		2160	50	38	32	28
		2400	52	43	35	29
		2640	54	47	38	30
		2880	57	51	41	32
7.5	TWE090D/E	2400	52	43	35	29
		2700	55	48	38	31
		3000	58	53	42	32
		3300	62	57	46	35
		3600	66	60	50	37

Table 68. Discharge plenum and grille assembly throw distance (ft) — standard/SZVAV/2Speed VFD air handler (continued)

Tons	Model No.	CFM	Louver Angle Deflection Position			
			Straight	20°	40°	55°
10	TWE120D/E	3200	56	46	38	30
		3600	62	51	42	33
		4000	66	57	47	35
		4400	71	62	52	38
		4800	76	67	56	42
12.5	TWE150E	4900	47	38	32	25
		5400	52	44	37	29
		6000	57	49	41	32
		6600	61	53	43	34
		7200	65	57	46	35
15	TWE180E	4900	47	38	32	25
		5400	52	44	37	29
		6000	57	49	41	32
		6600	61	53	43	34
		7200	65	57	46	35
20	TWE240E	6400	56	46	38	30
		7200	62	51	42	33
		8000	66	57	47	35
		8800	71	62	52	38
		9600	76	67	56	42
25	TWE300E	8000	66	57	47	35
		9000	72	63	53	39
		10000	78	70	59	43
		11000	84	76	65	46
		12000	90	83	71	50

Notes:

1. Assumes incompressible and adiabatic flow through grille.
2. Throw distance values are based on a terminal velocity of 75 FPM.
3. Throw distance values at other terminal velocities may be established by multiplying throw distances in the table above by throw factor as follows: for 50 FPM terminal velocity, multiply by 1.50 throw factor; for 100 FPM terminal velocity, multiply by 0.75 throw factor; for 150 FPM terminal velocity, multiply by 0.50 throw factor.
4. SZVAV/2-Speed VFD available for 6–25 ton only.

Table 69. Electric heat discharge plenum and grille airflow (CFM)—standard/SZVAV/2-Speed VFD air handler

Tons	Unit Model No.	Electric Heater Model No.	Airflow (CFM)	
			Minimum	Maximum
5	TWE061D1, E1	BAYHTRL117A	2000	2400
	TWE061D3, E3	BAYHTRL315A	2000	2400
	TWE061D4, E4	BAYHTRL415A	2000	2400
6	TWE073E3	BAYHTRL315A	2000	2880
	TWE073E3	BAYHTRL325A	2000	2880
	TWE073E3 ^(a)	BAYHTRL415A	2000	2880
	TWE073E3 ^(a)	BAYHTRL425A	2000	2880
7.5	TWE090D1, E1	BAYHTRL117A	3000	3600
	TWE090D1, E1	BAYHTRL123A	3375	3600
7.5	TWE090D3, E3	BAYHTRL315A	2625	3600
	TWE090D3, E3	BAYHTRL325A	3000	3600
	TWE090D3, E3 ^(a)	BAYHTRL415A	2625	3600
	TWE090D3, E3 ^(a)	BAYHTRL425A	2625	3600
10	TWE120D1, E1	BAYHTRL117A	3500	4800
	TWE120D1, E1	BAYHTRL123A	4000	4800



Performance Data

Table 69. Electric heat discharge plenum and grille airflow (CFM)—standard/SZVAV/2-Speed VFD air handler (continued)

Tons	Unit Model No.	Electric Heater Model No.	Airflow (CFM)	
			Minimum	Maximum
10	TWE120D3, E3	BAYHTRL315A	4000	4800
	TWE120D3, E3	BAYHTRL325A	3500	4800
	TWE120D3, E3 ^(a) , D4, E4	BAYHTRL415A	3500	4800
	TWE120D3, E3 ^(a) , D4, E4	BAYHTRL425A	3500	4800
12.5	TWE150E3	BAYHTRM330A	5250	6000
	TWE150E3 ^(a) , TWE150E4	BAYHTRM430A	5250	6000
15	TWE180E3	BAYHTRM330A	5250	7200
	TWE180E3 ^(a) , TWE180E4	BAYHTRM430A	5250	7200
20	TWE240E3	BAYHTRM330A	7000	9600
	TWE240E4	BAYHTRM430A	7000	9600
25	TWE300E3	BAYHTRM330A	8750	12000
	TWE300E4	BAYHTRM430A	8750	12000

Note: SZVAV/2-Speed VFD available for 6–25 ton only.

^(a) Standard Air Handler field wired for 460V, use with BAYHTR*4** only. See Electric Heaters in the Accessories chapter.

Table 70. Static pressure drop through accessories (inches of water column) — Standard/SZVAV/2-Speed VFD air handler

Tons	Unit Model No.	CFM	Return Grille	Discharge Plenum & Grille	Electric Heaters (kW)				Hydronic Coils	
					5–10	15–20	25–30	35–50	Steam	Hot Water
5	TWE061D/E	1600	0.12	0.21	0.08	0.08	0.14	—	0.44	0.31
		2000	0.18	0.33	0.13	0.13	0.19	—	0.62	0.44
		2400	0.28	0.47	0.19	0.19	0.37	—	0.80	0.59
6	TWE073E	1920	0.04	0.20	0.01	0.03	0.04	0.06	0.31	0.16
		2400	0.08	0.27	0.03	0.06	0.08	0.12	0.38	0.23
		2880	0.12	0.37	0.05	0.11	0.15	0.21	0.48	0.31
7.5	TWE090D/E	2400	0.08	0.27	0.03	0.06	0.08	0.12	0.38	0.23
		3000	0.13	0.40	0.06	0.12	0.17	0.23	0.50	0.33
		3600	0.18	0.58	0.08	0.16	0.24	0.32	0.66	0.44
10	TWE120D/E	3200	0.70	0.43	0.06	0.13	0.19	0.26	0.42	0.40
		4000	0.11	0.66	0.10	0.20	0.30	0.40	0.59	0.56
		4800	0.15	0.95	0.14	0.28	0.42	0.57	0.76	0.75
12.5	TWE150E	4000	0.06	0.16	0.02	0.02	0.04	0.08	0.28	0.24
		5000	0.10	0.25	0.03	0.03	0.08	0.12	0.44	0.38
		6000	0.14	0.36	0.04	0.05	0.12	0.17	0.64	0.54
15	TWE180E	4800	0.09	0.23	0.03	0.03	0.06	0.08	0.46	0.38
		6000	0.15	0.34	0.06	0.06	0.12	0.17	0.64	0.54
		7200	0.20	0.49	0.08	0.08	0.16	0.24	0.82	0.72
20	TWE240E	6400	0.11	0.43	0.06	0.06	0.13	0.19	0.50	0.41
		8000	0.17	0.66	0.10	0.10	0.20	0.30	0.70	0.58
		9600	0.23	0.95	0.14	0.14	0.28	0.42	0.89	0.78
25	TWE300E	8000	0.17	0.66	0.10	0.10	0.20	0.30	0.70	0.58
		10000	0.25	1.03	0.15	0.15	0.30	0.45	0.94	0.83
		12000	0.32	1.49	0.20	0.20	0.42	0.62	1.16	1.14

Notes:

1. SZVAV/2-Speed VFD available for 6–25 ton only.
2. Return air filter ESP included in Fan Performance Table data.
3. Discharge plenum and grille - at louver opening angle of 42°. For ESP at other angle openings, see accessory installation instructions.

Performance Data

Table 71. Auxiliary electric heat capacity - standard/SZVAV/2-Speed air handler

Unit Model No.	Total kW	No. of Stages	Stage 1		Stage 2		Total	
			kW Input	BTUH Output	kW Input	BTUH Output	kW Input	BTUH Output
TWE061D1, TWE061E1	5.76	1	5.76	19659	-	-	5.76	19659
	11.52	1	11.52	39318	-	-	11.52	39318
	17.28	1	17.28	58977	-	-	17.28	58977
	23.04	2	11.52	39318	11.52	39318	23.04	78636
TWE061D3, TWE061D4, TWE061DW, TWE061E3, TWE061E4	5.00	1	5.00	17065	-	-	5.00	17065
	9.96	1	9.96	33993	-	-	9.96	33993
	14.96	1	14.96	51058	-	-	14.96	51058
	24.92	2	14.96	51058	9.96	33993	24.92	85051
TWE073E3(a), TWE073E4, TWE073EW	5.00	1	5.00	17065	-	-	5.00	17065
	9.96	1	9.96	33993	-	-	9.96	33993
	14.96	1	14.96	51058	-	-	14.96	51058
	24.92	2	14.96	51058	9.96	33993	24.92	85051
TWE090D1, TWE090E1	5.76	1	5.76	19659	-	-	5.76	19659
	11.52	1	11.52	39318	-	-	11.52	39318
	17.28	1	17.28	58977	-	-	17.28	58977
	23.04	2	11.52	39318	11.52	39318	23.04	78636
TWE090D3(a), TWE090E3(a), TWE090E4, TWE090EW	5.00	1	5.00	17065	-	-	5.00	17065
	9.96	1	9.96	33993	-	-	9.96	33993
	14.96	1	14.96	51058	-	-	14.96	51058
	24.92	2	14.96	51058	9.96	33993	24.92	85051
TWE090D1	10.00	1	10.00	34130	-	-	10.00	34130
	28.80	2	17.28	58977	11.52	39318	28.80	98295
	34.88	2	19.92	67987	14.96	51058	34.88	119045
TWE090D3(a), TWE090E4, TWE090EW	10.00	1	10.00	34130	-	-	10.00	34130
	28.80	2	17.28	58977	11.52	39318	28.80	98295
	34.88	2	19.92	67987	14.96	51058	34.88	119045
TWE120D1, TWE120E1	5.76	1	5.76	19659	-	-	5.76	19659
	11.52	1	11.52	39318	-	-	11.52	39318
	17.28	1	17.28	58977	-	-	17.28	58977
	23.04	2	11.52	39318	11.52	39318	23.04	78636
TWE120D3(a), TWE120DW, TWE120D4, TWE120E4, TWE120E3(a), TWE120EW	5.00	1	5.00	17065	-	-	5.00	17065
	9.96	1	9.96	33993	-	-	9.96	33993
	14.96	1	14.96	51058	-	-	14.96	51058
	24.92	2	14.96	51058	9.96	33993	24.92	85051
TWE120D1, TWE120E1	10.00	1	10.00	34130	-	-	10.00	34130
	28.80	2	17.28	58977	11.52	39318	28.80	98295
	34.88	2	19.92	67987	14.96	51058	34.88	119045
TWE120D3(a), TWE120D4, TWE120DW, TWE120E3(a), TWE120E4, TWE120EW	10.00	1	10.00	34130	-	-	10.00	34130
	28.80	2	17.28	58977	11.52	39318	28.80	98295
	34.88	2	19.92	67987	14.96	51058	34.88	119045
TWE150E	10.00	1	10.00	34130	-	-	10.00	34130
	19.92	1	19.92	67987	-	-	19.92	67987
	29.92	2	19.92	67987	10.00	34130	29.92	102117
	49.84	2	29.92	102117	19.92	67987	49.84	170104
TWE180E	10.00	1	10.00	34130	-	-	10.00	34130
	19.92	1	19.92	67987	-	-	19.92	67987
	29.92	2	19.92	67987	10.00	34130	29.92	102117
	49.84	2	29.92	102117	19.92	67987	49.84	170104
TWE240E	10.00	1	10.00	34130	-	-	10.00	34130
	19.92	1	19.92	67987	-	-	19.92	67987
	29.92	2	19.92	67987	10.00	34130	29.92	102117
	49.84	2	29.92	102117	19.92	67987	49.84	170104

Table 71. Auxiliary electric heat capacity - standard/SZVAV/2-Speed air handler (continued)

Unit Model No.	Total kW	No. of Stages	Stage 1		Stage 2		Total	
			kW Input	BTUH Output	kW Input	BTUH Output	kW Input	BTUH Output
TWE300E	10.00	1	10.00	34130	–	–	10.00	34130
	19.92	1	19.92	67987	–	–	19.92	67987
	29.92	2	19.92	67987	10.00	34130	29.92	102117
	49.84	2	29.92	102117	19.92	67987	49.84	170104

Notes:

1. Heaters are rated at 240V, 480V, and 600V. For other than rated voltage, capacity = (Voltage/Related Voltage)² x Rated Capacity.
2. SZVAV/2-Speed VFD available for 6–25 ton only.

(a) Standard air handler field converted to 460V.

Table 72. Steam heating coil capacity – standard/SZVAV/2-Speed VFD air handlers steam pressure (PSIG)

Unit Model No.	Airflow (CFM)	EAT (°F)	Steam Pressure (PSIG)														
			2 PSI			5 PSI			10 PSI			15 PSI			25 PSI		
			LAT	MBh	Cond. lb/hr	LAT	MBh	Cond. lb/hr	LAT	MBh	Cond. lb/hr	LAT	MBh	Cond. lb/hr	LAT	MBh	Cond. lb/hr
TWE061D, TWE061E	1600	40	97	99	103	100	104	108	104	111	117	108	117	124	113	127	136
		60	111	88	91	114	93	97	118	100	105	121	106	112	127	116	124
		80	125	77	80	127	82	85	131	89	94	135	95	101	140	105	112
	2000	40	90	108	112	93	114	118	96	122	128	99	129	136	104	139	149
		60	104	96	100	107	102	106	111	110	115	114	116	123	119	127	136
		80	119	84	87	121	90	93	125	98	102	128	104	110	133	115	123
	2400	40	85	116	120	87	123	127	90	131	137	93	138	146	98	150	160
		60	100	104	107	102	110	114	105	118	124	108	125	132	113	137	146
		80	115	91	94	117	97	100	120	105	110	123	112	118	127	123	132
TWE073E	1920	40	106	151	157	112	159	165	116	169	178	121	179	189	126	194	207
		60	120	134	139	124	141	147	128	153	160	133	162	172	139	177	189
		80	133	117	121	136	125	131	140	136	143	145	144	152	151	159	170
	2400	40	102	162	168	106	171	177	110	182	191	114	192	203	120	208	222
		60	115	144	149	119	152	158	123	164	172	127	174	184	133	190	203
		80	129	126	130	132	134	140	136	146	153	140	155	164	146	171	183
	2880	40	96	174	180	100	183	190	104	196	205	107	206	218	113	223	239
		60	110	154	159	113	163	170	117	176	184	121	186	197	126	204	218
		80	124	135	140	127	144	150	131	157	164	134	166	176	140	184	197
TWE090D, TWE090E	2400	40	102	162	168	106	171	177	110	182	191	114	192	203	120	208	222
		60	115	144	149	119	152	158	123	164	172	127	174	184	133	190	203
		80	129	126	130	132	134	140	136	146	153	140	155	164	146	171	183
	3000	40	95	178	183	97	187	194	101	200	209	105	210	222	110	228	244
		60	109	158	163	111	167	174	115	180	188	119	190	201	124	208	222
		80	122	138	143	125	147	153	129	160	168	132	170	180	138	188	201
	3600	40	89	191	197	91	201	208	95	215	225	97	226	239	103	245	262
		60	103	170	175	106	180	187	110	193	203	112	205	216	117	224	239
		80	118	149	154	121	158	164	124	172	180	127	183	194	132	202	216
TWE120D, TWE120E	3200	40	99	203	210	102	214	222	106	229	240	109	241	254	115	261	279
		60	112	181	187	115	191	199	119	206	216	123	218	230	129	238	255
		80	126	158	164	129	169	175	133	183	192	136	195	206	142	215	230
	4000	40	91	222	229	94	234	243	98	250	262	101	264	278	106	286	306
		60	106	198	204	108	209	217	112	225	236	115	239	252	120	261	279
		80	120	173	179	123	184	192	126	200	210	129	214	226	134	236	252
	4800	40	86	239	246	88	251	261	92	269	282	94	284	299	99	307	329
		60	101	212	219	103	225	233	107	242	254	109	257	271	114	280	300
		80	116	186	192	118	198	206	121	215	226	124	230	243	129	253	271



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**Table 72. Steam heating coil capacity – standard/SZVAV/2-Speed VFD air handlers steam pressure (PSIG)
(continued)**

Unit Model No.	Airflow (CFM)	EAT (°F)	Steam Pressure (PSIG)														
			2 PSI			5 PSI			10 PSI			15 PSI			25 PSI		
			LAT	MBh	Cond. lb/hr	LAT	MBh	Cond. lb/hr	LAT	MBh	Cond. lb/hr	LAT	MBh	Cond. lb/hr	LAT	MBh	Cond. lb/hr
TWE150E	4000	40	103	274	283	106	288	299	111	308	323	115	325	343	121	352	376
		60	116	244	252	119	258	268	124	277	291	128	294	310	134	321	343
		80	129	213	220	132	227	236	137	247	259	141	263	278	147	290	310
	5000	40	95	300	309	98	316	328	102	337	354	106	356	346	111	286	412
		60	109	267	275	112	282	293	116	304	318	119	322	340	125	352	376
		80	123	234	241	126	249	259	130	270	283	133	288	305	139	318	340
	6000	40	90	322	332	92	339	352	96	363	380	99	383	404	104	415	444
		60	104	287	296	107	303	315	110	327	342	113	347	366	118	379	405
		80	119	251	259	121	268	278	125	291	305	128	310	328	133	342	366
TWE180E	4800	40	97	295	304	100	310	322	104	332	348	107	350	369	113	379	406
		60	110	262	271	113	278	288	117	299	313	121	317	334	126	346	370
		80	124	230	237	127	245	254	131	266	279	134	284	299	140	313	334
	6000	40	90	322	332	92	339	352	96	363	380	99	383	404	104	415	444
		60	104	287	296	107	303	315	110	327	343	113	347	366	118	379	405
		80	119	251	259	121	268	278	125	291	305	128	310	328	133	342	366
	7200	40	84	346	356	87	364	378	90	390	408	93	411	434	97	446	477
		60	99	308	318	102	326	338	105	351	368	108	373	393	112	407	435
		80	115	270	278	117	287	299	120	313	327	123	334	352	127	368	394
TWE240E	6400	40	95	379	391	97	399	414	102	427	447	105	450	475	110	488	522
		60	109	337	348	111	357	371	115	384	403	119	408	430	124	445	476
		80	123	295	305	125	315	327	129	342	358	133	365	385	138	402	430
	8000	40	88	414	426	90	436	452	94	467	488	97	492	519	102	534	571
		60	102	368	380	105	390	405	108	420	440	111	446	470	116	487	521
		80	117	322	333	120	344	357	123	374	392	126	399	421	131	440	471
	9600	40	83	443	457	85	468	485	88	501	524	91	529	558	95	574	613
		60	98	395	407	100	418	434	103	451	473	106	479	505	110	524	560
		80	113	346	357	115	369	383	119	402	421	121	429	453	125	473	506
TWE300E	8000	40	88	414	426	90	436	452	94	467	488	97	492	519	102	534	571
		60	102	368	380	105	390	405	108	420	440	111	446	470	116	487	521
		80	117	322	333	120	344	357	123	374	392	126	399	421	131	440	471
	10000	40	82	450	464	84	475	492	87	509	533	90	537	567	94	583	623
		60	97	401	413	99	425	441	102	459	480	105	487	513	109	532	569
		80	112	352	363	115	375	389	118	408	427	120	436	460	124	481	514
	12000	40	77	479	493	79	509	527	82	546	571	84	577	608	88	627	669
		60	93	430	443	95	456	473	98	492	515	100	523	551	104	572	611
		80	109	377	389	111	402	418	114	438	459	116	468	494	120	517	553

Notes:

1. Type NS Coil, 1 Row, 1" OD, SF Fins, 132 Fins per Foot.
2. SZVAV/2-Speed VFD available for 6–25 ton only.
3. LAT = Leaving Air Temperature (°F)
4. MBh Capacity= BTU/HR/1000
5. Cond. Lb/Hr = Condensate pound per hour

Table 73. Hot water heating coil capacity – standard/SZVAV/2-Speed VFD air handler

Tons	Unit Model No.	Airflow (CFM)	Enter Air Temp (°F)	Entering Water Temperature (°F)								
				180								
				Water Temperature Drop (°F)								
				20			30			40		
				GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT
5	TWE061D, TWE061E	1600	40	10.9	106.1	101.0	6.6	96.5	96.0	4.5	87.4	90.0
			60	9.0	88.3	111.0	5.4	79.1	106.0	3.6	70.3	100.0
			80	7.2	70.6	121.0	4.2	61.8	116.0	2.7	53.4	111.0
		2000	40	12.3	119.8	95.0	7.4	108.6	90.0	5.0	97.9	851.0
			60	10.2	99.6	106.0	6.1	88.8	101.0	4.0	78.6	96.0
			80	8.1	79.5	117.0	4.7	69.2	112.0	3.0	59.6	107.0
		2400	40	13.5	132.0	91.0	8.1	119.2	86.0	5.5	107.1	811.0
			60	11.2	109.6	102.0	6.6	97.4	97.0	4.4	85.9	931.0
			80	9.0	87.4	114.0	5.2	75.7	109.0	3.3	64.9	105.0
6	TWE073E	1920	40	15.4	150.3	112.5	9.4	137.6	106.4	6.4	124.9	100.2
			60	12.8	124.9	120.2	7.6	111.3	113.7	5.2	101.5	109.0
			80	10.2	99.6	128.0	6.0	87.8	122.4	3.9	76.1	116.7
		2400	40	17.0	165.9	104.0	10.4	152.3	98.0	7.1	139.2	93.0
			60	14.2	138.4	113.0	8.5	125.2	108.0	5.7	112.5	103.0
			80	11.4	111.1	123.0	6.7	98.3	118.0	4.4	86.1	113.0
		2880	40	18.7	182.5	98.7	11.5	168.4	94.1	7.7	150.3	88.3
			60	15.6	152.3	109.0	9.2	134.7	103.3	6.4	124.9	100.2
			80	12.5	122.0	119.2	7.2	105.4	113.9	4.7	91.7	109.5
7.5	TWE090D, TWE090E	2400	40	17.0	165.9	104.0	10.4	152.3	98.0	7.1	139.2	93.0
			60	14.2	138.4	113.0	8.5	125.2	108.0	5.7	112.5	103.0
			80	11.4	111.1	123.0	6.7	98.3	118.0	4.4	86.1	113.0
		3000	40	19.3	187.9	98.0	11.7	171.9	93.0	8.0	156.5	88.0
			60	16.1	156.7	108.0	9.6	141.1	103.0	6.4	126.3	991.0
			80	12.9	125.5	119.0	7.5	110.6	114.0	4.9	96.5	110.0
		3600	40	21.2	207.3	93.0	12.9	189.1	88.0	8.8	171.6	84.0
			60	17.7	172.7	104.0	10.6	155.0	100.0	7.1	138.3	95.0
			80	14.2	138.2	115.0	8.3	121.2	111.0	5.4	105.4	107.0
10	TWE120D, TWE120E	3200	40	24.5	239.1	109.0	14.3	210.0	100.0	9.1	178.7	91.0
			60	20.2	197.3	117.0	11.5	168.4	108.0	6.9	134.8	99.0
			80	15.9	155.6	125.0	8.6	126.1	116.0	4.0	78.7	103.0
		4000	40	27.8	271.7	103.0	16.2	237.5	95.0	10.3	201.9	86.0
			60	22.9	223.8	112.0	13.0	190.3	104.0	7.8	153.3	95.0
			80	18.1	176.2	121.0	9.7	142.6	113.0	5.0	97.3	102.0
		4800	40	30.7	300.0	98.0	17.8	261.3	90.0	11.3	221.7	82.0
			60	25.3	246.9	107.0	14.3	209.1	100.0	8.6	168.9	92.0
			80	19.9	194.0	117.0	10.7	156.7	110.0	5.6	110.2	101.0
12.5	TWE150E	4000	40	31.7	318.0	113.3	19.2	287.7	106.3	12.8	256.5	99.1
			60	26.4	264.4	120.9	15.6	234.4	114.0	10.2	203.2	106.9
			80	21.1	210.9	128.6	12.1	181.1	121.7	7.4	148.9	114.3
		5000	40	36.0	360.6	106.5	21.7	325.2	100.0	14.4	288.8	93.3
			60	29.9	299.6	115.3	17.6	264.5	108.8	11.4	228.3	102.1
			80	23.8	238.7	124.0	13.6	203.8	117.6	8.4	167.5	110.9
		6000	40	39.7	397.0	101.0	23.8	357.0	94.9	15.8	316.1	88.6
			60	32.9	329.6	110.7	19.3	290.0	104.6	12.5	249.5	98.3
			80	26.2	262.3	120.3	14.9	223.1	114.3	9.1	182.8	108.1



Performance Data

Table 73. Hot water heating coil capacity — standard/SZVAV/2-Speed VFD air handler (continued)

Tons	Unit Model No.	Airflow (CFM)	Enter Air Temp (°F)	Entering Water Temperature (°F)								
				180								
				Water Temperature Drop (°F)								
				20			30			40		
				GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT
15	TWE180E	4800	40	35.2	343.9	106.0	21.2	310.3	100.0	14.1	276.3	93.0
			60	29.3	285.7	115.0	17.2	252.7	108.0	11.2	218.5	102.0
			80	23.3	227.7	124.0	13.3	195.0	117.0	8.2	159.9	111.0
		6000	40	40.0	390.3	100.0	23.9	350.8	94.0	15.9	311.4	884.0
			60	33.3	323.9	110.0	19.5	285.3	104.0	12.6	246.2	98.0
			80	26.4	257.7	120.0	15.0	219.9	114.0	9.2	180.5	108.0
		7200	40	44.2	431.3	95.0	26.4	386.5	89.0	17.5	342.1	84.0
			60	36.6	357.6	106.0	21.4	313.9	100.0	13.8	270.6	95.0
			80	29.1	284.2	116.0	16.5	241.6	111.0	10.1	198.3	105.0
20	TWE240E	6400	40	46.8	456.2	106.0	28.4	416.5	100.0	19.3	376.7	94.0
			60	39.0	380.2	115.0	23.3	341.2	109.0	15.4	301.7	103.0
			80	31.2	304.5	124.0	18.2	266.0	118.0	11.6	227.0	113.0
		8000	40	53.0	517.5	100.0	32.1	470.9	94.0	21.7	424.5	89.0
			60	44.2	430.9	110.0	26.3	385.2	104.0	17.4	339.6	99.0
			80	35.3	344.6	120.0	20.5	299.8	115.0	13.0	255.2	109.0
		9600	40	58.6	572.0	94.0	35.4	519.1	90.0	23.9	466.8	85.0
			60	48.8	475.9	106.0	28.9	424.2	101.0	19.1	373.3	96.0
			80	39.0	380.2	116.0	22.5	329.6	112.0	14.3	280.0	107.0
25	TWE300E	8000	40	52.0	520.2	100.0	31.6	474.4	94.7	21.4	427.6	89.3
			60	43.3	433.6	110.0	25.9	388.2	104.7	17.1	341.6	99.4
			80	34.7	347.0	120.0	20.1	301.9	114.8	12.8	255.3	109.4
		10000	40	57.9	579.4	93.4	35.1	526.9	88.6	23.7	473.6	83.7
			60	48.2	482.5	104.5	28.7	430.6	99.7	18.9	377.7	94.8
			80	38.5	385.7	115.6	22.3	334.3	110.8	14.1	281.6	106.0
		12000	40	62.8	628.6	88.3	38.0	570.5	83.8	25.6	511.7	79.3
			60	52.3	523.2	100.2	31.0	465.8	95.8	20.4	407.5	91.3
			80	41.7	417.9	112.2	24.1	361.2	107.8	15.2	303.3	103.3
Tons	Unit Model No.	Airflow (CFM)	Enter Air Temp (°F)	Entering Water Temperature (°F)								
				200								
				Water Temperature Drop (°F)								
				20			30			40		
				GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT
5	TWE061D, TWE061E	1600	40	12.9	124.9	112.0	7.9	115.4	106.0	5.5	106.3	101.0
			60	11.0	107.0	122.0	6.7	97.8	116.0	4.6	88.9	111.0
			80	9.2	89.1	131.0	5.5	80.2	126.0	3.7	71.7	121.0
		2000	40	4.5	141.3	105.0	8.9	130.1	100.0	6.1	119.4	95.0
			60	12.4	120.9	116.0	7.5	110.1	111.0	5.1	99.7	106.0
			80	10.4	100.6	126.0	6.2	90.2	122.0	4.1	80.3	117.0
		2400	40	6.0	155.8	100.0	9.8	143.1	95.0	6.7	131.0	90.0
			60	3.7	133.3	111.0	8.3	120.9	106.0	5.6	109.2	102.0
			80	11.4	110.8	123.0	6.8	98.9	118.0	4.5	87.8	114.0

Table 73. Hot water heating coil capacity – standard/SZVAV/2-Speed VFD air handler (continued)

Tons	Unit Model No.	Airflow (CFM)	Enter Air Temp (°F)	Entering Water Temperature (°F)								
				200								
				Water Temperature Drop (°F)								
				20			30			40		
				GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT
6	TWE073E	1920	40	17.9	174.7	124.3	11.2	164.0	119.1	7.9	154.2	114.4
			60	15.6	152.3	133.4	9.6	140.5	127.8	6.5	126.9	121.2
			80	13.0	126.9	141.2	8.0	117.1	136.5	5.4	105.4	130.8
		2400	40	20.0	194.8	115.0	12.4	181.2	110.0	8.6	168.2	105.0
			60	17.2	167.1	124.0	10.6	153.9	119.0	7.2	141.2	114.0
			80	14.4	139.6	134.0	8.7	126.8	129.0	5.9	114.3	124.0
		2880	40	21.9	213.7	108.7	13.7	200.6	104.5	9.6	187.4	100.2
			60	19.0	185.4	119.6	11.7	171.3	115.1	8.0	156.2	110.2
			80	15.8	154.2	129.6	9.7	142.0	125.7	6.5	126.9	120.8
7.5	TWE090D, TWE090E	2400	40	20.0	194.8	115.0	12.4	181.2	110.0	8.6	168.2	105.0
			60	17.2	167.1	124.0	10.6	153.9	119.0	7.2	141.2	114.0
			80	14.4	139.6	134.0	8.7	126.8	129.0	5.9	114.3	124.0
		3000	40	22.7	220.9	108.0	14.0	204.9	103.0	9.7	189.6	98.0
			60	9.5	189.4	118.0	11.9	173.9	113.0	8.2	159.0	109.0
			80	16.3	158.1	129.0	9.8	143.0	124.0	6.6	128.5	119.0
		3600	40	25.1	244.0	102.0	15.5	225.7	98.1	0.7	208.4	93.0
			60	21.5	209.1	113.0	13.1	191.4	109.0	9.0	174.4	105.0
			80	17.9	174.3	125.0	10.8	157.1	120.0	7.2	140.9	116.0
10	TWE120D, TWE120E	3200	40	29.3	284.7	122.0	17.6	256.8	114.0	11.7	228.6	106.0
			60	25.0	242.6	130.0	14.7	215.2	122.0	9.6	186.9	114.0
			80	20.6	200.6	138.0	11.9	173.6	130.0	7.4	144.3	122.0
		4000	40	33.4	324.1	115.0	19.9	291.0	107.0	13.3	258.2	99.0
			60	28.4	275.8	124.0	16.7	243.6	116.0	10.8	211.0	109.0
			80	23.4	227.7	132.0	13.4	196.2	125.0	8.4	163.2	118.0
		4800	40	36.9	358.3	109.0	22.0	320.7	102.0	14.6	283.7	94.0
			60	31.4	304.7	118.0	18.4	268.1	111.0	11.9	231.6	104.0
			80	25.9	251.3	128.0	14.8	215.6	121.0	9.2	179.4	114.0
12.5	TWE150E	4000	40	37.3	374.5	126.3	23.0	345.9	119.7	15.8	316.5	113.0
			60	32.0	320.9	134.0	19.4	292.5	127.4	13.1	263.1	120.7
			80	26.6	267.4	141.6	15.9	293.1	135.1	10.5	209.7	128.3
		5000	40	42.4	425.4	118.5	26.0	391.7	112.2	17.8	357.2	105.9
			60	36.3	364.3	127.2	22.0	330.8	121.0	14.8	296.5	114.7
			80	30.2	303.2	135.9	17.9	269.9	129.8	11.8	235.8	123.5
		6000	40	46.7	468.8	112.0	28.6	430.6	106.2	19.5	391.7	100.2
			60	40.0	401.2	121.7	24.2	363.3	115.8	16.2	324.8	109.9
			80	33.2	333.6	131.3	19.7	296.1	125.5	12.9	257.8	119.6
15	TWE180E	4800	40	41.8	406.0	118.0	25.6	373.4	112.0	17.5	341.0	105.0
			60	35.8	347.5	127.0	21.6	315.4	121.0	14.6	283.4	114.0
			80	29.8	289.1	135.0	17.7	257.6	129.0	11.6	225.7	123.0
		6000	40	7.5	461.4	111.0	29.0	423.0	105.0	19.8	385.0	99.0
			60	40.6	394.6	121.0	24.5	356.9	115.0	16.4	319.6	109.0
			80	33.8	327.9	130.0	19.9	291.0	125.0	13.1	254.3	119.0
		7200	40	52.5	510.4	105.0	32.0	466.7	100.0	21.8	423.8	94.0
			60	44.9	436.3	116.0	27.0	393.5	110.0	18.0	351.4	105.0
			80	37.3	362.2	126.0	22.0	320.5	121.0	14.3	279.5	116.0



Performance Data

Table 73. Hot water heating coil capacity – standard/SZVAV/2-Speed VFD air handler (continued)

Tons	Unit Model No.	Airflow (CFM)	Enter Air Temp (°F)	Entering Water Temperature (°F)								
				200								
				Water Temperature Drop (°F)								
				20			30			40		
				GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT
20	TWE240E	6400	40	55.2	536.5	117.0	34.1	497.8	112.0	23.6	459.4	106.0
			60	47.4	460.2	126.0	28.9	422.1	121.0	19.7	384.2	115.0
			80	39.5	384.0	135.0	23.8	346.5	130.0	15.9	308.9	124.0
		8000	40	62.7	609.2	110.0	38.6	563.8	105.0	26.6	518.8	100.0
			60	53.8	522.2	120.0	32.7	477.6	115.0	22.2	433.3	110.0
			80	44.8	435.4	130.0	26.8	391.5	125.0	17.9	347.9	120.0
		9600	40	69.4	673.9	105.0	42.7	622.3	100.0	29.3	571.5	95.0
			60	59.4	577.4	115.0	36.1	526.8	111.0	24.5	476.7	106.0
			80	49.5	481.0	126.0	29.6	431.4	121.0	19.6	382.6	117.0
25	TWE300E	8000	40	60.9	611.5	110.5	37.7	567.6	105.4	26.1	523.0	100.3
			60	52.3	524.6	120.5	32.0	481.1	115.5	21.8	436.7	110.3
			80	43.6	437.8	130.5	26.2	394.6	125.5	17.5	350.3	120.4
		10000	40	67.9	681.6	102.9	42.0	631.2	98.2	28.9	580.2	93.5
			60	58.2	584.4	113.9	35.5	534.5	109.3	24.1	483.9	104.6
			80	48.6	487.4	124.9	29.1	437.9	120.4	19.3	387.5	115.7
		12000	40	73.7	740.0	96.9	45.5	684.0	92.6	31.3	627.7	88.2
			60	63.2	634.2	108.7	38.5	578.9	104.5	26.1	523.0	100.2
			80	52.7	528.6	120.6	31.5	473.8	116.4	20.9	418.3	112.1
Tons	Unit Model No.	Airflow (CFM)	Enter Air Temp (°F)	Entering Water Temperature (°F)								
				210								
				Water Temperature Drop (°F)								
				20			30			40		
				GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT
5	TWE061D, TWE061E	1600	40	13.9	134.3	117.0	8.6	124.8	112.0	6.0	115.8	107.0
			60	12.0	116.3	127.0	7.4	107.1	122.0	5.1	98.3	117.0
			80	10.2	98.4	137.0	6.1	89.5	132.0	4.2	80.9	127.0
		2000	40	15.7	152.0	110.0	9.7	140.9	105.0	6.7	130.2	100.0
			60	13.6	131.6	121.0	8.3	120.7	116.0	5.7	110.5	111.0
			80	11.5	111.2	131.0	6.9	100.7	126.0	4.7	90.7	122.0
		2400	40	17.3	167.7	104.0	10.6	155.0	99.0	7.4	142.9	95.0
			60	15.0	145.1	116.0	9.1	132.8	111.0	6.2	121.0	106.0
			80	12.6	122.6	127.0	7.6	110.6	122.0	5.1	99.3	118.0
6	TWE073E	1920	40	19.5	190.3	131.8	12.0	175.7	124.7	8.5	165.9	120.0
			60	16.8	164.0	139.1	10.4	152.3	133.4	7.3	142.5	128.7
			80	14.5	141.5	148.2	8.8	128.8	142.1	5.9	115.2	135.5
		2400	40	21.6	209.2	120.0	13.4	195.7	115.0	9.4	182.7	110.0
			60	18.7	181.5	130.0	11.6	168.3	125.0	8.0	155.6	120.0
			80	15.9	153.9	139.0	9.7	141.0	134.0	6.6	128.6	129.0
		2880	40	23.9	233.3	115.0	14.7	215.2	109.2	10.3	201.1	104.6
			60	20.6	201.1	124.6	12.7	185.9	119.8	8.8	171.8	115.2
			80	17.7	172.8	135.5	10.6	155.2	129.9	7.1	138.6	124.6

Table 73. Hot water heating coil capacity – standard/SZVAV/2-Speed VFD air handler (continued)

Tons	Unit Model No.	Airflow (CFM)	Enter Air Temp (°F)	Entering Water Temperature (°F)								
				210								
				Water Temperature Drop (°F)								
				20			30			40		
				GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT
7.5	TWE090D, TWE090E	2400	40	21.6	209.2	120.0	13.4	195.7	115.0	9.4	182.7	110.0
			60	18.7	181.5	130.0	11.6	168.3	125.0	8.0	155.6	120.0
			80	15.9	153.9	139.0	9.7	141.0	134.0	6.6	28.6	129.0
		3000	40	24.5	237.4	113.0	15.2	221.5	108.0	10.6	206.2	103.0
			60	21.2	205.8	123.0	13.1	190.3	118.0	9.0	175.4	114.0
			80	18.0	174.4	134.0	10.9	159.2	129.0	7.4	144.7	124.0
		3600	40	27.1	262.3	107.0	16.8	244.1	102.0	11.7	226.8	98.0
			60	23.4	227.3	118.0	14.4	209.6	114.0	9.9	192.6	109.0
			80	19.8	192.4	129.0	12.0	175.2	125.0	8.2	158.7	121.0
10	TWE120D, TWE120E	3200	40	31.7	307.4	129.0	19.2	279.9	121.0	13.0	252.6	113.0
			60	27.4	265.1	136.0	16.4	238.2	129.0	10.9	211.0	121.0
			80	23.0	223.0	144.0	13.5	196.5	137.0	8.7	169.1	129.0
		4000	40	36.1	350.2	121.0	21.8	317.6	113.0	14.7	285.5	106.0
			60	31.1	301.7	130.0	18.5	269.9	122.0	12.3	238.2	115.0
			80	26.1	253.4	138.0	15.3	222.3	131.0	9.8	190.8	124.0
		4800	40	40.0	387.4	114.0	24.1	350.3	107.0	16.2	313.9	100.0
			60	34.4	333.6	124.0	20.4	297.3	117.0	13.5	261.7	110.0
			80	28.9	279.9	134.0	16.8	244.6	127.0	10.8	209.5	120.0
12.5	TWE150E	4000	40	40.1	402.7	132.8	24.9	374.7	126.4	17.2	346.1	119.8
			60	34.7	349.1	140.5	21.3	321.3	134.1	14.6	292.7	127.5
			80	29.4	295.5	148.1	17.8	267.8	141.7	11.9	239.2	135.1
		5000	40	45.5	457.6	124.4	28.2	424.6	118.3	19.5	391.0	112.1
			60	39.4	396.4	133.1	24.1	363.7	127.1	16.5	330.2	120.9
			80	33.4	335.3	141.8	20.1	302.7	135.8	13.4	269.4	129.7
		6000	40	50.2	504.5	117.5	31.0	467.1	111.8	21.4	429.1	105.9
			60	43.5	436.8	127.1	26.5	399.7	121.4	18.0	362.0	115.6
			80	36.7	369.2	136.7	22.1	332.4	131.1	14.7	294.9	125.3
15	TWE180E	4800	40	45.1	437.0	124.0	27.8	404.7	118.0	19.2	372.9	112.0
			60	39.0	378.3	133.0	23.8	346.6	127.0	16.2	315.2	120.0
			80	33.0	319.8	141.0	19.8	288.6	135.0	13.3	257.5	129.0
		6000	40	51.3	496.8	116.0	31.5	458.9	110.0	21.7	421.5	105.0
			60	44.4	429.9	126.0	27.0	392.6	120.0	18.3	355.8	115.0
			80	37.5	363.0	136.0	22.4	326.5	130.0	14.9	290.3	125.0
		7200	40	56.7	549.8	110.0	34.8	506.7	105.0	23.9	464.3	99.0
			60	49.1	475.5	121.0	29.8	433.1	115.0	20.2	391.5	110.0
			80	41.4	401.3	131.0	24.7	359.8	126.0	16.4	319.0	121.0
20	TWE240E	6400	40	59.5	576.5	123.0	37.0	538.3	118.0	25.8	500.5	112.0
			60	51.6	500.0	132.0	31.8	462.4	127.0	21.9	425.0	121.0
			80	43.7	423.7	141.0	26.6	386.6	136.0	18.0	349.7	130.0
		8000	40	67.6	654.9	115.0	41.9	610.0	110.0	29.1	565.7	105.0
			60	58.6	567.8	125.0	36.0	523.6	120.0	24.7	479.9	115.0
			80	49.6	480.7	135.0	30.0	437.3	130.0	20.3	394.2	125.0
		9600	40	74.8	724.6	110.0	46.3	673.8	105.0	32.1	623.6	100.0
			60	64.8	628.0	120.0	39.7	578.0	115.0	27.2	528.4	111.0
			80	54.8	531.4	131.0	33.1	482.2	126.0	22.3	433.5	122.0



Performance Data

Table 73. Hot water heating coil capacity – standard/SZVAV/2-Speed VFD air handler (continued)

Tons	Unit Model No.	Airflow (CFM)	Enter Air Temp (°F)	Entering Water Temperature (°F)								
				210								
				Water Temperature Drop (°F)								
				20			30			40		
				GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT
25	TWE300E	8000	40	65.4	656.9	115.7	40.7	613.8	110.8	28.4	570.1	105.7
			60	56.7	569.9	125.7	35.0	527.2	120.8	24.1	483.8	115.8
			80	48.1	483.1	135.7	29.3	440.6	130.8	19.8	397.3	125.8
		10000	40	72.9	732.5	107.5	45.3	683.0	103.0	31.5	633.0	98.4
			60	63.2	635.2	118.6	38.9	586.2	114.1	26.7	536.5	109.5
			80	53.5	538.0	129.6	32.5	489.4	125.1	21.9	440.0	120.6
		12000	40	79.2	795.5	101.1	49.2	740.5	96.9	34.1	685.1	92.7
			60	68.6	689.5	113.0	42.2	635.1	108.8	28.9	580.3	104.6
			80	58.1	583.7	124.9	35.2	529.9	120.7	23.7	475.4	116.5

Notes:

1. SZVAV/2-Speed VFD available for 6–25 ton only.
2. GPM = Gallons Per Minute
3. MBh Capacity: BTU/HR/1000
4. LAT = Leaving Air Temperature (°F)

Table 74. Hot water heating coil - water side pressure drop @ 180°F entering water temperature - standard/SZVAV/2-Speed VFD air handler

Tons	Unit Model No.	Gallons Per Minute (GPM)																		
		2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38
		Pressure Drop (Ft. of Water)																		
5	TWE061D,E	0.02	0.70	0.15	0.26	0.40	0.56	0.75	0.97	1.22	1.49	1.78	-	-	-	-	-	-	-	-
6	TWE073E	-	-	0.06	0.11	0.16	0.23	0.30	0.39	0.48	0.58	0.70	0.82	0.95	1.09	1.24	1.40	1.57	-	-
7.5	TWE090D,E	-	-	0.06	0.11	0.16	0.23	0.30	0.39	0.48	0.58	0.70	0.82	0.95	1.09	1.24	1.40	1.57	-	-
10	TWE120D,E	-	-	-	0.06	0.09	0.13	0.17	0.22	0.27	0.33	0.39	0.46	0.54	0.62	0.70	0.79	0.89	0.99	1.10
12.5	TWE150E	-	-	-	-	0.11	0.15	0.20	0.26	0.32	0.39	0.47	0.55	0.64	0.73	0.83	0.94	1.05	1.17	1.29
15	TWE180E	-	-	-	-	0.11	0.15	0.20	0.26	0.32	0.39	0.47	0.55	0.64	0.73	0.83	0.94	1.05	1.17	1.29
20	TWE240E	-	-	-	-	-	0.17	0.23	0.30	0.37	0.45	0.53	0.63	0.72	0.83	0.94	1.06	1.19	1.32	1.46
25	TWE300E	-	-	-	-	-	0.17	0.23	0.30	0.37	0.45	0.53	0.63	0.72	0.83	0.94	1.06	1.19	1.32	1.46
Tons	Unit Model No.	Gallons Per Minute (GPM)																		
		40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76
		Pressure Drop (Ft. of Water)																		
5	TWE061D,E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	TWE073E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.5	TWE090D,E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	TWE120D,E	1.21	1.32	1.44	1.57	1.70	1.84	-	-	-	-	-	-	-	-	-	-	-	-	-
12.5	TWE150E	1.42	1.56	1.70	1.85	2.00	2.16	2.33	2.50	2.67	2.86	3.04	3.24	3.44	3.64	3.85	4.07	-	-	-
15	TWE180E	1.42	1.56	1.70	1.85	2.00	2.16	2.33	2.50	2.67	2.86	3.04	3.24	3.44	3.64	3.85	4.07	-	-	-
20	TWE240E	1.61	1.76	1.92	2.09	2.26	2.44	2.63	2.82	3.02	3.22	3.43	3.65	3.87	4.10	4.34	4.58	4.83	5.08	5.34
25	TWE300E	1.61	1.76	1.92	2.09	2.26	2.44	2.63	2.82	3.02	3.22	3.43	3.65	3.87	4.10	4.34	4.58	4.83	5.08	5.34

Note: SZVAV/2-Speed VFD available for 6–25 ton only.

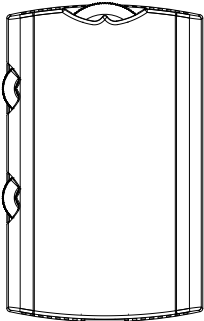


Controls

ReliaTel

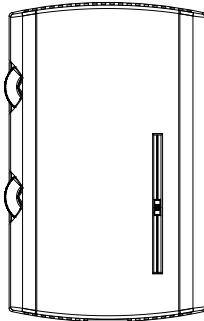
Zone Sensors are the building occupant's comfort control devices. Zone sensors are required for SZVAV applications. The following zone sensor options are available for units with ReliaTel control.

Manual Changeover (BAYSENS106*)



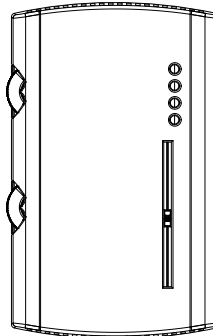
Heat, Cool or Off System Switch. Fan Auto or Off Switch. One temperature setpoint lever.

Manual/Automatic Changeover (BAYSENS108*)



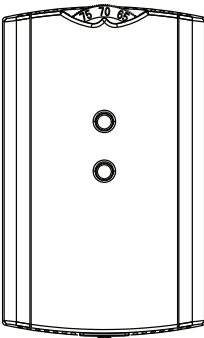
Auto, Heat, Cool or Off System Switch. Fan Auto or Off Switch. Two temperature setpoint levers.

Manual/Automatic Changeover (BAYSENS110*)



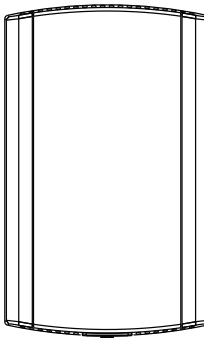
Auto, Heat, Cool or Off System Switch. Fan Auto or Off Switch. Two temperature setpoint levers. Status Indication LED lights, System On, Heat, Cool, or Service.

Integrated Comfort™ System (BAYSENS074*)



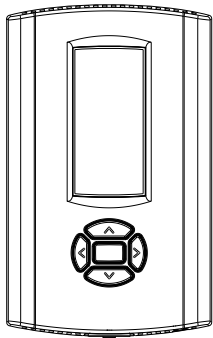
Sensor(s) available with optional temperature adjustment and override buttons to provide central control through a Trane Integrated Comfort™ system.

Remote Sensor (BAYSENS077*)



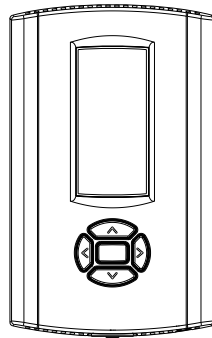
Sensor(s) available for all zone sensors to provide remote sensing capabilities.

Wireless Zone Sensor (BAYSENS050*)



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

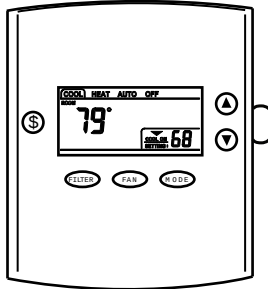
Programmable Night Setback (BAYSENS119*)



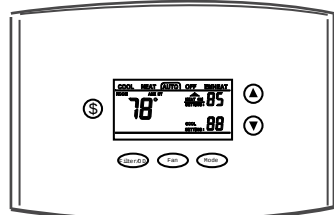
Auto or manual changeover with seven-day programming. Keyboard selection of Heat, Cool, Fan, Auto, EM Heat or On. All sensors have System On, Heat, Cool, Service LED/ indicators as standard. Night Setback Sensors have one (1) Occupied, one (1) Un-occupied, and one (1) Override program per day.

Electromechanical

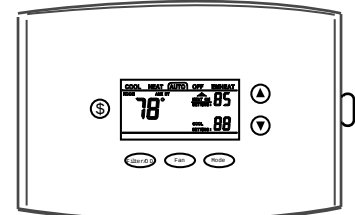
Non-Programmable Thermostats

TCONT200* (1H/1C)**


Auto-changeover Backlit Display &
Keys Filter Reminder Keypad Lock

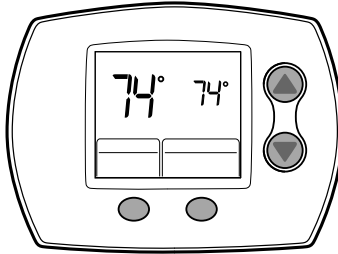
TCONT401* (2H/1C)**


Auto-changeover Backlit Display &
Keys Filter Reminder Keypad Lock
Outdoor Temp Sensor Available

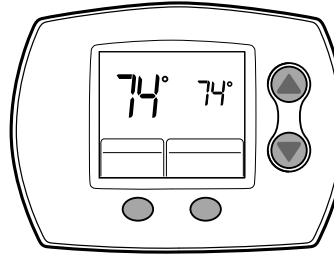
TCONT402* (3H/2C)**


Auto-changeover Backlit Display &
Keys Filter Reminder Keypad Lock
Outdoor Temp Sensor Included

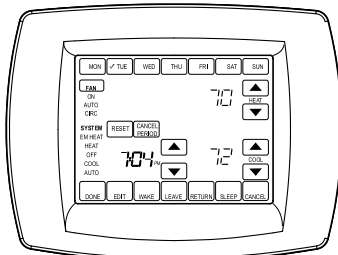
Programmable Thermostats

TCONT600* (1H/1C)**


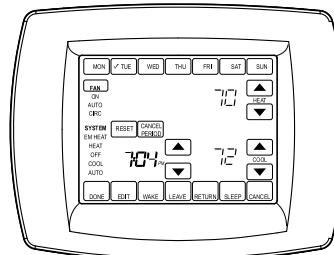
5/2 or 5/1/1 Programming Actual
and Setpoint temps displayed
simultaneously

TCONT602* (2H/2C)**


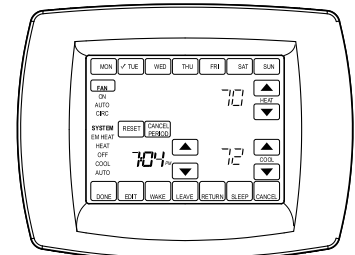
5/2 or 5/1/1 Programming Actual
and Setpoint temps displayed
simultaneously

TCONT800* (1H/1C)**


Interactive touchscreen Large
display Real time clock

TCONT802* (3H/2C)**


Interactive touchscreen Large
display Real time clock

TCONT803* (3H/2C)**


Interactive touchscreen Large
display Real time clock Built-in
humidity sensor

Notes:

- All thermostats may be used with ReliaTel units.
- Thermostats may be used with ReliaTel-equipped Cooling units, but only when matched with Standard Air Handlers (SZVAV Air Handlers excluded).



Electrical Data

Cooling Condenser

Table 75. Electrical characteristics — compressor and condenser fan motors — 60 Hz

Tons	Unit Model Number	Compressor Motor					Condenser Fan Motor				
		No.	Volts	Phase	Amps		No.	Volts	Phase	Amps	
					RLA (Ea.)	LRA (Ea.)				FLA (Ea.)	LRA (Ea.)
6	TTA073G3	1	208-230	3	21.9	136	1	208-230	1	3.1	8.1
	TTA073G4	1	460	3	9.1	66.1	1	460	1	1.6	3.8
	TTA073GK	1	380	3	10.3	83	1	380	1	1.9	4.9
	TTA073GW	1	575	3	7.4	55.3	1	575	1	1.2	3
6	TTA073H3	2	208-230	3	9	71	1	208-230	1	3.1	8.1
	TTA073H4	2	460	3	5.7	38	1	460	1	1.6	3.8
	TTA073HK	2	380	3	5.5	45	1	380	1	1.9	4.9
	TTA073HW	2	575	3	3.8	36.5	1	575	1	1.2	3
7.5	TTA090G3	1	208-230	3	25	164	1	208-230	1	3.1	8.1
	TTA090G4	1	460	3	12.9	100	1	460	1	1.6	3.8
	TTA090GK	1	380	3	13.9	94.3	1	380	1	1.9	4.9
	TTA090GW	1	575	3	10.6	78	1	575	1	1.2	3
7.5	TTA090H3	2	208-230	3	14.6	83.1	1	208-230	1	3.1	8.1
	TTA090H4	2	460	3	6.8	41	1	460	1	1.6	3.8
	TTA090HK	2	380	3	7.6	51.8	1	380	1	1.9	4.9
	TTA090HW	2	575	3	4.9	33	1	575	1	1.2	3
10	TTA120G3	1	208-230	3	33	267	1	208-230	1	5	14.4
	TTA120G4	1	460	3	17	142	1	460	1	2.5	5.8
	TTA120GK	1	380	3	25	160	1	380	1	3.4	7.8
	TTA120GW	1	575	3	16	80	1	575	1	2	5.1
10	TTA120H3	2	208-230	3	17.8	110	1	208-230	1	5	14.4
	TTA120H4	2	460	3	8.6	52	1	460	1	2.5	5.8
	TTA120HK	2	380	3	8.6	51.5	1	380	1	3.4	7.8
	TTA120HW	2	575	3	6.4	38.9	1	575	1	2	5.1
10	TTA120J3	2	208-230	3	16	110	1	208-230	1	5	14.4
	TTA120J4	2	460	3	7.8	52	1	460	1	2.5	5.8
	TTA120JW	2	575	3	5.7	39	1	575	1	2	5.1
12.5	TTA150H3	2	208-230	3	22.4	149	1	208-230	1	5	14.4
	TTA150H4	2	460	3	10.6	75	1	460	1	2.5	5.8
	TTA150HK	2	380	3	11.3	88	1	380	1	3.4	7.8
	TTA150HW	2	575	3	7.7	54	1	575	1	2	5.1
15	TTA180H3	2	208-230	3	25	164	2	208-230	1	5	14.4
	TTA180H4	2	460	3	12.2	100	2	460	1	2.5	5.8
	TTA180HK	2	380	3	13.9	94	2	380	1	3.4	7.8
	TTA180HW	2	575	3	9.2	78	2	575	1	2	5.1
15	TTA180J3	2	208-230	3	25.8	164	2	208-230	1	3.1	8.1
	TTA180J4	2	460	3	12.5	100	2	460	1	1.6	3.8
	TTA180JK	2	380	3	14.3	94	2	380	1	1.9	4.9
	TTA180JW	2	575	3	10.3	78	2	575	1	1.2	3
20	TTA240H3	2	208-230	3	39.1	267	2	208-230	1	5	14.4
	TTA240H4	2	460	3	18.6	142	2	460	1	2.5	5.8
	TTA240HK	2	380	3	22.4	160	2	380	1	3.4	7.8
	TTA240HW	2	575	3	15.4	103	2	575	1	2	5.1

Electrical Data

Table 75. Electrical characteristics — compressor and condenser fan motors — 60 Hz (continued)

Tons	Unit Model Number	Compressor Motor					Condenser Fan Motor				
		No.	Volts	Phase	Amps		No.	Volts	Phase	Amps	
					RLA	LRA				FLA	LRA
					(Ea.)	(Ea.)				(Ea.)	(Ea.)
20	TTA240J3	2	208-230	3	39.1	267	2	208-230	1	5	14.4
	TTA240J4	2	460	3	19.8	142	2	460	1	2.5	5.8
	TTA240JK	2	380	3	22.4	160	2	380	1	3.4	7.8
	TTA240JW	2	575	3	15.8	103	2	575	1	2	5.1
25	TTA300J3	2	208-230	3	41	304	2	208-230	1	5	14.4
	TTA300J4	2	460	3	19.4	147	2	460	1	2.5	5.8
	TTA300JK	2	380	3	23.8	168	2	380	1	3.4	7.8
	TTA300JW	2	575	3	16.7	122	2	575	1	2	5.1

Note: Electrical characteristics reflect nameplate values and are calculated in accordance with cULus specifications.

Table 76. Unit wiring — condensing units — 60 Hz

Tons	Unit Model Number	Unit Operating Voltage Range	Minimum Circuit Ampacity	Maximum Fuse or HACR Circuit Breaker Size
6	TTA073G3	187-253	30.5	50
	TTA073G4	414-506	13.0	20
	TTA073GK	342-418	15.0	20
	TTA073GW	518-632	10.5	15
6	TTA073H3	187-253	24.0	30
	TTA073H4	414-506	15.0	20
	TTA073HK	342-418	15.0	15
	TTA073HW	518-632	10.0	15
7.5	TTA090G3	187-253	34.4	50
	TTA090G4	414-506	17.7	25
	TTA090GK	342-418	20.0	30
	TTA090GW	518-632	14.5	20
7.5	TTA090H3	187-253	36.0	50
	TTA090H4	414-506	16.9	20
	TTA090HK	342-418	20.0	25
	TTA090HW	518-632	12.2	15
10	TTA120G3	187-253	46.3	70
	TTA120G4	414-506	23.5	40
	TTA120GK	342-418	34.7	50
	TTA120GW	518-632	22.0	35
10	TTA120H3	187-253	41.0	50
	TTA120H4	414-506	21.9	25
	TTA120HK	342-418	22.8	30
	TTA120HW	518-632	16.4	20
10	TTA120J3	187-253	41.0	50
	TTA120J4	414-506	20.0	25
	TTA120JW	518-632	15.0	20
12.5	TTA150H3	187-253	56.0	70
	TTA150H4	414-506	27.0	35
	TTA150HK	342-418	29.0	40
	TTA150HW	518-632	20.0	25

Table 76. Unit wiring — condensing units — 60 Hz (continued)

Tons	Unit Model Number	Unit Operating Voltage Range	Minimum Circuit Ampacity	Maximum Fuse or HACR Circuit Breaker Size
15	TTA180H3	187-253	67.0	90
	TTA180H4	414-506	33.0	40
	TTA180HK	342-418	39.0	50
	TTA180HW	518-632	25.0	30
15	TTA180J3	187-253	65.0	80
	TTA180J4	414-506	32.0	40
	TTA180JK	342-418	37.0	50
	TTA180JW	518-632	26.0	35
20	TTA240H3	187-253	98.0	125
	TTA240H4	414-506	47.0	60
	TTA240HK	342-418	58.0	70
	TTA240HW	518-632	39.0	50
20	TTA240J3	187-253	98.0	125
	TTA240J4	414-506	47.0	60
	TTA240JK	342-418	58.0	70
	TTA240JW	518-632	39.0	50
25	TTA300J3	187-253	103.0	125
	TTA300J4	414-506	49.0	60
	TTA300JK	342-418	61.0	80
	TTA300JW	518-632	42.0	50

Notes:

1. Electrical characteristics reflect nameplate values and are calculated in accordance with cULus specifications. 7.5 and 10 ton values are system rated; 12.5 - 25 ton values are condensing unit only rated.
2. HACR type circuit breaker per NEC.

Air Handler (Standard, SZVAV and 2-Speed VFD)

Table 77. Voltage operating range (all air handlers)

Model Number: Digit 8	Electrical Characteristics	Unit Operating Voltage Range
1	208-230/60/1	187-253
3	208-230/60/3	187-253
4	460/60/3	414-506
K	380/60/3	342-418
W	575/60/3	518-632

Table 78. Electrical characteristics — 5-25 ton standard and low static motors — 60 Hz standard air handler

Tons	Unit Model Number	Standard Evaporator Fan Motor								Low Static Evaporator Fan Motor							
		No.	Volts	Phase	Hp	Amps		MCA	MFS	No.	Volts	Phase	Hp	Amps		MCA	MFS
						FLA	LRA							FLA	LRA		
5	TWE061D1, E1	1	208	1	0.75	6.0	41.0	7.5	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE061D1, E1	1	230	1	0.75	5.9	45.0	7.4	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE061D3, E3	1	208	3	0.75	2.5	16.4	3.1	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE061D3, E3	1	230	3	0.75	2.4	16.4	3.0	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE061D4, E4	1	460	3	0.75	1.2	8.2	1.5	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE061DW	1	575	3	0.75	1.3	6.1	1.6	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



Electrical Data

Table 78. Electrical characteristics — 5–25 ton standard and low static motors — 60 Hz standard air handler (continued)

Tons	Unit Model Number	Standard Evaporator Fan Motor								Low Static Evaporator Fan Motor							
		No.	Volts	Phase	Hp	Amps		MCA	MFS	No.	Volts	Phase	Hp	Amps		MCA	MFS
						FLA	LRA							FLA	LRA		
6	TWE073E3	1	208	3	1.5	5.3	34.3	6.6	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE073E3	1	230	3	1.5	5.0	34.3	6.3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE073EK	1	380	3	1.5	3.0	20.2	3.8	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE073E3 ^(a)	1	460	3	1.5	2.5	17.0	3.1	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE073EW	1	575	3	1.5	1.8	13.6	2.3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7.5	TWE090D1, E1	1	208	1	1.5	6.8	31.5	8.5	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE090D1, E1	1	230	1	1.5	6.2	31.5	7.8	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE090D3, E3	1	208	3	1.5	5.3	34.3	6.6	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE090D3, E3	1	230	3	1.5	5.0	34.3	6.3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE090DK, EK	1	380	3	1.5	3.0	20.2	3.8	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE090D3, E3 ^(a)	1	460	3	1.5	2.5	17.0	3.1	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE090DW, EW	1	575	3	1.5	1.8	13.6	2.3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10	TWE120D1, E1	1	208	1	2	8.5	57.4	10.6	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE120D1, E1	1	230	1	2	7.7	57.4	9.6	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE120D3, E3	1	208	3	2	7.0	33.9	9.0	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE120D3, E3	1	230	3	2	6.6	33.9	7.3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE120DK, EK	1	380	3	2	3.3	28.0	4.1	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE120D3, E3 ^(a)	1	460	3	2	3.3	19.0	3.6	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE120DW, EW	1	575	3	2	2.3	15.6	4.0	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12.5	TWE150E3	1	208	3	2	6.0	23.0	7.4	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE150E3	1	230	3	2	5.5	23.0	6.9	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE150EK	1	380	3	2	3.3	28.0	4.1	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE150E3 ^(a)	1	460	3	2	2.8	23.0	3.4	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE150EW	1	575	3	2	2.2	18.0	2.8	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
15	TWE180E3	1	208	3	3	9.4	74.9	11.8	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE180E3	1	230	3	3	9.2	74.9	11.5	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE180EK	1	380	3	5	8.1	63.5	10.1	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE180E3 ^(a)	1	460	3	3	4.6	39.3	5.8	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE180EW	1	575	3	3	3.4	24.6	4.3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20	TWE240E3	1	208	3	5	14.0	90.8	17.5	30	1	208	3	3	9.4	74.9	11.8	25
	TWE240E3	1	230	3	5	13.6	103.0	17.0	30	1	230	3	3	9.2	74.9	11.5	25
	TWE240EK	1	380	3	5	8.1	63.5	10.1	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE240E4	1	460	3	5	6.6	44.8	9.0	15	1	460	3	3	4.6	39.3	5.8	15
	TWE240EW	1	575	3	5	5.3	36.2	6.6	15	1	575	3	3	3.4	24.6	4.3	15
25	TWE300E3	1	208	3	7.5	19.6	150.0	25.0	40	1	208	3	7.5	19.6	150	25	40
	TWE300E3	1	230	3	7.5	17.8	150.0	25.0	40	1	230	3	7.5	17.8	150	25	40
	TWE300EK	1	380	3	7.5	10.9	72.9	13.6	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE300E4	1	460	3	7.5	8.9	75.0	12.0	20	1	460	3	7.5	8.9	75	12	20
	TWE300EW	1	575	3	7.5	7.1	60.0	9.0	15	1	575	3	7.5	7.1	60	9	15

Note: For additional information contact product support.

^(a) Field wired for 460V.

Table 79. Electrical characteristics — 5–25 ton high and ultra-high static motors — 60 Hz standard air handler

Tons	Unit Model Number	High Static Evaporator Fan Motor								Ultra-High Static Evaporator Fan Motor							
		No.	Volts	Phase	Hp	Amps		MCA	MFS	No.	Volts	Phase	Hp	Amps		MCA	MFS
						FLA	LRA							FLA	LRA		
5	TWE061D1, E1	1	208	1	1.5	6.8	31.5	8.5	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE061D1, E1	1	230	1	1.5	6.2	31.5	7.8	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE061D3, E3	1	208	3	1.5	5.3	34.3	6.6	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE061D3, E3	1	230	3	1.5	5	34.3	6.3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE061D4, E4	1	460	3	1.5	2.5	17	3.1	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE061DW	1	575	3	1.5	1.8	13.6	2.3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	TWE073E3	1	208	3	2	7	33.9	7.8	15	1	208	3	3	9.4	74.9	11.8	20
	TWE073E3	1	230	3	2	6.6	33.9	7.3	15	1	230	3	3	9.2	74.9	11.5	20
	TWE073E3 ^(a)	1	460	3	2	3.3	19	5	15	1	460	3	3	4.6	39.3	5.8	15
	TWE073EW	1	575	3	2	2.3	15.6	4	15	1	575	3	3	3.4	24.6	4.3	15
7.5	TWE090D1, E1	1	208	1	2	8.5	57.4	10.6	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE090D1, E1	1	230	1	2	7.7	57.4	9.6	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE090D3, E3	1	208	3	2	7	33.9	7.8	15	1	208	3	3	9.4	74.9	11.8	20
	TWE090D3, E3	1	230	3	2	6.6	33.9	7.3	15	1	230	3	3	9.2	74.9	11.5	20
	TWE090D3, E3 ^(a)	1	460	3	2	3.3	19	5	15	1	460	3	3	4.6	39.3	5.8	15
	TWE090DW, EW	1	575	3	2	2.3	15.6	4	15	1	575	3	3	3.4	24.6	4.3	15
10	TWE120D1, E1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE120D1, E1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE120D3, E3	1	208	3	3	9.4	74.9	11.8	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE120D3, E3	1	230	3	3	9.2	74.9	11.5	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE120D3, E3 ^(a)	1	460	3	3	4.6	39.3	5.8	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE120DW, EW	1	575	3	3	3.4	24.6	4.3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12.5	TWE150E3	1	208	3	3	9.4	74.9	11.8	20	1	208	3	5	14	98	17.5	30
	TWE150E3	1	230	3	3	9.2	74.9	11.5	20	1	230	3	5	13.6	103	17	30
	TWE150E3 ^(a)	1	460	3	3	4.6	39.3	5.8	15	1	460	3	5	6.6	44.8	8.3	15
	TWE150EW	1	575	3	3	3.4	24.6	4.3	15	1	575	3	5	5.2	36.2	6.5	15
15	TWE180E3	1	208	3	5	14	98	17.5	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE180E3	1	230	3	5	13.6	103	17	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE180E3 ^(a)	1	460	3	5	6.6	44.8	8.3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE180EW	1	575	3	5	5.2	36.2	6.5	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20	TWE240E3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	208	3	7.5	19.6	114	25	40
	TWE240E3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	230	3	7.5	17.6	126	22	40
	TWE240E4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	460	3	7.5	9	61.4	11.3	20
	TWE240EW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	575	3	7.5	7.2	49.8	9	15
25	TWE300E3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE300E3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE300E4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE300EW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: For additional information contact product support.

^(a) Field wired for 460V.



Electrical Data

Table 80. Electrical characteristics — standard and oversized motors — 6–25 ton SZVAV and 2-Speed VFD air handler — 60 Hz

Tons	Unit Model Number	Standard Evaporator Fan Motor								High Static Evaporator Fan Motor							
		No.	Volts	Phase	Hp	Amps		MCA	MFS	No.	Volts	Phase	Hp	Amps		MCA	MFS
						FLA	LRA							FLA	LRA		
6	TWE073E3	1	208	3	2	6.2	43.4	8	15	1	208	3	3	9.4	71	12	20
	TWE073E3	1	230	3	2	5.8	48	8	15	1	230	3	3	9.2	64	12	20
	TWE073E4	1	460	3	2	2.9	24	4	15	1	460	3	3	4.6	35.5	6	15
	TWE073EW	1	575	3	2	2.2	20.6	3	15	1	575	3	3	3.7	28.4	5	15
7.5	TWE090E3	1	208	3	2	6.2	43.4	8	15	1	208	3	3	9.4	71	12	20
	TWE090E3	1	230	3	2	5.8	48	8	15	1	230	3	3	9.2	64	12	20
	TWE090E4	1	460	3	2	2.9	24	4	15	1	460	3	3	4.6	35.5	6	15
	TWE090EW	1	575	3	2	2.2	20.6	3	15	1	575	3	3	3.7	28.4	5	15
10	TWE120D3, E3	1	208	3	2	6.2	43.4	8	15	1	208	3	3	9.4	71	12	20
	TWE120D3, E3	1	230	3	2	5.8	48	8	15	1	230	3	3	9.2	64	12	20
	TWE120D4, E4	1	460	3	2	2.9	24	4	15	1	460	3	3	4.6	35.5	6	15
	TWE120DW, EW	1	575	3	2	2.2	20.6	3	15	1	575	3	3	3.7	28.4	5	15
12.5	TWE150E3	1	208	3	2	6.2	43.4	8	15	1	208	3	5	13.4	99.5	17	30
	TWE150E3	1	230	3	2	5.8	48	8	15	1	230	3	5	12.6	110	17	30
	TWE150E4	1	460	3	2	2.9	24	4	15	1	460	3	5	6.3	55	8	15
	TWE150EW	1	575	3	2	2.2	20.6	3	15	1	575	3	5	5.1	44	7	15
15	TWE180E3	1	208	3	3	9.4	71	12	20	1	208	3	5	13.4	99.5	17	30
	TWE180E3	1	230	3	3	9.2	64	12	20	1	230	3	5	12.6	110	17	30
	TWE180E4	1	460	3	3	4.6	35.5	6	15	1	460	3	5	6.3	55	8	15
	TWE180EW	1	575	3	3	3.7	28.4	5	15	1	575	3	5	5.1	44	7	15
20	TWE240E3	1	208	3	5	13.4	99.5	17	30	1	208	3	7.5	19.6	113.4	25	45
	TWE240E3	1	230	3	5	12.6	110	17	30	1	230	3	7.5	17.6	124	25	45
	TWE240E4	1	460	3	5	6.3	55	8	15	1	460	3	7.5	8.8	63	11	15
	TWE240EW	1	575	3	5	5.1	44	7	15	1	575	3	7.5	7.1	50.4	9	15
25	TWE300E3	1	208	3	7.5	19.6	113.4	25	45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE300E3	1	230	3	7.5	17.6	124	25	45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE300E4	1	460	3	7.5	8.8	63	12	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE300EW	1	575	3	7.5	7.1	50.4	9	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1. For additional information contact product support.
2. Not available with 380/60 Hz models.

Table 81. Unit wiring with electric heat (single point connection) — 5-25 ton standard air handlers — 60 Hz

Tons	Used With	Heater Model Number	Heater kW Rating	Unit Power Supply	Control Stages	Minimum Circuit Ampacity	Maximum Fuse or HACR Circuit Breaker Size
5	TWE061D1, TWE061E1	BAYHTRL106*	4.33/5.76	208-230/1/60	1	33.5/37.4	35.0/40.0
		BAYHTRL112*	8.65/11.52		1	59.5/67.4	60.0/70.0
		BAYHTRL117*	12.98/17.28		1	85.5/97.4	90.0/100.0
		BAYHTRL123*	17.31/23.04		2	111.5/127.4 ^(a)	125.0/150.0
5	TWE061D3, TWE061E3	BAYHTRL305*	3.76/5.00	208-230/3/60	1	16.1/18.0	20.0/20.0
		BAYHTRL310*	7.48/9.96		1	29.0/33.0	30.0/35.0
		BAYHTRL315*	11.24/14.96		1	42.2/48.0	45.0/50.0
		BAYHTRL325*	18.72/24.92		2	68.0/77.9 ^(a)	70.0/80.0
5	TWE061D4, TWE061E4	BAYHTRL405*	5.00	460/3/60	1	10.0	15.0
		BAYHTRL410*	9.96		1	17.0	20.0
		BAYHTRL415*	14.96		1	25.0	25.0
		BAYHTRL425*	24.92		2	40.0	40.0
5	TWE061DW	BAYHTRLW05*	5.00	575/3/60	1	8.0	15.0
		BAYHTRLW10*	9.96		1	15.0	15.0
		BAYHTRLW15*	14.96		1	21.0	25.0
		BAYHTRLW25*	24.92		2	33.0	35.0
6	TWE073E3	BAYHTRL305*	3.76/5.00	208-230/3/60	1	19.6/21.3	20.0/25.0
		BAYHTRL310*	7.48/9.96		1	32.5/36.2	35.0/40.0
		BAYHTRL315*	11.24/14.96		1	45.7/51.2	50.0/60.0
		BAYHTRL325*	18.72/24.92		2	71.5/82.0 ^(a)	80.0/90.0
		BAYHTRL335*	26.20/34.88		2	98.7/112 ^(b)	100.0/125.0
6	TWE073E3 ^(c)	BAYHTRL405*	5.00	460/3/60	1	11.0	15.0
		BAYHTRL410*	9.96		1	19.0	20.0
		BAYHTRL415*	14.96		1	26.0	30.0
		BAYHTRL425*	24.92		2	41.0	40.0
		BAYHTRL435*	34.88		2	56.0	60.0
6	TWE073EW	BAYHTRLW05*	5.00	575/3/60	1	11.0	15.0
		BAYHTRLW10*	9.96		1	17.0	20.0
		BAYHTRLW15*	14.96		1	23.0	25.0
		BAYHTRLW25*	24.92		2	36.0	40.0
		BAYHTRLW35*	34.88		2	48.0	50.0
7.5	TWE090D1, TWE090E1	BAYHTRL106*	4.33/5.76	208-230/1/60	1	34.5/37.8	35.0/40.0
		BAYHTRL112*	8.65/11.52		1	60.5/67.8 ^(a)	70.0/70.0
		BAYHTRL117*	12.98/17.28		1	86.5/97.8	90.0/100.0
		BAYHTRL123*	17.31/23.04		2	112.5/127.8 ^(a)	125.0/150.0
		BAYHTRL129*	21.63/28.80		2	138.6/157.8 ^(a)	150.0/175.0
7.5	TWE090D3, TWE090E3	BAYHTRL305*	3.76/5.00	208-230/3/60	1	19.6/21.3	20.0/25.0
		BAYHTRL310*	7.48/9.96		1	32.5/36.2	35.0/40.0
		BAYHTRL315*	11.24/14.96		1	45.7/51.2	50.0/60.0
		BAYHTRL325*	18.72/24.92		2	71.5/82.0 ^(a)	80.0/90.0
		BAYHTRL335*	26.20/34.88		2	98.7/112 ^(b)	100.0/125.0
7.5	TWE090D3, TWE090E3 ^(c)	BAYHTRL405*	5.00	460/3/60	1	11.0	15.0
		BAYHTRL410*	9.96		1	19.0	20.0
		BAYHTRL415*	14.96		1	26.0	25.0
		BAYHTRL425*	24.92		2	41.0	40.0
		BAYHTRL435*	34.88		2	56.0	60.0



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Table 81. Unit wiring with electric heat (single point connection) — 5-25 ton standard air handlers — 60 Hz (continued)

Tons	Used With	Heater Model Number	Heater kW Rating	Unit Power Supply	Control Stages	Minimum Circuit Ampacity	Maximum Fuse or HACR Circuit Breaker Size
7.5	TWE090DW, TWE090EW	BAYHTRLW05*	5.00	575/3/60	1	11.0	15.0
		BAYHTRLW10*	9.96		1	17.0	20.0
		BAYHTRLW15*	14.96		1	23.0	25.0
		BAYHTRLW25*	24.92		2	36.0	40.0
		BAYHTRLW35*	34.88		2	48.0	50.0
10	TWE120D1, TWE120E1	BAYHTRL106*	4.33/5.76	208-230/1/60	1	36.6/39.6	40.0/45.0
		BAYHTRL112*	8.65/11.52		1	62.6/69.6 ^(a)	70.0/80.0
		BAYHTRL117*	12.98/17.28		1	88.6/99.6	90.0/110.0
		BAYHTRL123*	17.31/23.04		2	114.6/129.6 ^(a)	125.0/150.0
		BAYHTRL129*	21.63/28.80		2	140.7/159.6 ^(a)	150.0/175.0
10	TWE120D3, TWE120E3	BAYHTRL305*	3.76/5.00	208-230/3/60	1	21.0/23.0	25.0/25.0
		BAYHTRL310*	7.48/9.96		1	34.0/38.0	35.0/40.0
		BAYHTRL315*	11.24/14.96		1	47.0/53.0	50.0/60.0
		BAYHTRL325*	18.72/24.92		2	73.0/83.0 ^(a)	80.0/90.0
		BAYHTRL335*	26.20/34.88		2	98.7/113.0 ^(b)	100.0/125.0
10	TWE120D3 ^(c) , TWE120E3 ^(c)	BAYHTRL405*	5.00	460/3/60	1	12.0	15.0
		BAYHTRL410*	9.96		1	20.0	20.0
		BAYHTRL415*	14.96		1	27.0	30.0
		BAYHTRL425*	24.92		2	42.0	45.0
		BAYHTRL435*	34.88		2	57.0	60.0
10	TWE120DW, TWE120EW	BAYHTRLW05*	5.00	575/3/60	1	10.0	15.0
		BAYHTRLW10*	9.96		1	16.0	15.0
		BAYHTRLW15*	14.96		1	22.0	25.0
		BAYHTRLW25*	24.92		2	35.0	35.0
		BAYHTRLW35*	34.88		2	47.0	50.0
12.5	TWE150E3	BAYHTRM310A	7.51/10.00	208-230/3/60	1	33.5/36.9	35/40
		BAYHTRM320A	14.96/19.92		1	59.3/66.8	60/70
		BAYHTRM330A	22.47/29.92		2	85.5/96.8	90/100
		BAYHTRM350A	37.44/49.84		2	137.3/156.7	150/175
12.5	TWE150E3 ^(c)	BAYHTRM410*	10.00	460/3/60	1	19.0	20.0
		BAYHTRM420*	19.92		1	34.0	35.0
		BAYHTRM430*	29.92		2	49.0	50.0
		BAYHTRM450*	49.84		2	79.0	80.0
12.5	TWE150EW	BAYHTRMW10*	10.00	575/3/60	1	15.0	20.0
		BAYHTRMW20*	19.92		1	27.0	30.0
		BAYHTRMW30*	29.92		2	39.0	40.0
		BAYHTRMW50*	49.84		2	63.0	70.0
15	TWE180E3	BAYHTRM310*	7.51/10.00	208-230/3/60	1	37.8/41.6	40.0/45.0
		BAYHTRM320*	14.96/19.92		1	63.7/71.4	70.0/80.0
		BAYHTRM330*	22.47/29.92		2	89.8/101.5	90.0/110.0
		BAYHTRM350*	37.44/49.84		2	141.6/161.4 ^(b)	150.0/175.0
15	TWE180E3 ^(c)	BAYHTRM410*	10.00	460/3/60	1	21.0	25.0
		BAYHTRM420*	19.92		1	36.0	40.0
		BAYHTRM430*	29.92		2	51.0	60.0
		BAYHTRM450*	49.84		2	81.0	90.0

Table 81. Unit wiring with electric heat (single point connection) — 5-25 ton standard air handlers — 60 Hz (continued)

Tons	Used With	Heater Model Number	Heater kW Rating	Unit Power Supply	Control Stages	Minimum Circuit Ampacity	Maximum Fuse or HACR Circuit Breaker Size
15	TWE180EW	BAYHTRMW10*	10.00	575/3/60	1	17.0	20.0
		BAYHTRMW20*	19.92		1	30.0	30.0
		BAYHTRMW30*	29.92		2	42.0	45.0
		BAYHTRMW50*	49.84		2	67.0	70.0
20	TWE240E3	BAYHTRM310*	7.51/10.00	208-230/3/60	1	44.1/49.0	50.0/50.0
		BAYHTRM320*	14.96/19.92		1	71.0/79.0	80.0/80.0
		BAYHTRM330*	22.47/29.92		2	97.0/109.0	100.0/110.0
		BAYHTRM350*	37.44/49.84		2	149.0/169.0 ^(b)	150.0/175.0
20	TWE240E4	BAYHTRM410*	10.00	460/3/60	1	24.0	25.0
		BAYHTRM420*	19.92		1	39.0	40.0
		BAYHTRM430*	29.92		2	54.0	60.0
		BAYHTRM450*	49.84		2	84.0	90.0
20	TWE240EW	BAYHTRMW10*	10.00	575/3/60	1	20.0	25.0
		BAYHTRMW20*	19.92		1	32.0	35.0
		BAYHTRMW30*	29.92		2	45.0	45.0
		BAYHTRMW50*	49.84		2	70.0	70.0
25	TWE300E3	BAYHTRM310*	7.51/10	208-230/3/60	1	51.0/53.0	60.0/60.0
		BAYHTRM320*	14.96/19.92		1	77.0/83.0	85.0/90.0
		BAYHTRM330*	22.47/29.92		2	103.0/113.0	110.0/125.0
		BAYHTRM350*	37.44/49.84		2	155.0/173.0	175.0/175.0
25	TWE300E4	BAYHTRM410*	10.00	460/3/60	1	27.0	30.0
		BAYHTRM420*	19.92		1	42.0	45.0
		BAYHTRM430*	29.92		2	57.0	60.0
		BAYHTRM450*	49.84		2	87.0	90.0
25	TWE300EW	BAYHTRMW10*	10.00	575/3/60	1	22.0	25.0
		BAYHTRMW20*	19.92		1	34.0	35.0
		BAYHTRMW30*	29.92		2	47.0	50.0
		BAYHTRMW50*	49.84		2	72.0	80.0

Notes:

1. kW ratings are at: 208/240V for 208-230V air handlers; 480V for 460V air handlers; 600V for 575V air handlers. For other than rated voltage, capacity = (voltage/rated voltage)² x rated capacity.
2. Any power supply and circuits must be wired and protected in accordance with local codes.
3. Electric heat not available with 380/60 Hz models.
4. The HACR circuit breaker is for U.S.A. installations only.

^(a) Field wire must be rated at least 75°C.

^(b) Field wire must be rated at least 90°C.

^(c) With motor field wired for 460V.

Table 82. Unit wiring with electric heat (single point connection) — 6-25 ton SZVAV and 2-Speed VFD air handlers — 60 Hz

Tons	Used With	Heater Model Number	Heater KW Rating	Unit Power Supply	Control Stages	Minimum Circuit Ampacity	Maximum Fuse or HACR Circuit Breaker Size
6	TWE073E3*3	BAYHTRL305*	3.76/5.00	208-230/3/60	1	21/23	25/25
		BAYHTRL310*	7.48/9.96		1	34/38	35/40
		BAYHTRL315*	11.24/14.96		1	47/53	50/60
		BAYHTRL325*	18.72/24.92		2	73/83	80/90
		BAYHTRL335*	26.20/34.88		2	99/113	100/125



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Table 82. Unit wiring with electric heat (single point connection) — 6-25 ton SZVAV and 2-Speed VFD air handlers — 60 Hz (continued)

6	TWE073E3*4	BAYHTRL305*	3.76/5.00	208-230/3/60	1	25/27	30/30
		BAYHTRL310*	7.48/9.96		1	38/42	40/45
		BAYHTRL315*	11.24/14.96		1	51/57	60/60
		BAYHTRL325*	18.72/24.92		2	77/87	80/90
		BAYHTRL335*	26.20/34.88		2	103/117	110/125
6	TWE073E4*3	BAYHTRL405*	5.00	460/3/60	1	12	15
		BAYHTRL410*	9.96		1	19	20
		BAYHTRL415*	14.96		1	27	30
		BAYHTRL425*	24.92		2	42	45
		BAYHTRL435*	34.88		2	57	60
6	TWE073E4*4	BAYHTRL405*	5.00	460/3/60	1	14	15
		BAYHTRL410*	9.96		1	21	25
		BAYHTRL415*	14.96		1	29	30
		BAYHTRL425*	24.92		2	44	45
		BAYHTRL435*	34.88		2	59	60
6	TWE073EW*3	BAYHTRLW05*	5.00	575/3/60	1	9	15
		BAYHTRLW10*	9.96		1	16	20
		BAYHTRLW15*	14.96		1	22	25
		BAYHTRLW25*	24.92		2	34	35
		BAYHTRLW35*	34.88		2	47	50
6	TWE073EW*4	BAYHTRLW05*	5.00	575/3/60	1	11	15
		BAYHTRLW10*	9.96		1	18	20
		BAYHTRLW15*	14.96		1	24	25
		BAYHTRLW25*	24.92		2	36	40
		BAYHTRLW35*	34.88		2	49	50
7.5	TWE090E3*3	BAYHTRL305*	3.76/5.00	208-230/3/60	1	21/23	25/25
		BAYHTRL310*	7.48/9.96		1	34/38	35/40
		BAYHTRL315*	11.24/14.96		1	47/53	50/60
		BAYHTRL325*	18.72/24.92		2	73/83	80/90
		BAYHTRL335*	26.20/34.88		2	99/113	100/125
7.5	TWE090E3*4	BAYHTRL305*	3.76/5.00	208-230/3/60	1	25/27	30/30
		BAYHTRL310*	7.48/9.96		1	38/42	40/45
		BAYHTRL315*	11.24/14.96		1	51/57	60/60
		BAYHTRL325*	18.72/24.92		2	77/87	80/90
		BAYHTRL335*	26.20/34.88		2	103/117	110/125
7.5	TWE090E4*3	BAYHTRL405*	5.00	460/3/60	1	12	15
		BAYHTRL410*	9.96		1	19	20
		BAYHTRL415*	14.96		1	27	30
		BAYHTRL425*	24.92		2	42	45
		BAYHTRL435*	34.88		2	57	60
7.5	TWE090E4*4	BAYHTRL405*	5.00	460/3/60	1	14	15
		BAYHTRL410*	9.96		1	21	25
		BAYHTRL415*	14.96		1	29	30
		BAYHTRL425*	24.92		2	44	45
		BAYHTRL435*	34.88		2	59	60
7.5	TWE090EW*3	BAYHTRLW05*	5.00	575/3/60	1	9	15
		BAYHTRLW10*	9.96		1	16	20
		BAYHTRLW15*	14.96		1	22	25
		BAYHTRLW25*	24.92		2	34	35
		BAYHTRLW35*	34.88		2	47	50

Table 82. Unit wiring with electric heat (single point connection) — 6-25 ton SZVAV and 2-Speed VFD air handlers — 60 Hz (continued)

7.5	TWE090EW*4	BAYHTRLW05*	5.00	575/3/60	1	11	15
		BAYHTRLW10*	9.96		1	18	20
		BAYHTRLW15*	14.96		1	24	25
		BAYHTRLW25*	24.92		2	36	40
		BAYHTRLW35*	34.88		2	49	50
10	TWE120D3*3, E3*3	BAYHTRL305*	3.76/5.00	208-230/3/60	1	21/23	25/25
		BAYHTRL310*	7.48/9.96		1	34/38	35/40
		BAYHTRL315*	11.24/14.96		1	47/53	50/60
		BAYHTRL325*	18.72/24.92		2	73/83	80/90
		BAYHTRL335*	26.20/34.88		2	99/113	100/125
10	TWE120D3*4, E3*4	BAYHTRL305*	3.76/5.00	208-230/3/60	1	25/27	30/30
		BAYHTRL310*	7.48/9.96		1	38/42	40/45
		BAYHTRL315*	11.24/14.96		1	51/57	60/60
		BAYHTRL325*	18.72/24.92		2	77/87	80/90
		BAYHTRL335*	26.20/34.88		2	103/117	110/125
10	TWE120D4*3, E4*3	BAYHTRL405*	5.00	460/3/60	1	12	15
		BAYHTRL410*	9.96		1	19	20
		BAYHTRL415*	14.96		1	27	30
		BAYHTRL425*	24.92		2	42	45
		BAYHTRL435*	34.88		2	57	60
10	TWE120D4*4, E4*4	BAYHTRL405*	5.00	460/3/60	1	14	15
		BAYHTRL410*	9.96		1	21	25
		BAYHTRL415*	14.96		1	29	30
		BAYHTRL425*	24.92		2	44	45
		BAYHTRL435*	34.88		2	59	60
10	TWE120DW*3, EW*3	BAYHTRLW05*	5.00	575/3/60	1	9	15
		BAYHTRLW10*	9.96		1	16	20
		BAYHTRLW15*	14.96		1	22	25
		BAYHTRLW25*	24.92		2	34	35
		BAYHTRLW35*	34.88		2	47	50
10	TWE120DW*4, EW*4	BAYHTRLW05*	5.00	575/3/60	1	11	15
		BAYHTRLW10*	9.96		1	18	20
		BAYHTRLW15*	14.96		1	24	25
		BAYHTRLW25*	24.92		2	36	40
		BAYHTRLW35*	34.88		2	49	50
12.5	TWE150E3*3	BAYHTRM310*	7.51/10.00	208-230/3/60	1	34/38	35/40
		BAYHTRM320*	14.96/19.92		1	60/68	60/70
		BAYHTRM330*	22.47/29.92		2	86/98	90/100
		BAYHTRM350*	37.44/49.84		2	138/158	150/175
12.5	TWE150E3*4	BAYHTRM310*	7.51/10.00	208-230/3/60	1	43/47	45/50
		BAYHTRM320*	14.96/19.92		1	69/77	70/80
		BAYHTRM330*	22.47/29.92		2	95/107	100/110
		BAYHTRM350*	37.44/49.84		2	147/167	150/175
12.5	TWE150E4*3	BAYHTRM410*	10.00	460/3/60	1	19	20
		BAYHTRM420*	19.92		1	34	35
		BAYHTRM430*	29.92		2	49	50
		BAYHTRM450*	49.84		2	79	80



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Table 82. Unit wiring with electric heat (single point connection) — 6-25 ton SZVAV and 2-Speed VFD air handlers — 60 Hz (continued)

12.5	TWE150E4*4	BAYHTRM410*	10.00	460/3/60	1	23	25
		BAYHTRM420*	19.92		1	38	40
		BAYHTRM430*	29.92		2	53	60
		BAYHTRM450*	49.84		2	83	90
12.5	TWE150EW*3	BAYHTRMW10*	10.00	575/3/60	1	16	20
		BAYHTRMW20*	19.92		1	28	30
		BAYHTRMW30*	29.92		2	41	45
		BAYHTRMW50*	49.84		2	66	70
12.5	TWE150EW*4	BAYHTRMW10*	10.00	575/3/60	1	19	20
		BAYHTRMW20*	19.92		1	32	35
		BAYHTRMW30*	29.92		2	44	45
		BAYHTRMW50*	49.84		2	69	70
15	TWE180E3*3	BAYHTRM310*	7.51/10.00	208-230/3/60	1	38/42	40/45
		BAYHTRM320*	14.96/19.92		1	64/72	70/80
		BAYHTRM330*	22.47/29.92		2	90/102	90/110
		BAYHTRM350*	37.44/49.84		2	142/162	150/175
15	TWE180E3*4	BAYHTRM310*	7.51/10.00	208-230/3/60	1	43/47	45/50
		BAYHTRM320*	14.96/19.92		1	69/77	70/80
		BAYHTRM330*	22.47/29.92		2	95/107	100/110
		BAYHTRM350*	37.44/49.84		2	147/167	150/175
15	TWE180E4*3	BAYHTRM410*	10.00	460/3/60	1	21	25
		BAYHTRM420*	19.92		1	36	40
		BAYHTRM430*	29.92		2	51	60
		BAYHTRM450*	49.84		2	81	90
15	TWE180E4*4	BAYHTRM410*	10.00	460/3/60	1	23	25
		BAYHTRM420*	19.92		1	38	40
		BAYHTRM430*	29.92		2	53	60
		BAYHTRM450*	49.84		2	83	90
15	TWE180EW*3	BAYHTRMW10*	10.00	575/3/60	1	18	20
		BAYHTRMW20*	19.92		1	30	30
		BAYHTRMW30*	29.92		2	43	45
		BAYHTRMW50*	49.84		2	68	70
15	TWE180EW*4	BAYHTRMW10*	10.00	575/3/60	1	19	20
		BAYHTRMW20*	19.92		1	32	35
		BAYHTRMW30*	29.92		2	44	45
		BAYHTRMW50*	49.84		2	69	70
20	TWE240E3*3	BAYHTRM310*	7.51/10.00	208-230/3/60	1	43/47	45/50
		BAYHTRM320*	14.96/19.92		1	69/77	70/80
		BAYHTRM330*	22.47/29.92		2	95/107	100/110
		BAYHTRM350*	37.44/49.84		2	147/167	150/175
20	TWE240E3*4	BAYHTRM310*	7.51/10.00	208-230/3/60	1	51/55	60/60
		BAYHTRM320*	14.96/19.92		1	77/85	80/90
		BAYHTRM330*	22.47/29.92		2	103/115	110/125
		BAYHTRM350*	37.44/49.84		2	155/175	175/175
20	TWE240E4*3	BAYHTRM410*	10.00	460/3/60	1	23	25
		BAYHTRM420*	19.92		1	38	40
		BAYHTRM430*	29.92		2	53	60
		BAYHTRM450*	49.84		2	83	90

Table 82. Unit wiring with electric heat (single point connection) — 6-25 ton SZVAV and 2-Speed VFD air handlers — 60 Hz (continued)

20	TWE240E4*4	BAYHTRM410*	10.00	460/3/60	1	26	30
		BAYHTRM420*	19.92		1	41	45
		BAYHTRM430*	29.92		2	56	60
		BAYHTRM450*	49.84		2	86	90
20	TWE240EW*3	BAYHTRMW10*	10.00	575/3/60	1	19	20
		BAYHTRMW20*	19.92		1	32	35
		BAYHTRMW30*	29.92		2	44	45
		BAYHTRMW50*	49.84		2	69	70
20	TWE240EW*4	BAYHTRMW10*	10.00	575/3/60	1	22	25
		BAYHTRMW20*	19.92		1	34	35
		BAYHTRMW30*	29.92		2	47	50
		BAYHTRMW50*	49.84		2	72	80
25	TWE300E3*3	BAYHTRM310*	7.51/10.00	208-230/3/60	1	51/55	60/60
		BAYHTRM320*	14.96/19.92		1	77/85	80/90
		BAYHTRM330*	22.47/29.92		2	103/115	110/125
		BAYHTRM350*	37.44/49.84		2	155/175	175/175
25	TWE300E4*3	BAYHTRM410*	10.00	460/3/60	1	26	30
		BAYHTRM420*	19.92		1	41	45
		BAYHTRM430*	29.92		2	56	60
		BAYHTRM450*	49.84		2	86	90
25	TWE300EW*3	BAYHTRMW10*	10.00	575/3/60	1	22	25
		BAYHTRMW20*	19.92		1	34	35
		BAYHTRMW30*	29.92		2	47	50
		BAYHTRMW50*	49.84		2	72	80

Notes:

1. kW ratings are at: 208/240V for 208-230V air handlers; 480V for 460V air handlers; 600V for 575V air handlers. For other than rated voltage, capacity = (voltage/rated voltage)² x rated capacity.
2. Any power supply and circuits must be wired and protected in accordance with local codes.
3. Electric heat not available with 380/60 Hz models.
4. The HACR circuit breaker is for U.S.A. installations only.

Jobsite Connections

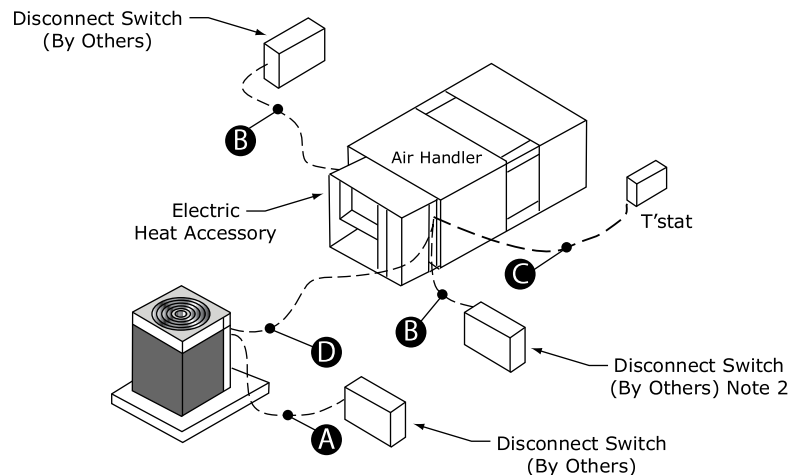
Electromechanical Controls

Wiring shown with dashed lines is to be furnished and installed by the customer. All customer supplied wiring must be copper only and must conform to NEC and local electrical codes. Codes may require line of sight between disconnect switch and unit.

Note: When electric heater accessory is used, single point power entry or dual point power entry is field optional. Single point power entry option is through electric heater only.

Important: For the EDC switch to be functional and thereby facilitate reliable unit operation, make the EDC connections from the indoor to the outdoor control boxes.

Figure 25. Electromechanical jobsite connections



- A. 3 power wires, line voltage for 3 phase, (2 power wires for single phase)
- B. 3 power wires, line voltage for 3 phase, (2 power wires for single phase)
- C. Cooling only thermostat: 3 to 7 wires depending on stages of electric heat
- D. 3 to 7 wires depending on type of outdoor unit(s)

ReliaTel Controls

Wiring shown with dashed lines is to be furnished and installed by the customer. All customer supplied wiring must be copper only and must conform to NEC and local electrical codes. Codes may require line of sight between disconnect switch and unit.

Notes:

1. When electric heater accessory is used, single point power entry or dual point power entry is field optional. Single point power entry option is through electric heater only.
2. ***Choose only one of the following; Thermostat, Zone Sensor, or NSB Panel.

Important: For the EDC switch to be functional and thereby facilitate reliable unit operation, make the EDC connections from the indoor to the outdoor control boxes.

The diagram illustrates the wiring for a typical electric heat system. It features an **Air Handler** with an **Electric Heat Accessory** installed. The components and their connections are as follows:

- Disconnect Switch (By Others) Note 2**: Connected to the power source and the Air Handler.
- Electric Heat Accessory**: The central component that receives power and controls the heat.
- Disconnect Switch (By Others) Note 2**: A second switch connected to the Electric Heat Accessory.
- Disconnect Switch (By Others)**: A third switch connected to the Electric Heat Accessory.
- T'stat** (Thermostat): Connected to the Electric Heat Accessory.
- Zone Sensor**: Connected to the Electric Heat Accessory.
- NSB Panel** (Non-Sparking Panel): Connected to the Electric Heat Accessory.

The connections are indicated by dashed lines and labeled with letters A through F.

- A. 3 power wires, line voltage for 3 phase, (2 power wires for single phase)
- B. 3 power wires, line voltage for 3 phase, (2 power wires for single phase)
- C. Cooling only thermostat: 3 to 7 wires depending on stages of electric heat
- D. 3 to 7 wires depending on type of outdoor unit(s)
- E. Zone Sensor: 4 to 10 wires depending on zone sensor model^(a)
- F. Night Setback Panel: 7 wires

(a) For SZVAV air handlers: 4 additional wires are required (2 of which require twisted pair or shielded wire) in order to make connections between ReliaTel boards in the condenser and air handler.

Dimensional Data

Cooling Condenser

Figure 27. 6-7.5 ton condensing unit, single compressor, microchannel

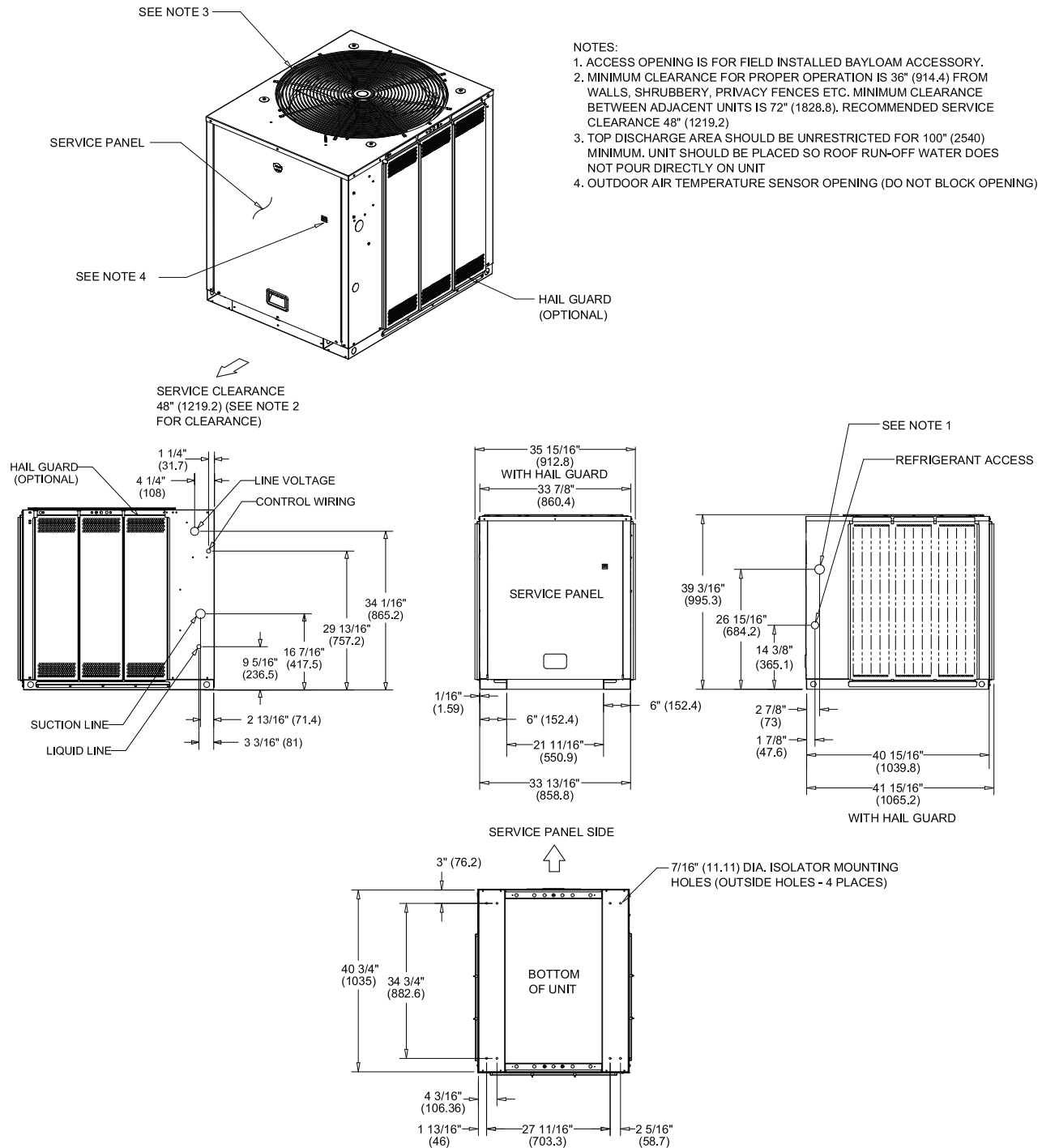
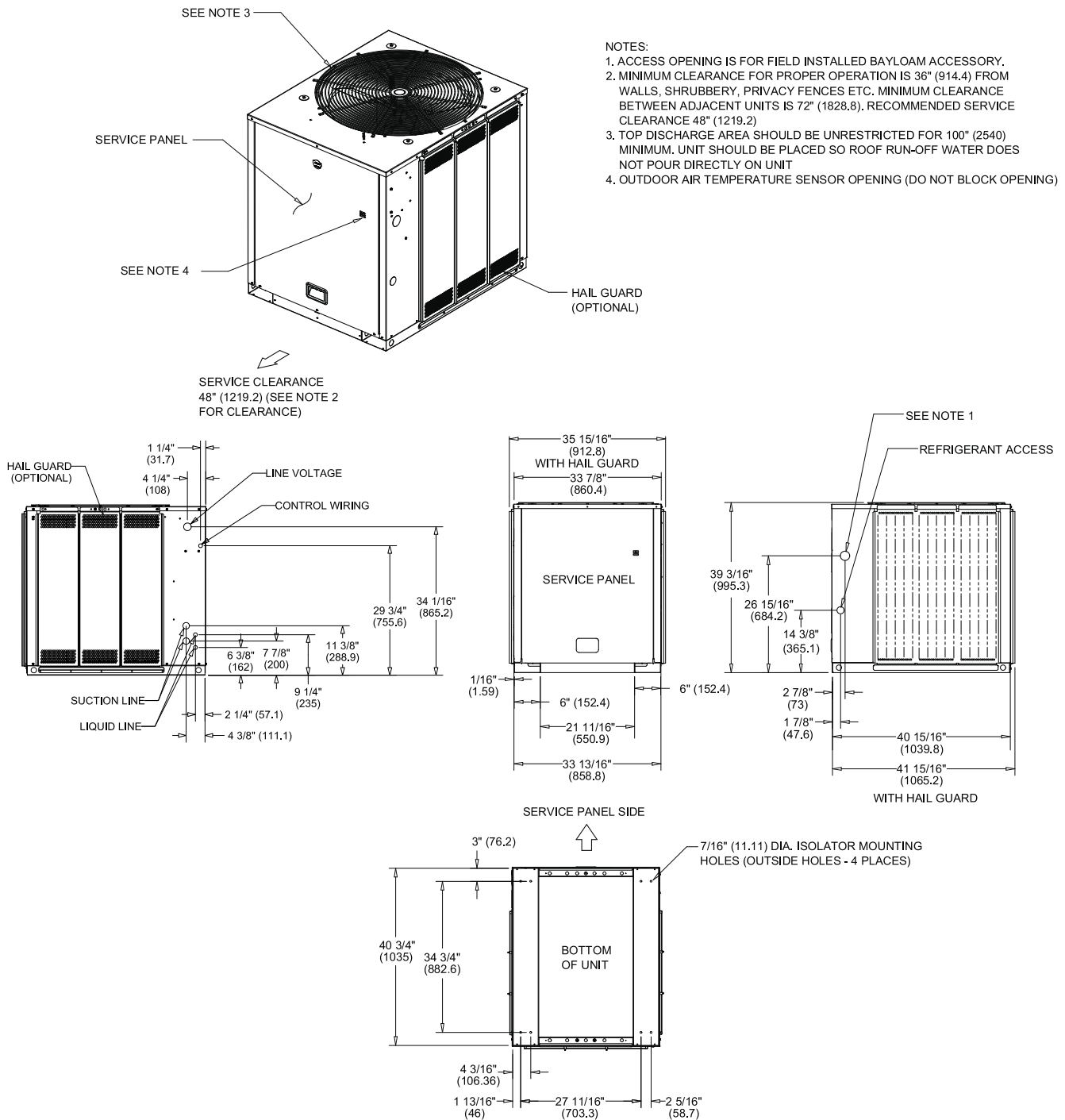


Figure 28. 6, 7.5 ton condensing unit, dual compressor, microchannel



Dimensional Data

Figure 29. 10 ton condensing unit, single and manifolded compressor. microchannel

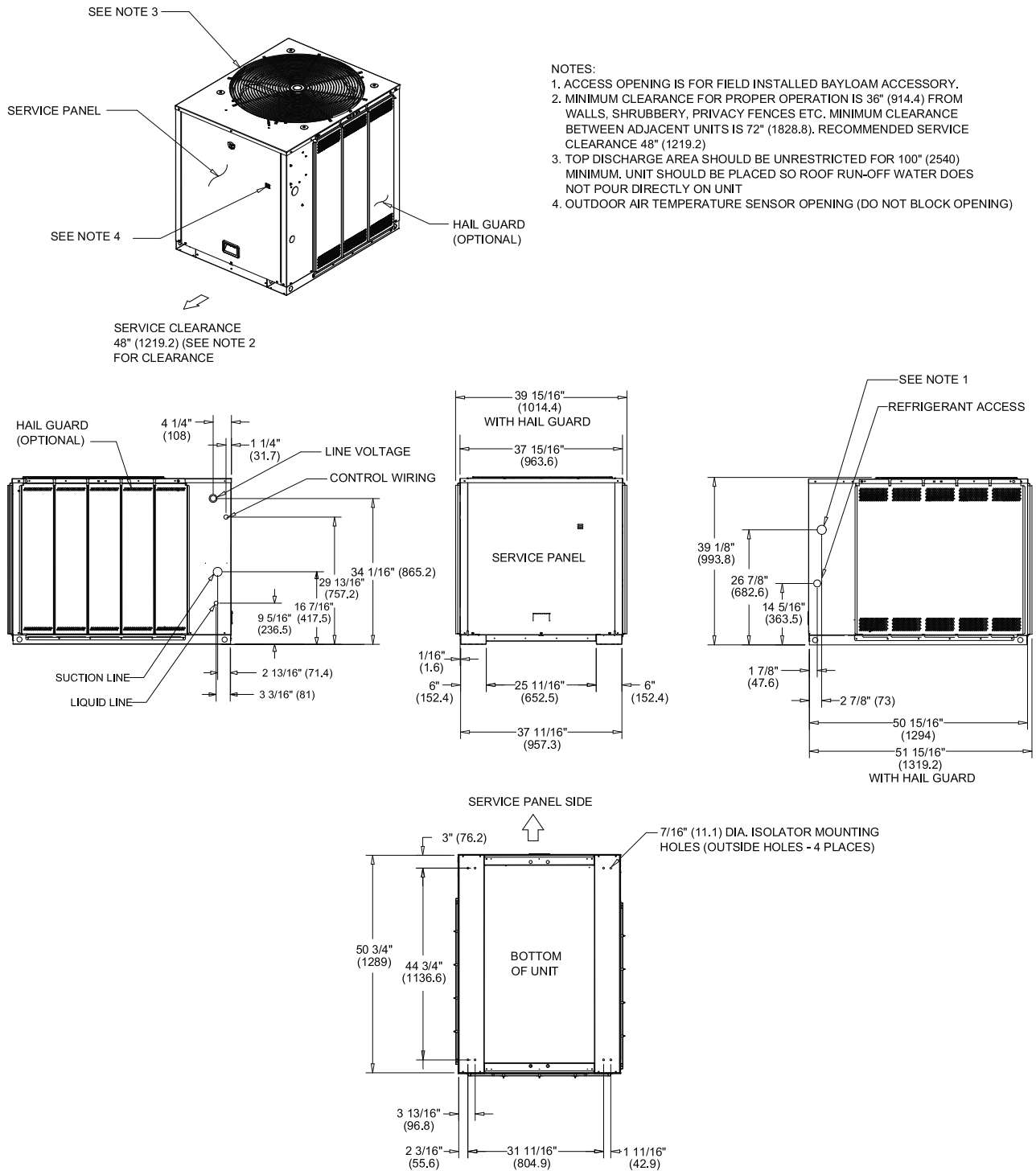
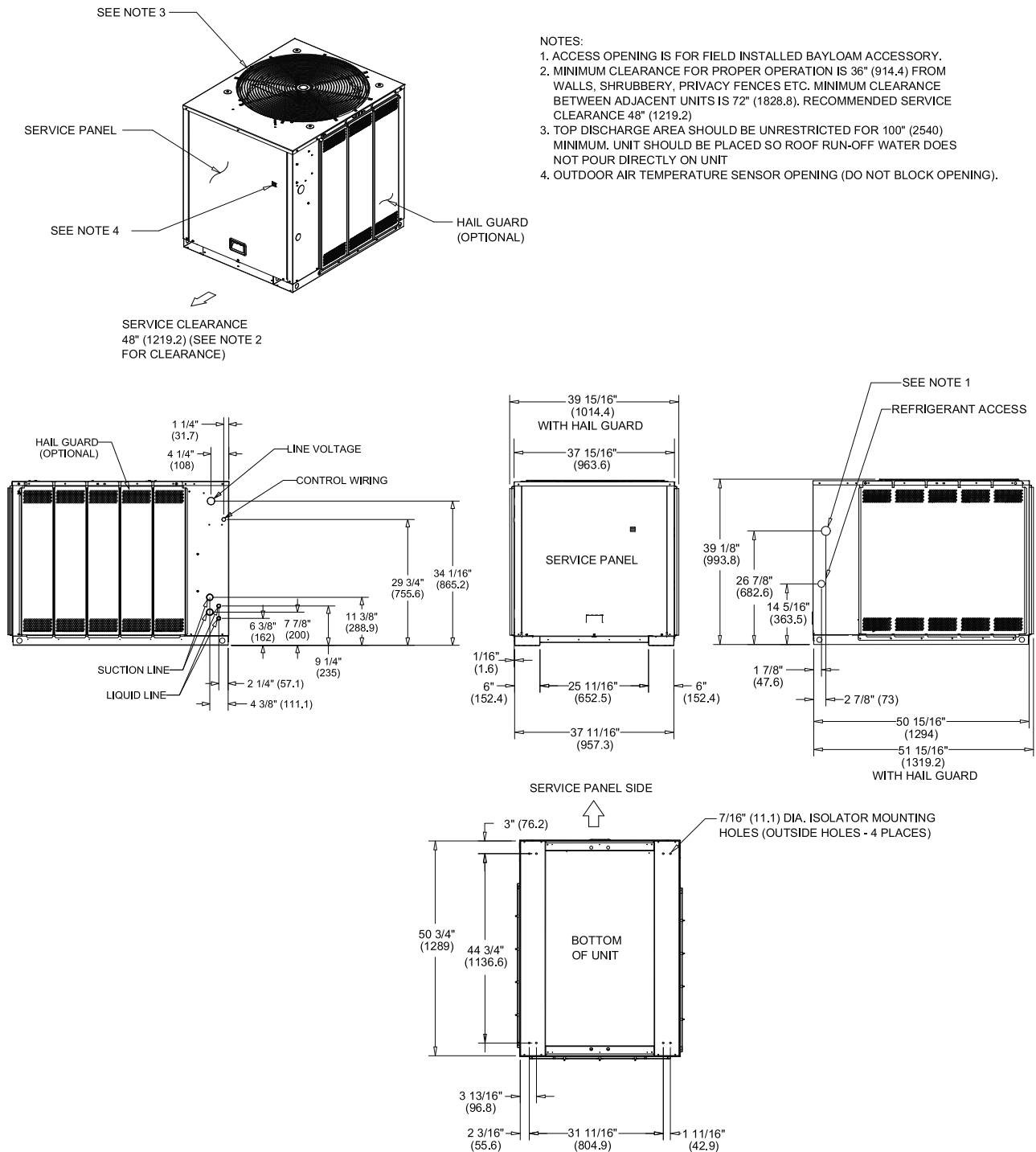


Figure 30. 10 ton condensing unit, dual compressor, microchannel



Dimensional Data

Figure 31. 12.5 ton condensing unit, dual compressor, microchannel

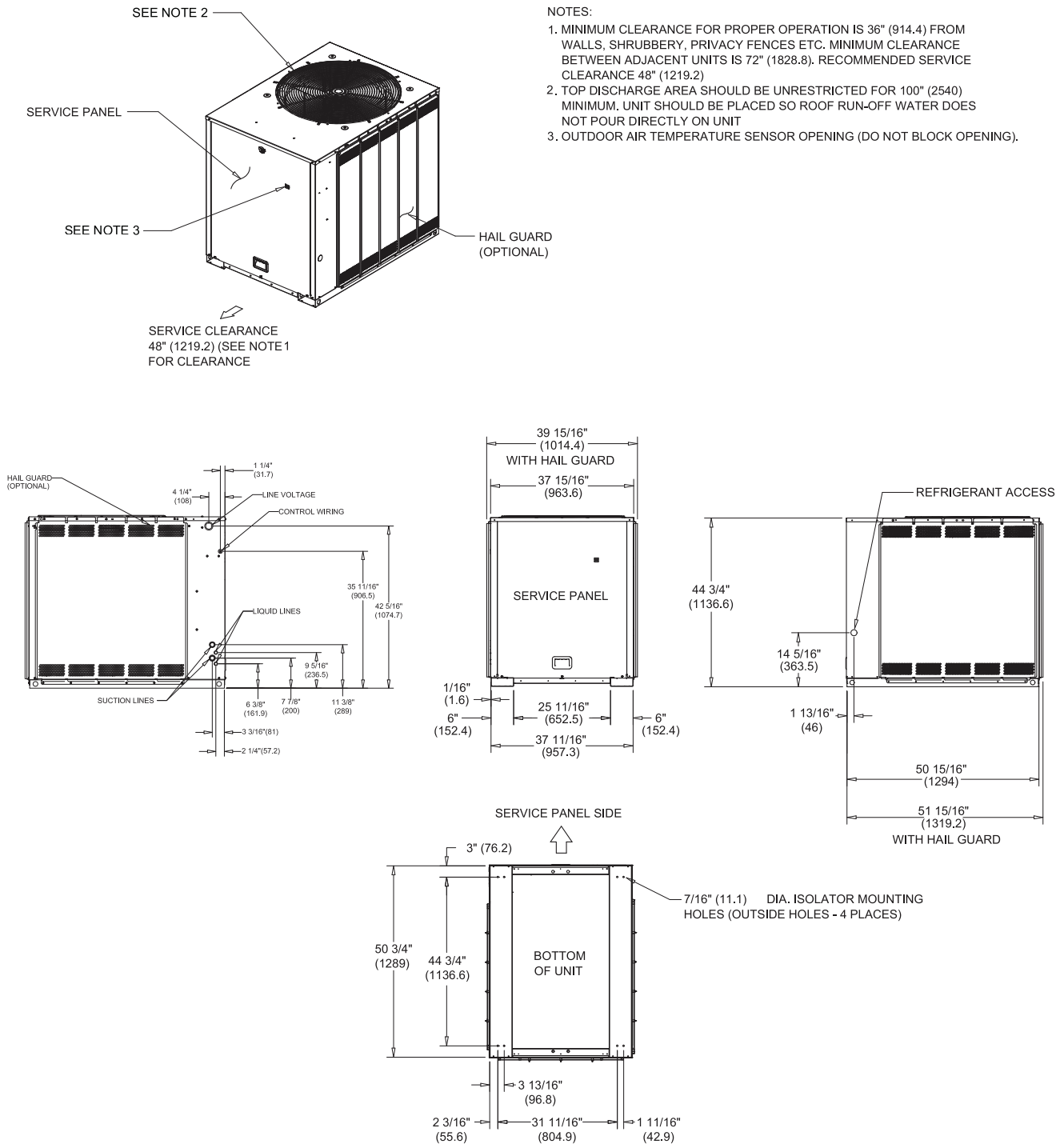
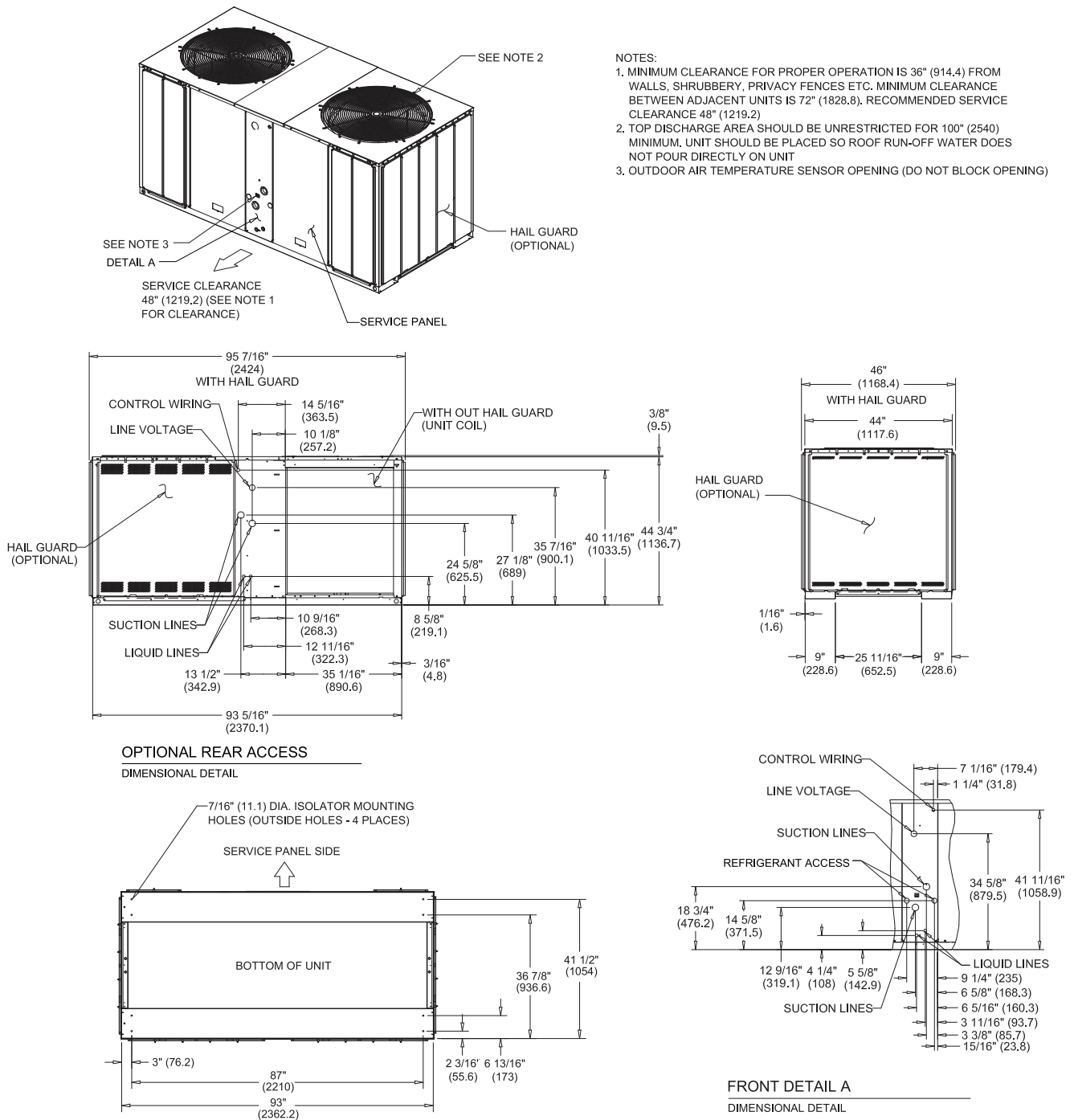


Figure 32. 15-20 ton condensing unit, dual compressor, microchannel



Dimensional Data

Figure 33. 15-20 condensing unit, manifolded compressor, microchannel

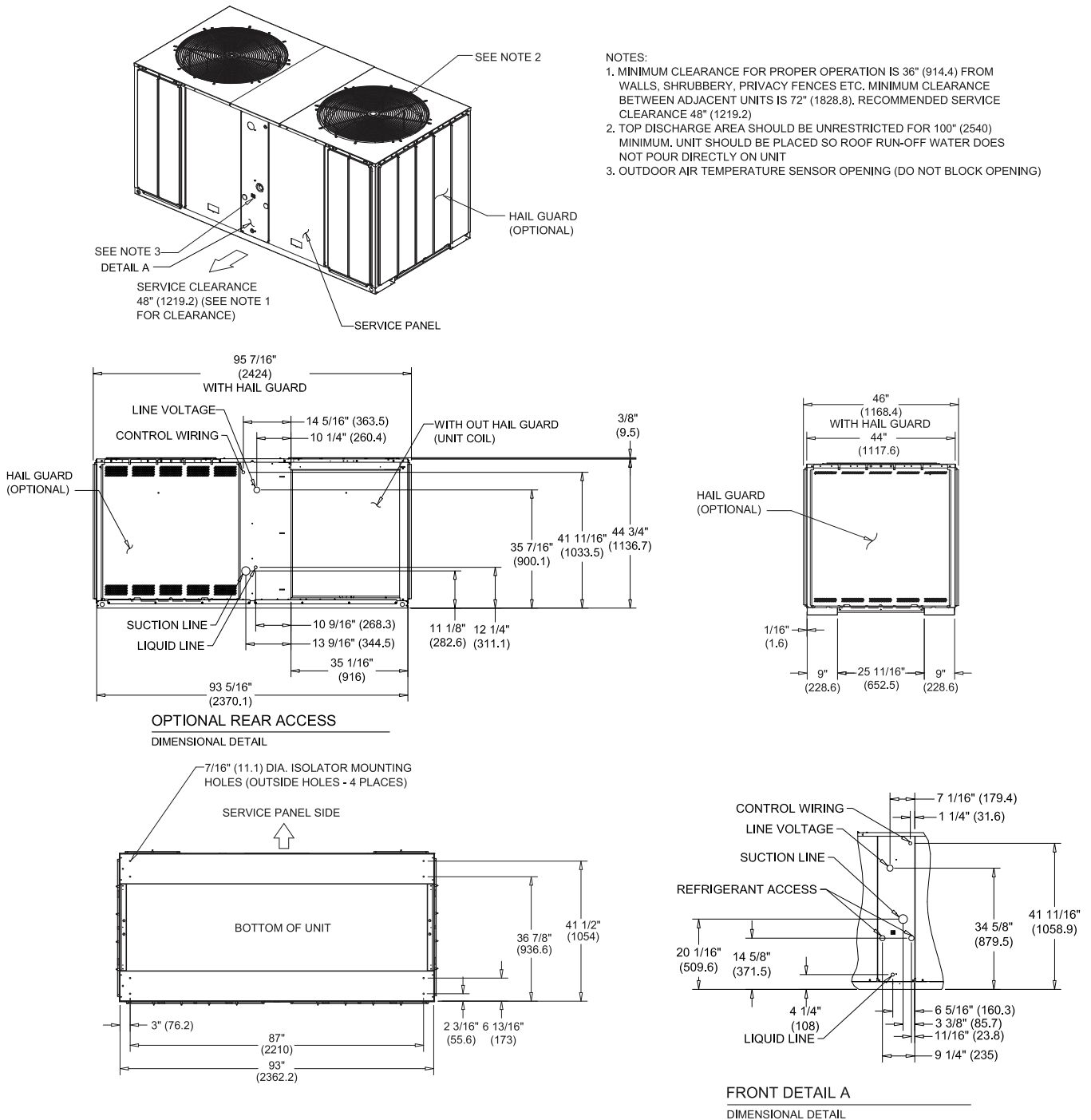
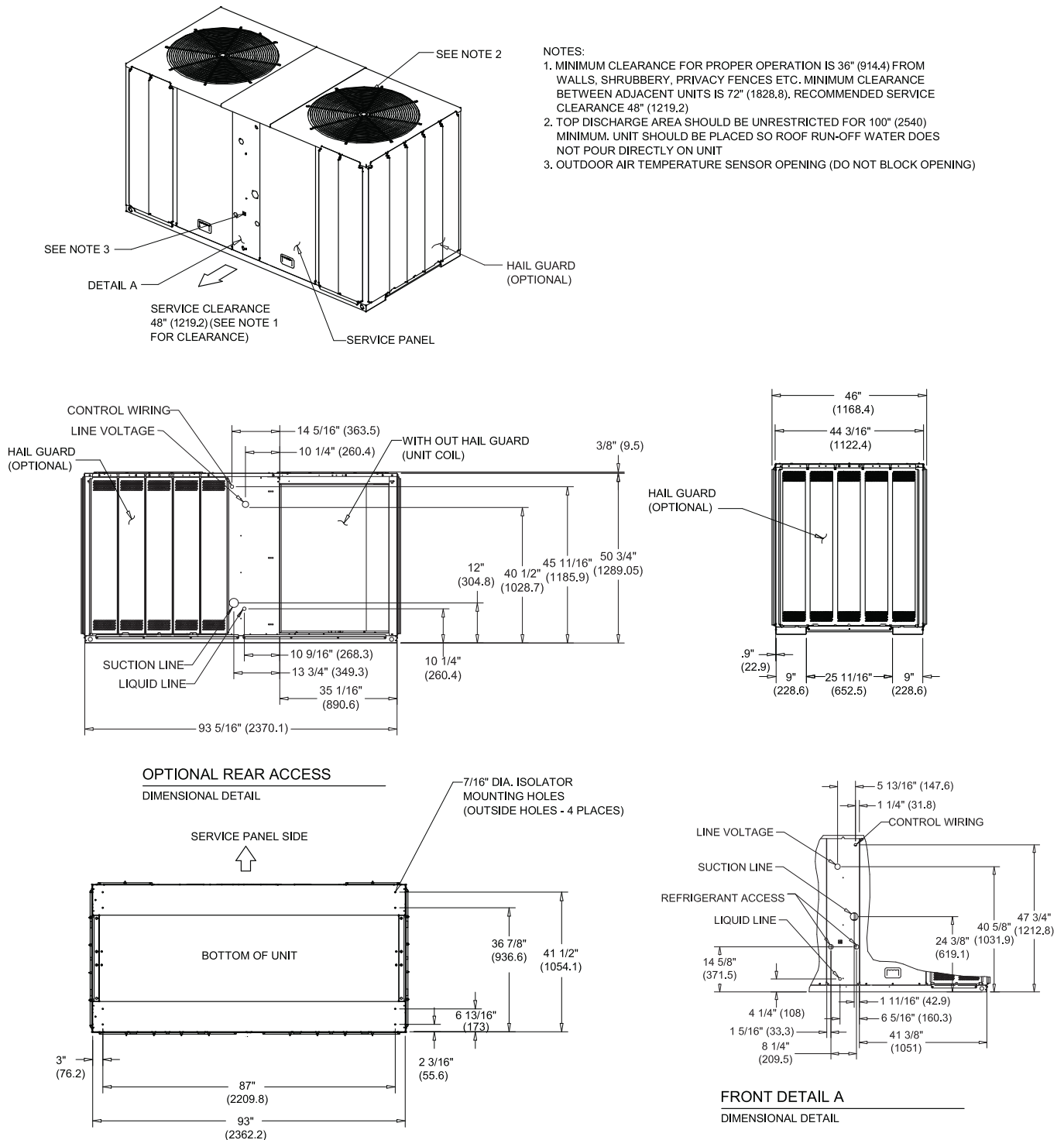


Figure 34. 25 ton condensing unit, manifolded compressor, microchannel


Air Handler

Figure 35. 5 ton air handler, single circuit

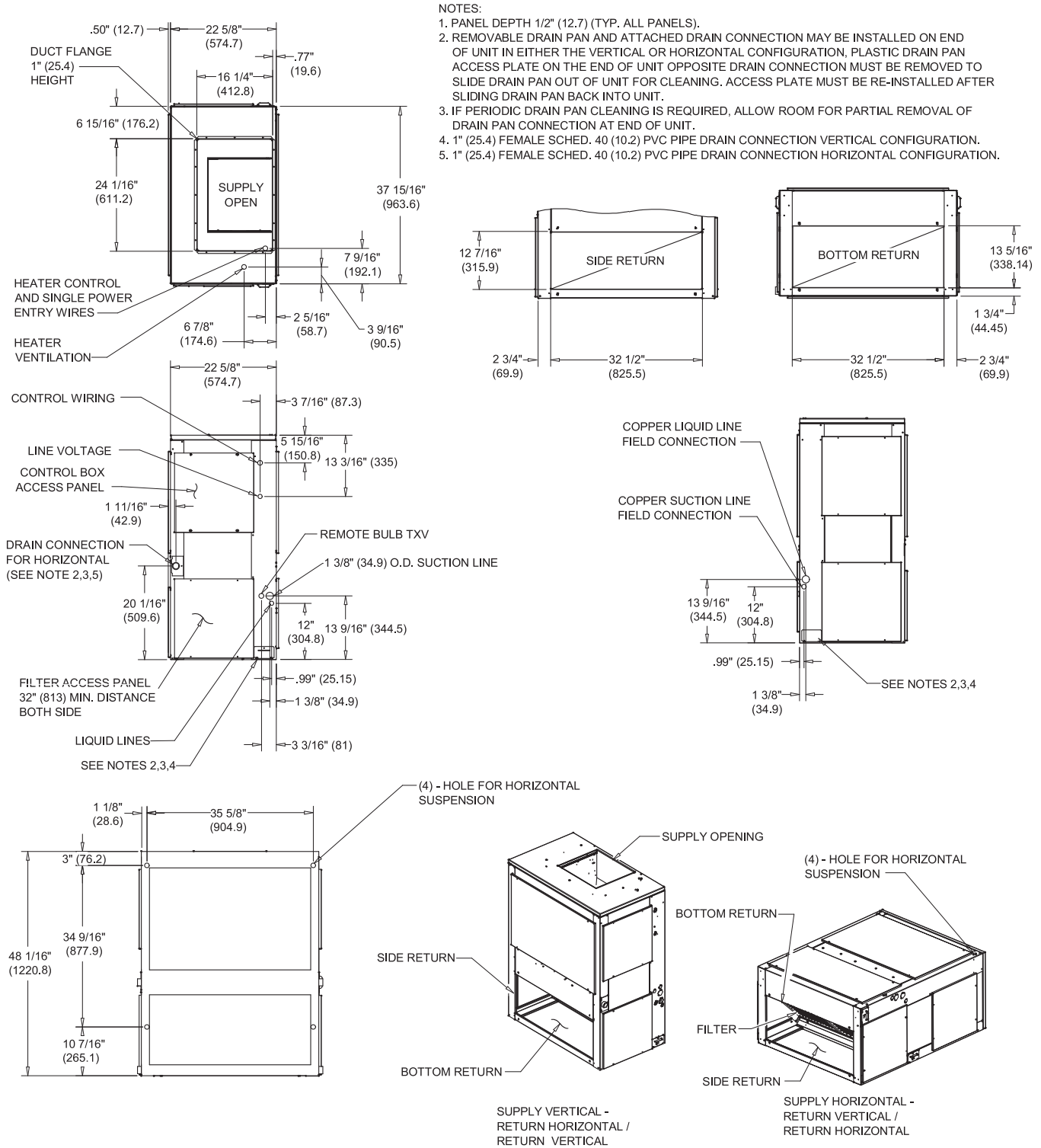
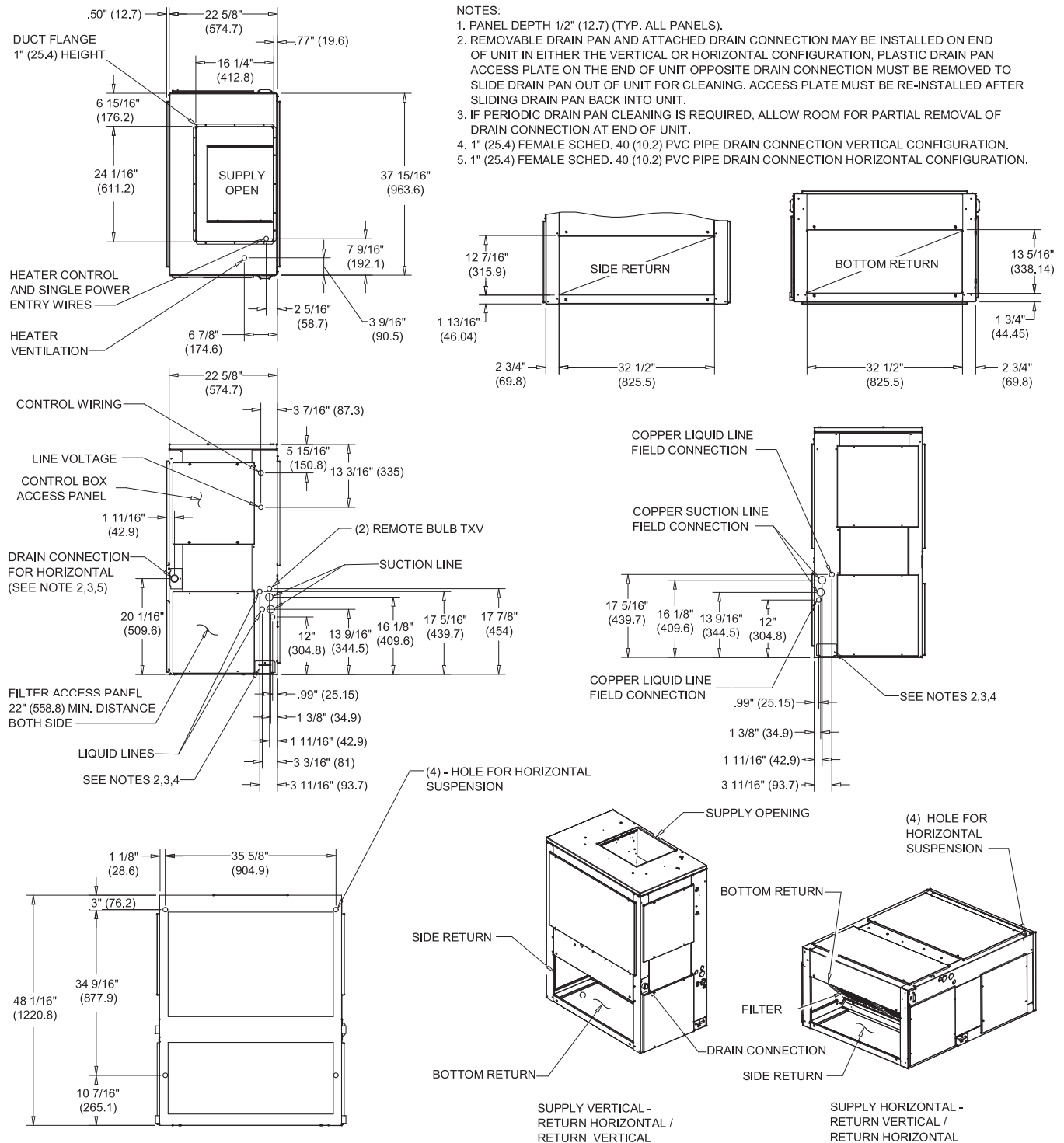


Figure 36. 5 ton air handler, dual circuit



FRONT VIEW DIMENSIONS:

- DUCT FLANGE 1" (25.4) HEIGHT
- 25 1/2" (647.7)
- 16 1/4" (412.8)
- 70" (17.8)
- 11 11/16" (296.8)
- 24 1/16" (611.2)
- 47 1/2" (1206.5)
- 8 5/16" (211.1)
- 12 5/16" (312.7)
- 2 1/4" (57.15)
- 6 13/16" (173)
- 25 1/2" (647.7)
- 3 1/2" (88.9)
- 8 13/16" (223.8)
- 16" (406.4)
- 1 3/16" (30.2)
- 22 7/8" (581)
- 16 11/16" (423.9)
- 17 7/16" (442.9)
- 20" (508)
- 3 5/8" (92.1)
- 1 11/16" (42.9)

FRONT VIEW LABELS:

- SUPPLY OPEN
- HEATER CONTROL AND SINGLE POWER ENTRY WIRES
- HEATER VENTILATION
- CONTROL WIRING
- LINE VOLTAGE
- CONTROL BOX ACCESS PANEL
- DRAIN CONNECTION FOR HORIZONTAL (SEE NOTE 2,3,5)
- REMOTE BULB TXV
- SUCTION LINE
- FILTER ACCESS PANEL 22" (558.8) MIN. DISTANCE BOTH SIDE
- LIQUID LINES
- SEE NOTES 2,3,4

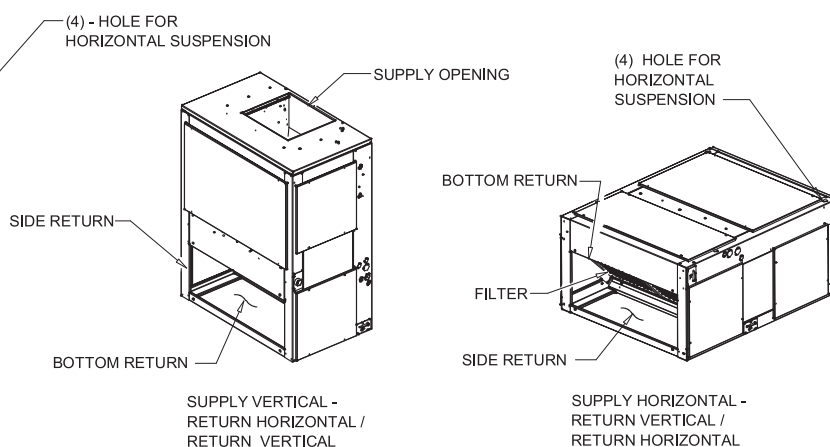
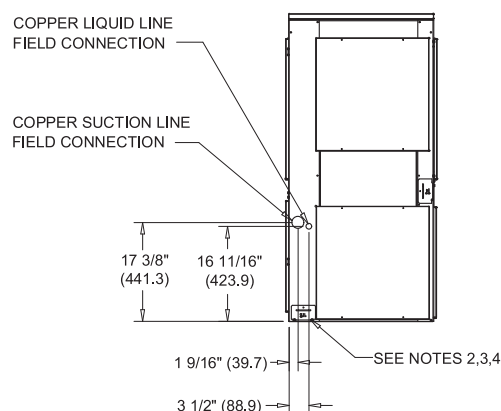
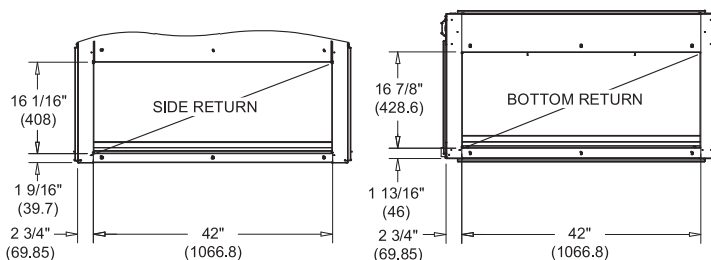
SIDE VIEW DIMENSIONS:

- 1 3/16" (30.16)
- 45 1/8" (1146.2)
- 6 3/4" (171.45)
- 54 1/16" (1373.2)
- 36 7/8" (936.6)
- 10 7/16" (265.1)
- (4) HO

SIDE VIEW LABELS:

- SIDE RETURN
- BOTTOM

- NOTES:
1. PANEL DEPTH 1/2" (12.7) (TYP. ALL PANELS).
 2. REMOVABLE DRAIN PAN AND ATTACHED DRAIN CONNECTION MAY BE INSTALLED ON END OF UNIT IN EITHER THE VERTICAL OR HORIZONTAL CONFIGURATION, PLASTIC DRAIN PAN ACCESS PLATE ON THE END OF UNIT OPPOSITE DRAIN CONNECTION MUST BE REMOVED TO SLIDE DRAIN PAN OUT OF UNIT FOR CLEANING. ACCESS PLATE MUST BE RE-INSTALLED AFTER SLIDING DRAIN PAN BACK INTO UNIT.
 3. IF PERIODIC DRAIN PAN CLEANING IS REQUIRED, ALLOW ROOM FOR PARTIAL REMOVAL OF DRAIN PAN CONNECTION AT END OF UNIT.
 4. 1" (25.4) FEMALE SCHED. 40 (10.2) PVC PIPE DRAIN CONNECTION VERTICAL CONFIGURATION.
 5. 1" (25.4) FEMALE SCHED. 40 (10.2) PVC PIPE DRAIN CONNECTION HORIZONTAL CONFIGURATION.



FRONT VIEW

- DUCT FLANGE 1" (25.4) HEIGHT
- 25 1/2" (647.7)
- 16 1/4" (412.8)
- .70" (17.78)
- 11 11/16" (296.9)
- 24 1/16" (611.2)
- SUPPLY OPEN
- 47 1/2" (1206.5)
- 8 5/16" (211.1)
- 12 5/16" (312.7)
- HEATER CONTROL AND SINGLE POWER ENTRY WIRES
- 2 1/4" (57.15)
- HEATER VENTILATION
- 6 13/16" (173)

SIDE VIEW

- CONTROL WIRING
- 25 1/2" (647.7)
- 3 1/2" (88.9)
- LINE VOLTAGE
- CONTROL BOX ACCESS PANEL
- 1 3/16" (30.2)
- DRAIN CONNECTION FOR HORIZONTAL (SEE NOTE 2,3,5)
- 22 7/8" (581)
- (2) REMOTE SUCT
- 8 13/16" (223.8)
- 16" (406.4)
- 11 1/16" (281)
- 13 3/4" (349.2)
- 1 5/16" (33.3)
- 1 5/8" (41.3)
- 3 5/8" (92.1)
- FILTER ACCESS PANEL 22" (559) MIN. DISTANCE BOTH SIDE
- LIQUID LINES
- SEE NOTES 2,3,4
- 1 3/16" (30.2)
- 45 1/8" (1146.2)
- 6 3/4" (171.5)
- 54 1/16" (1373.2)
- 36 7/8" (936.6)
- 10 7/16" (265.1)

1. PANEL DEPTH 1/2" (12.7) (TYP. ALL PANELS).
2. REMOVABLE DRAIN PAN AND ATTACHED DRAIN CONNECTION MAY BE INSTALLED ON END OF UNIT IN EITHER THE VERTICAL OR HORIZONTAL CONFIGURATION, PLASTIC DRAIN PAN ACCESS PLATE ON THE END OF UNIT OPPOSITE DRAIN CONNECTION MUST BE REMOVED TO SLIDE DRAIN PAN OUT OF UNIT FOR CLEANING. ACCESS PLATE MUST BE RE-INSTALLED AFTER SLIDING DRAIN PAN BACK INTO UNIT.
3. IF PERIODIC DRAIN PAN CLEANING IS REQUIRED, ALLOW ROOM FOR PARTIAL REMOVAL OF DRAIN PAN CONNECTION AT END OF UNIT.
4. 1" (25.4) FEMALE SCHED. 40 (10.2) PVC PIPE DRAIN CONNECTION VERTICAL CONFIGURATION.
5. 1" (25.4) FEMALE SCHED. 40 (10.2) PVC PIPE DRAIN CONNECTION HORIZONTAL CONFIGURATION.

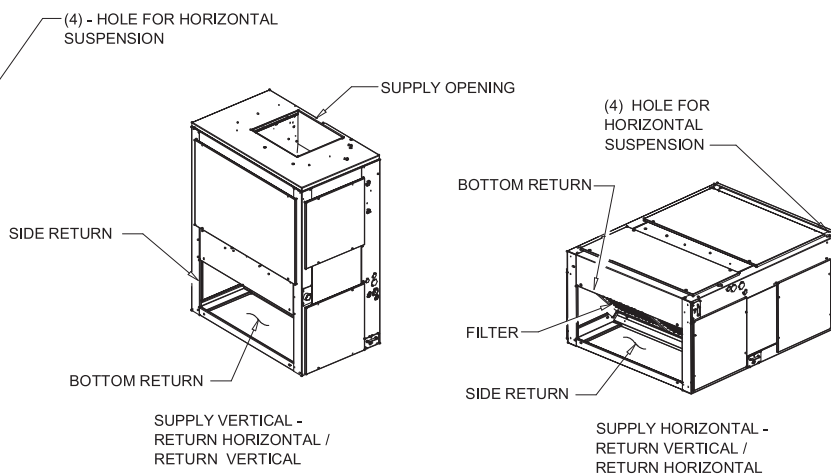
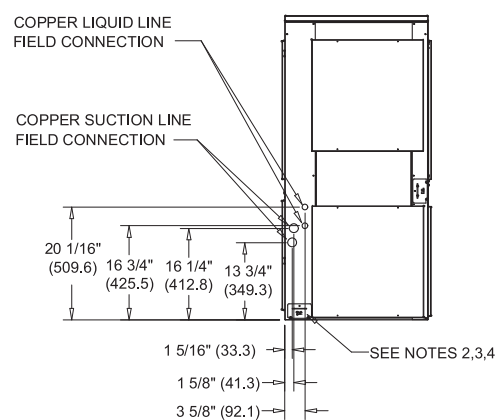
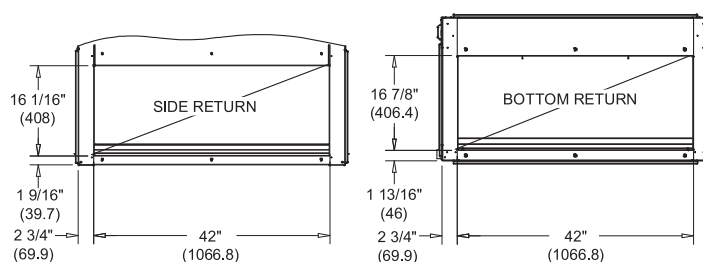


Figure 39. 10 ton air handler, single circuit

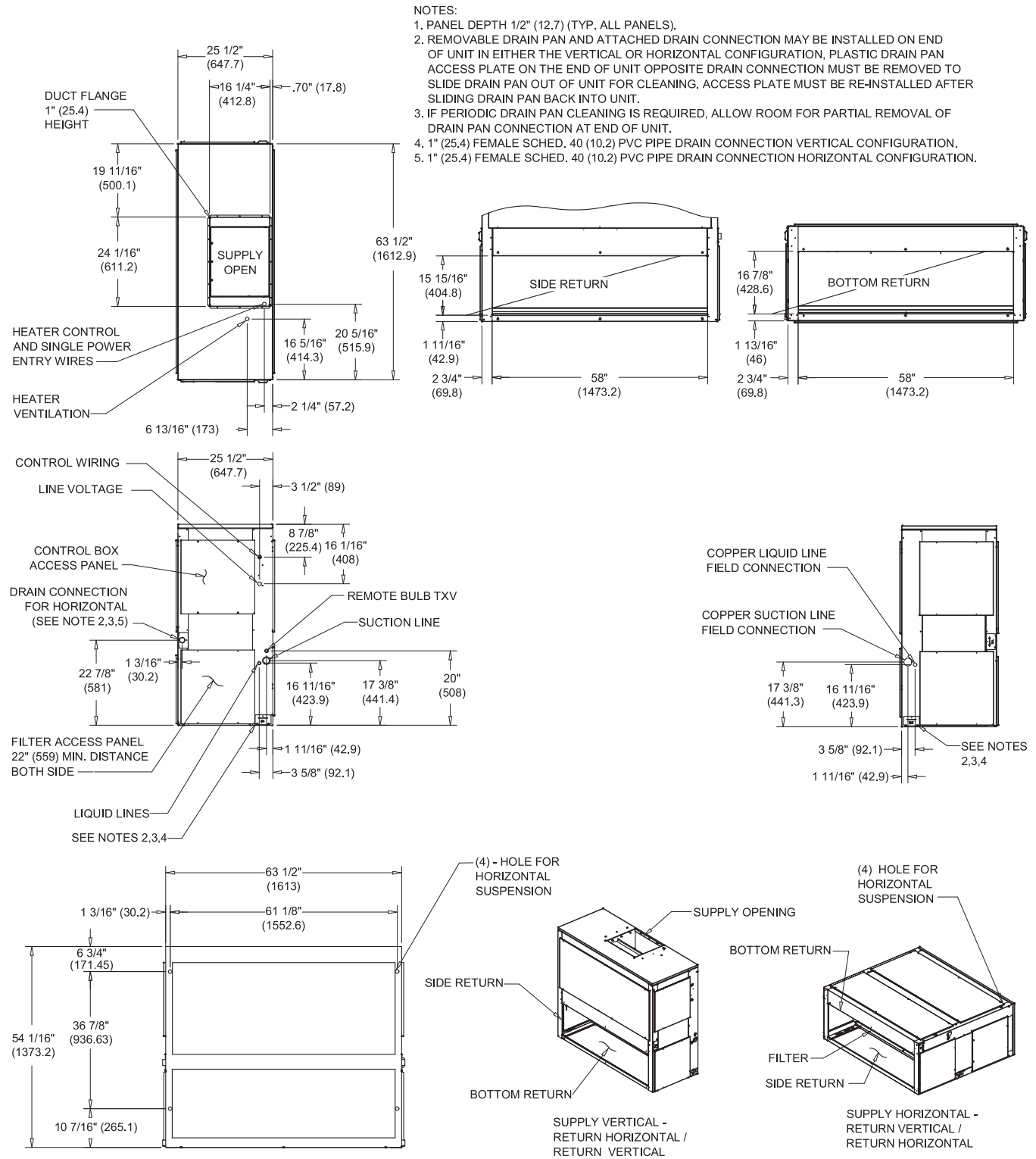


Figure 40. 10 ton air handler, dual circuit

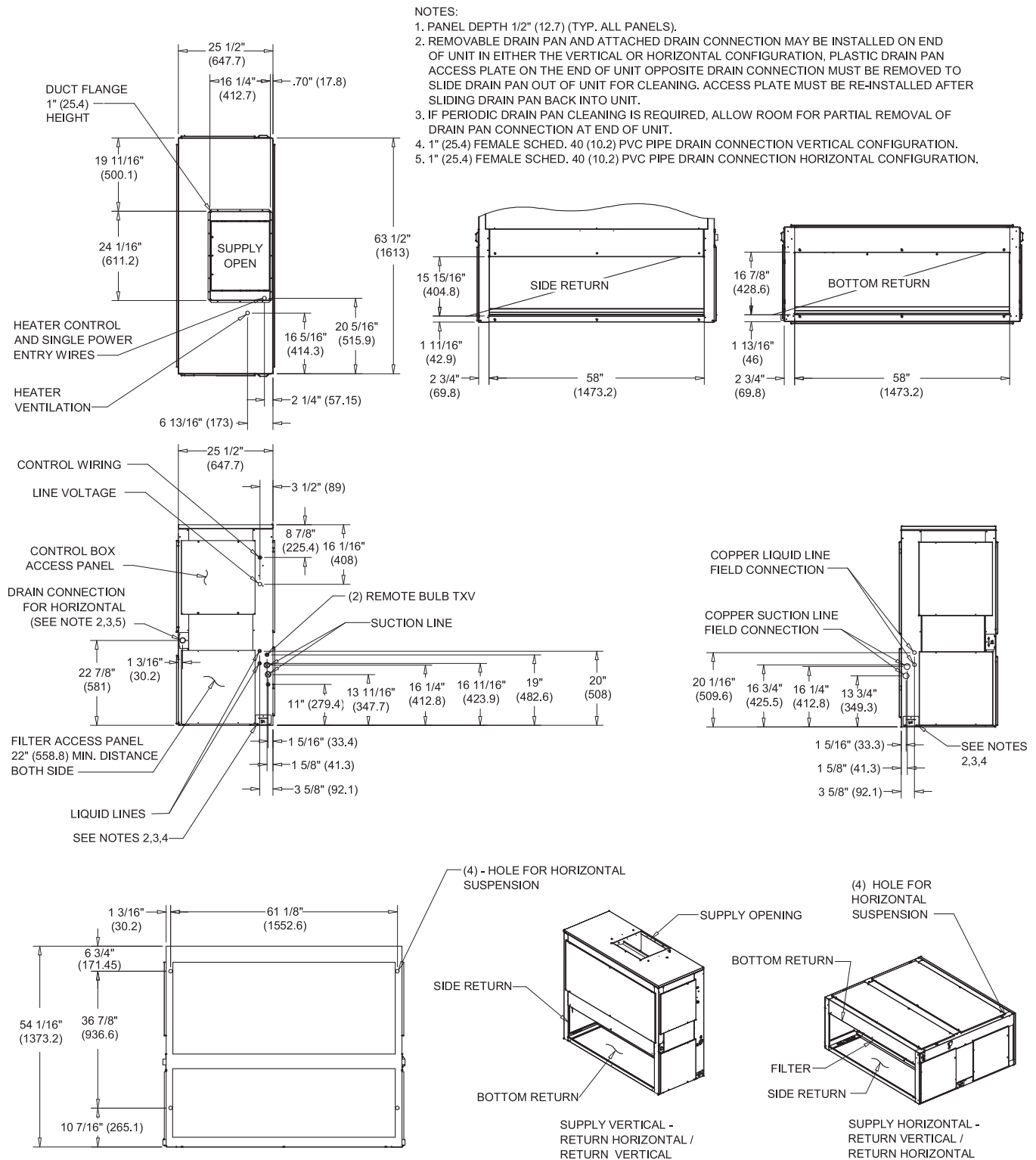


Figure 41. 12.5, 15 ton air handler, dual circuit

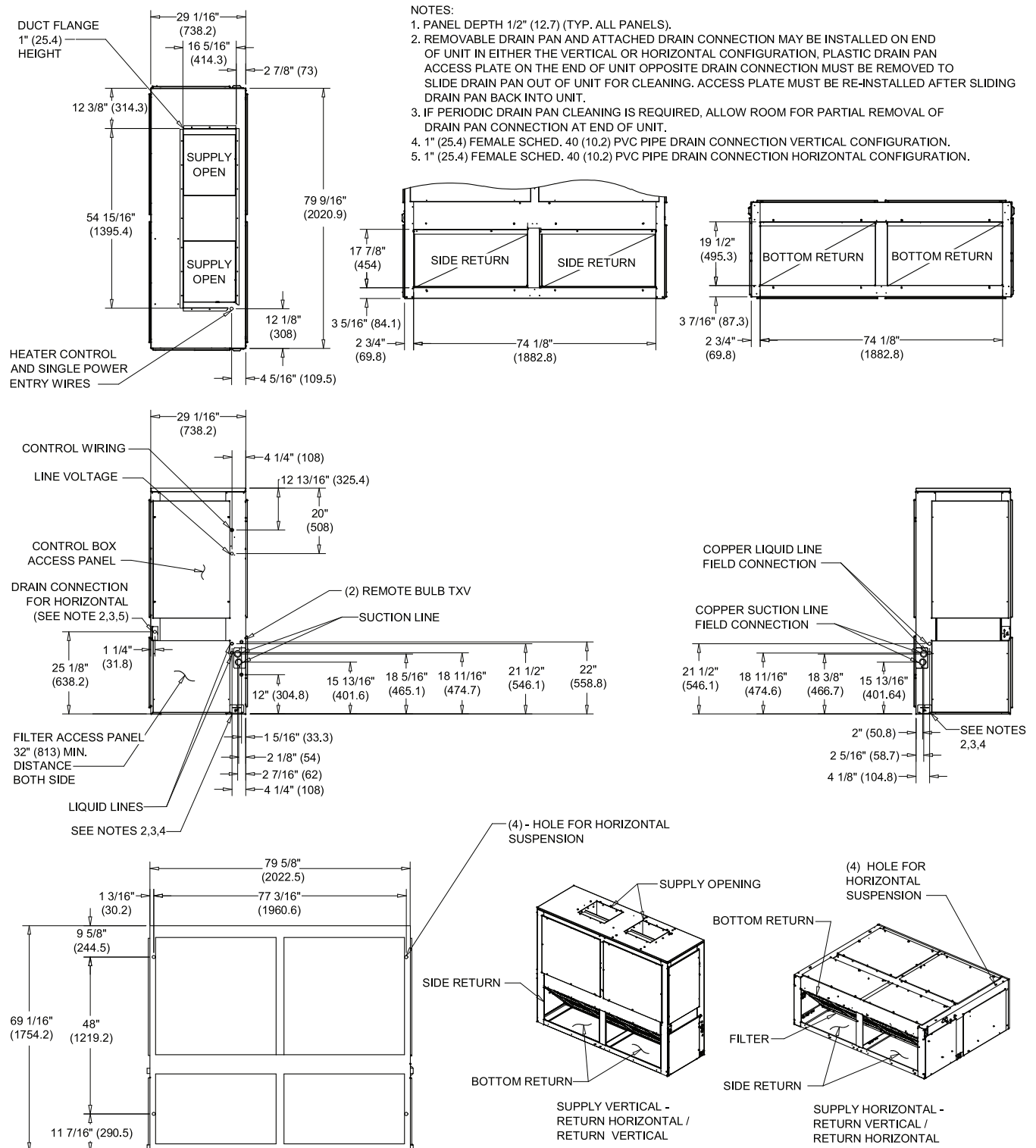
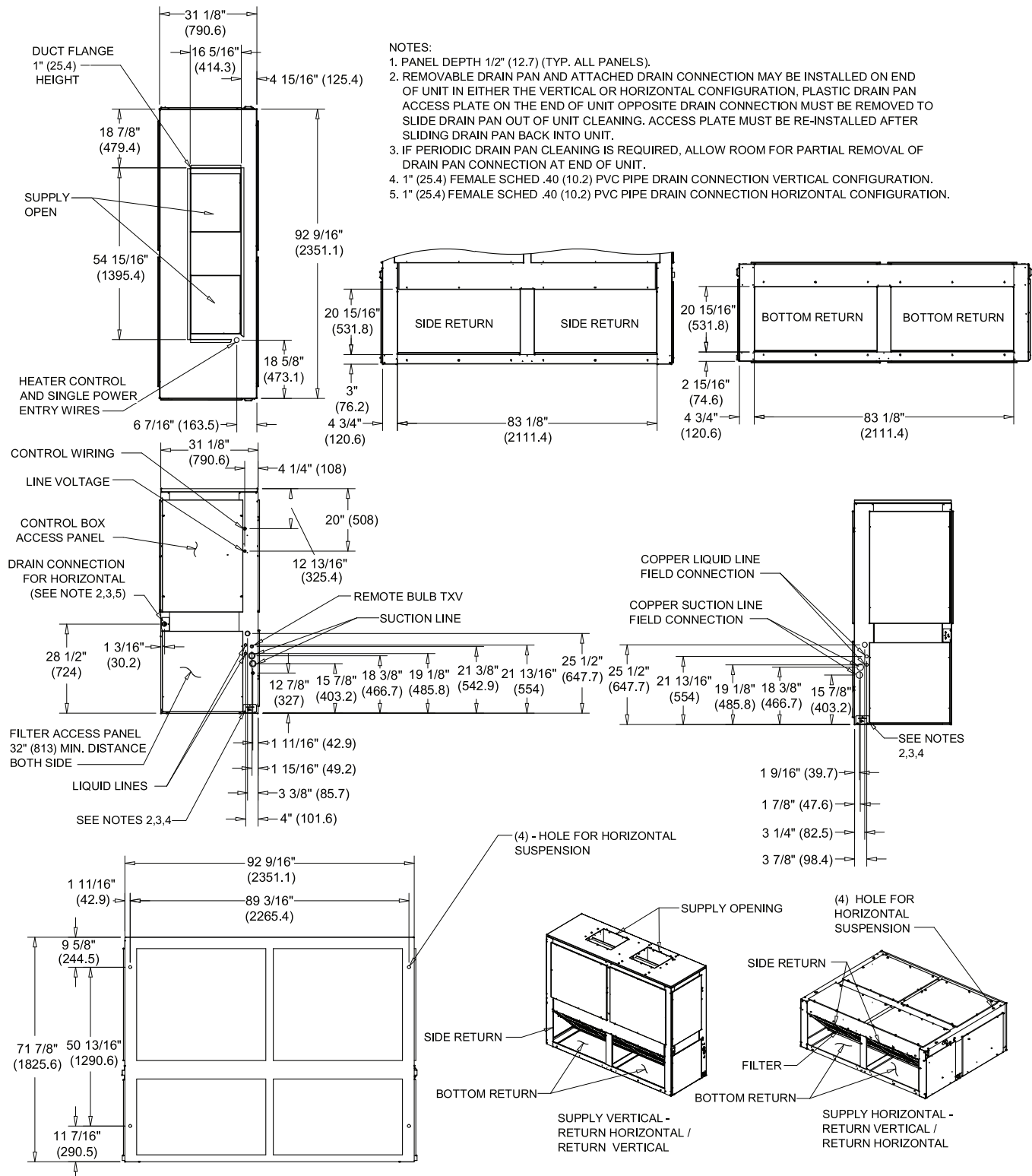


Figure 42. 20, 25 ton air handler, dual circuit



Accessories

Figure 43. Rubber isolator accessory dimensions

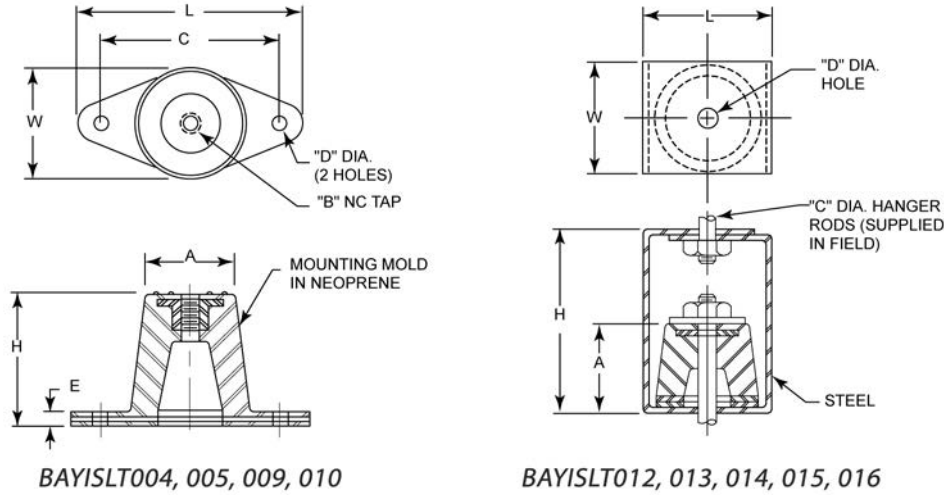
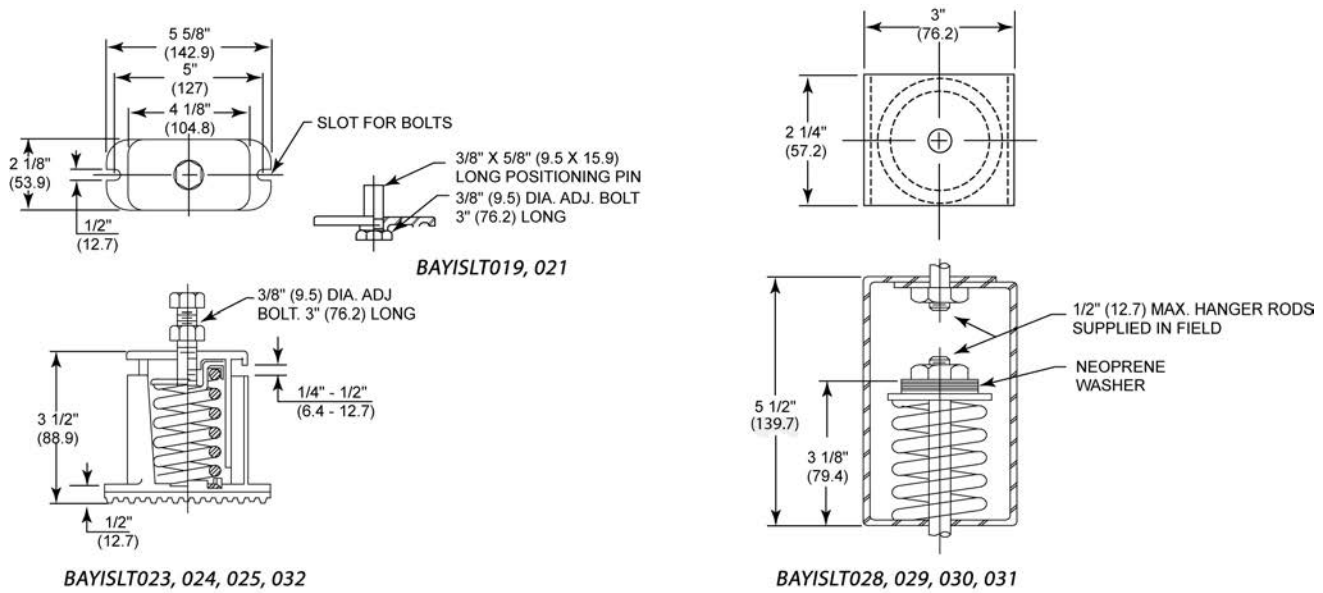
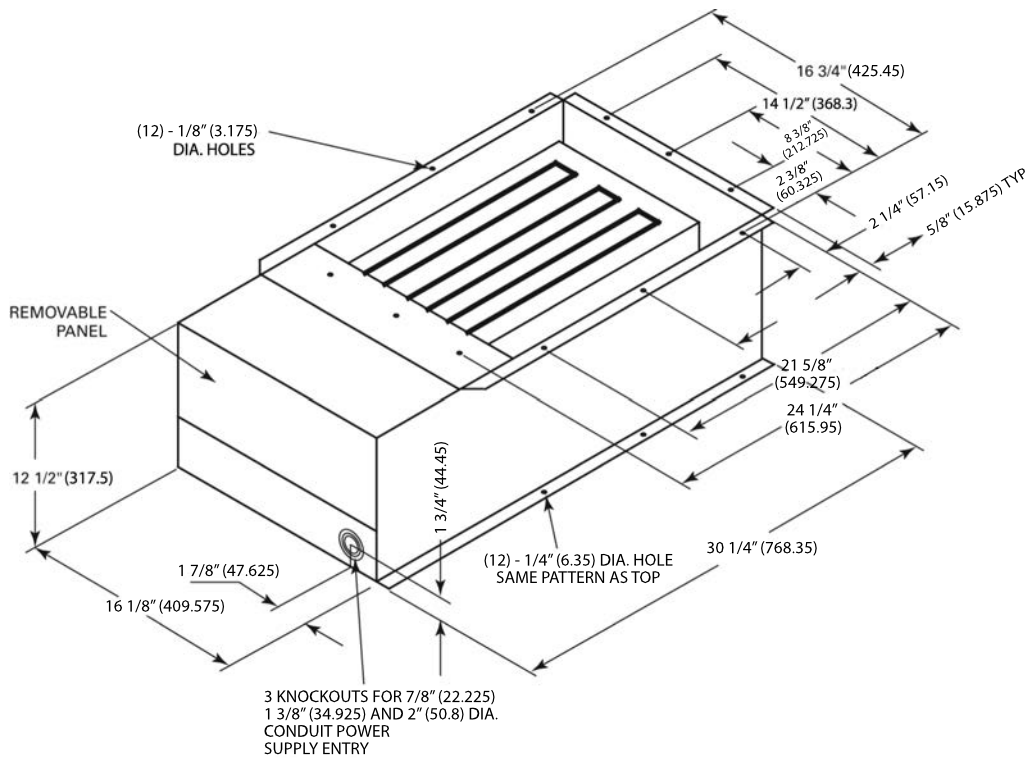


Table 83. Rubber isolator accessory dimensions

Model No.	L	W	H	A	B	C	D	E
BAYISLT004	3-1/8 (79.375)	1-3/4 (44.45)	1-1/4 (31.75)	1-1/4 (31.75)	3/8 (9.525)	2-3/8 (60.325)	3/8 (9.525)	1/4 (6.35)
BAYISLT005	3-7/8 (98.425)	2-3/8 (60.325)	1-3/4 (44.45)	1-3/4 (44.45)	3/8 (9.525)	3 (76.2)	3/8 (9.525)	1/4 (6.35)
BAYISLT009	3-7/8 (98.425)	2-3/8 (60.325)	1-3/4 (44.45)	1-3/4 (44.45)	3/8 (9.525)	3 (76.2)	3/8 (9.525)	1/4 (6.35)
BAYISLT010	3-7/8 (98.425)	2-3/8 (60.325)	1-3/4 (44.45)	1-3/4 (44.45)	3/8 (9.525)	3 (76.2)	3/8 (9.525)	1/4 (6.35)
BAYISLT013	2-1/4 (57.15)	2 (50.8)	3 (76.2)	1-3/8 (34.925)	3/4 (19.05)	3/8 (9.525)	1/2 (12.7)	—
BAYISLT014	2-1/4 (57.15)	2 (50.8)	3 (76.2)	1-3/8 (34.925)	3/4 (19.05)	3/8 (9.525)	1/2 (12.7)	—
BAYISLT015	2-1/4 (57.15)	2 (50.8)	3 (76.2)	1-3/8 (34.925)	3/4 (19.05)	3/8 (9.525)	1/2 (12.7)	—
BAYISLT012	3 (76.2)	2-1/4 (57.15)	4-1/2 (114.3)	1-7/8 (47.625)	1/4 (6.35)	5/8 (15.875)	3/4 (19.05)	—
BAYISLT015(a)	3 (76.2)	2-1/4 (57.15)	4-1/2 (114.3)	1-7/8 (47.625)	1/4 (6.35)	5/8 (15.875)	3/4 (19.05)	—
BAYISLT016	3 (76.2)	2-1/4 (57.15)	4-1/2 (114.3)	1-7/8 (47.625)	1/4 (6.35)	5/8 (15.875)	3/4 (19.05)	—

Note: BAYISLT015 contains a quantity 2 of the 2-1/4 x 2 x 3 isolators and quantity of 3 of the 3 x 2-1/4 x 4-1/2 isolators.

Figure 44. Spring isolator accessory dimensions – inches (millimeters)

Figure 45. Electric heater accessory for 5-10 ton air handlers – inches (millimeters)




Dimensional Data

Figure 46. Electric heater accessory for 12.5-25 ton air handlers – inches (millimeters)

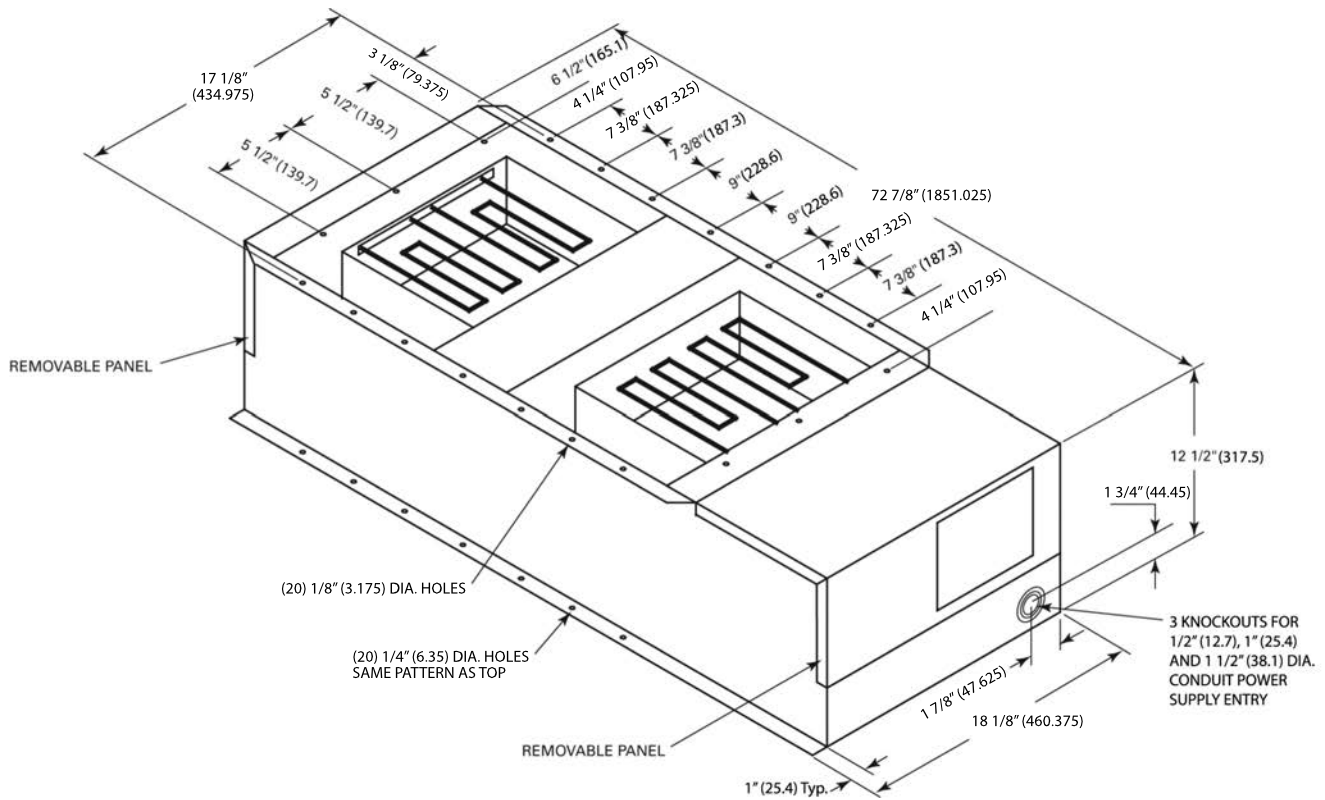


Figure 47. Hot water coil accessory – inches (millimeters)

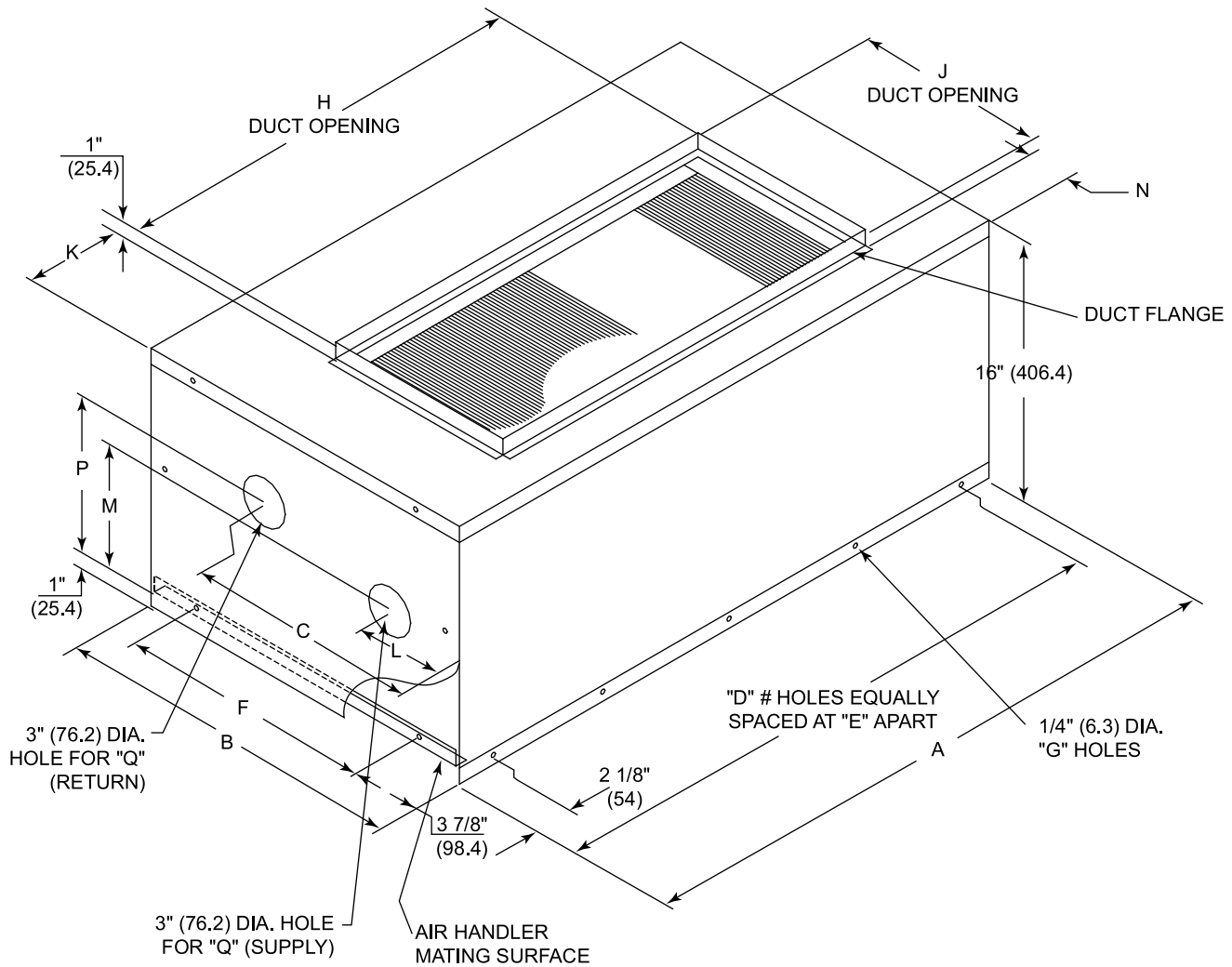


Table 84. Hot water coil accessory – inches (millimeters)

Model No.	A	B	C	D	E	F	G	H
BAYWATR027	38.14 (969)	22.74 (576)	13.74 (349)	5 (127)	9 (229)	13.65 (347)	16 (406)	26 (660)
BAYWATR028	47.74 (1213)	25.74 (654)	15.95 (405)	5 (127)	10.84 (275)	17.17 (436)	16 (406)	30 (762)
BAYWATR029	63.84 (1621)	25.74 (654)	15.95 (405)	6 (152)	11.84 (301)	17.16 (436)	18 (457)	36 (914)
BAYWATR030	79.74 (2025)	29.18 (741)	14.36 (365)	8 (203)	10.85 (276)	19.67 (500)	22 (559)	51 (1295)
BAYWATR031	92.74 (2356)	31.24 (793)	16.48 (419)	8 (203)	10.85 (276)	19.67 (500)	22 (559)	64 (1626)
Model No.	J	K	L	M	N	P	Q	
BAYWATR027	12 (305)	6 (152)	4.94 (125)	7.79 (198)	2.88 (73)	10.24 (260)	2 NPT (51) NPTI	
BAYWATR028	18 (457)	8.88 (225)	8.45 (215)	10.27 (261)	2.88 (73)	7.77 (197)	2.5 NPTI (64) NPTI	
BAYWATR029	18 (457)	13.88 (352)	8.45 (215)	10.03 (255)	2.88 (73)	7.58 (192)	2.5 NPTI (64) NPTI	
BAYWATR030	18 (457)	14.25 (362)	6.86 (174)	9.91 (252)	1.88 (48)	7.41 (188)	2.5 NPTI (64) NPTI	
BAYWATR031	18 (457)	14.25 (362)	8.98 (228)	9.88 (251)	3.75 (95)	7.38 (187)	2.5 NPTI (64) NPTI	

Note: Hot Water Coil Dimensions - inches (millimeters)

Dimensional Data

Figure 48. Steam coil accessory – inches (millimeters)

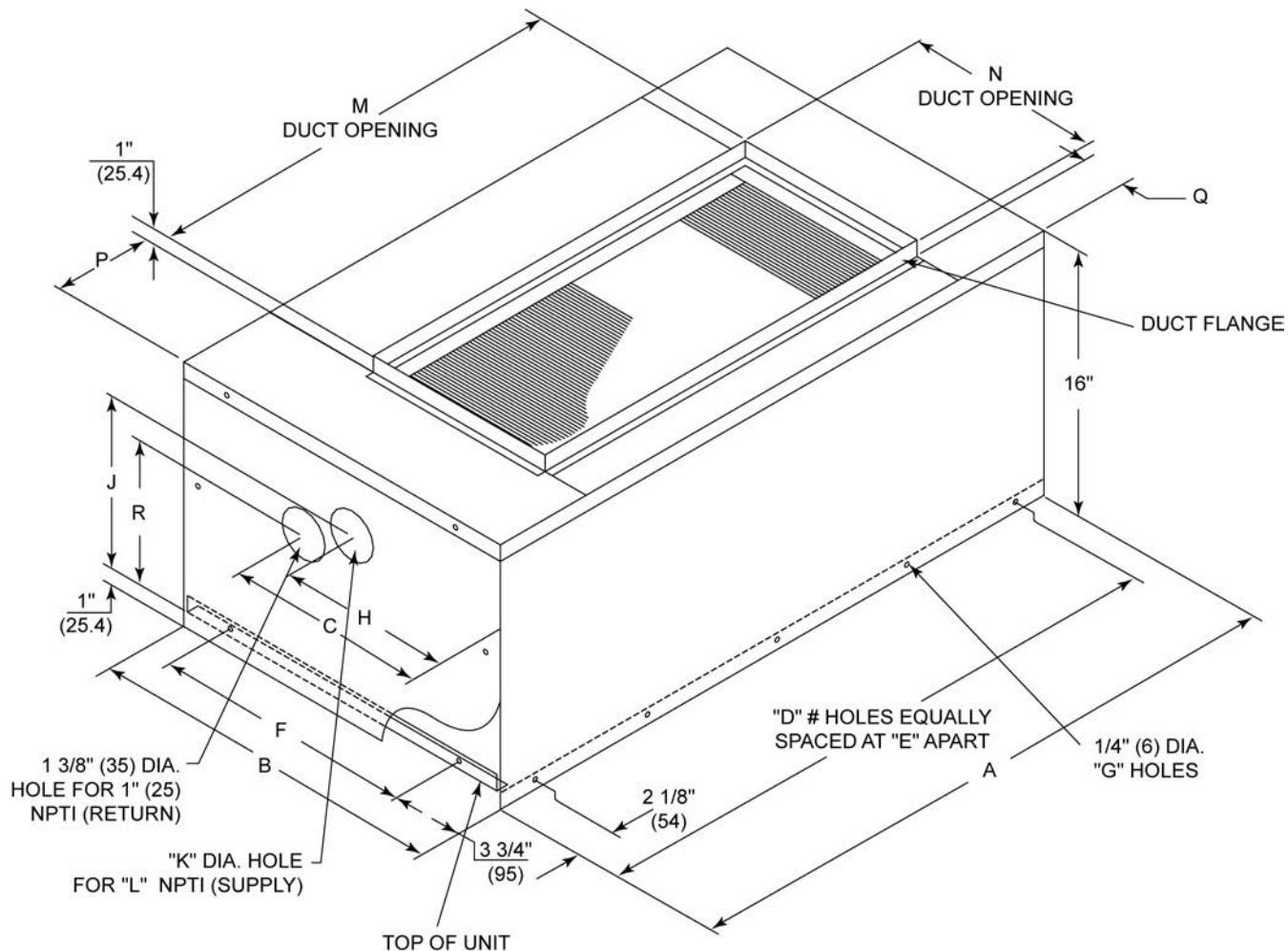
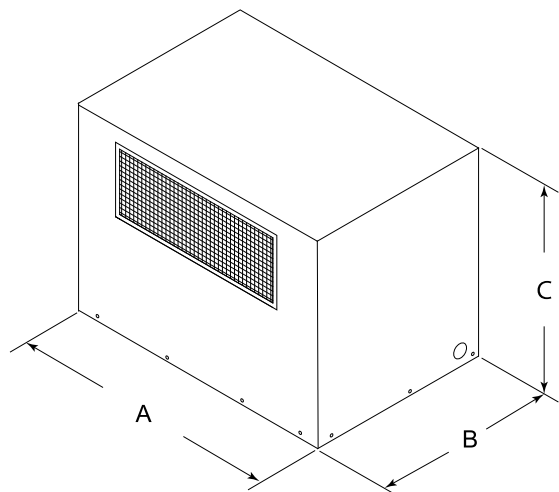


Table 85. Steam coil accessory – inches (millimeters)

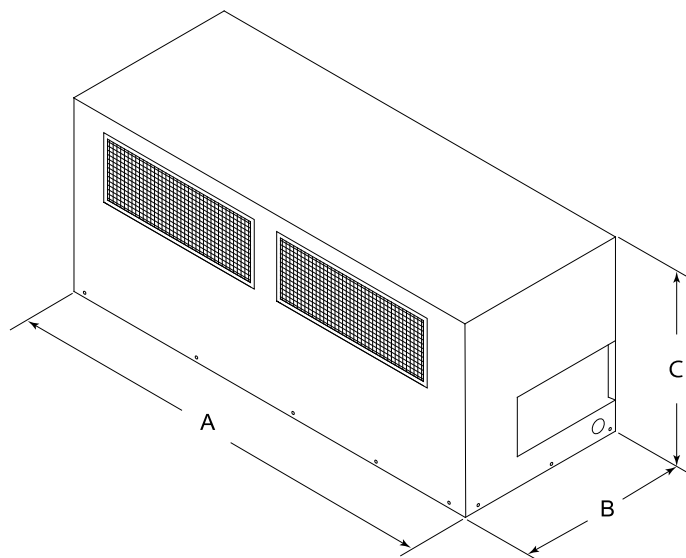
Model No.	A	B	C	D	E	F	G	H	J	K
BAYWATR022	38.14 (969)	22.74 (577)	14.32 (364)	5 (127)	9 (229)	13.67 (347)	16 (406)	10.88 (276)	11.17 (284)	2 (51)
BAYWATR023	47.74 (1212)	25.74 (654)	20.14 (511)	5 (127)	10.84 (275)	17.17 (436)	16 (406)	10.88 (276)	11.17 (284)	2 (51)
BAYWATR024	63.84 (1621)	25.74 (654)	20.14 (511)	6 (152)	11.87 (301)	17.16 (436)	18 (457)	13.70 (348)	10.57 (268)	2.5 (64)
BAYWATR025	79.74 (2025)	29.18 (741)	18.55 (471)	8 (203)	10.85 (275)	19.67 (500)	22 (559)	12.11 (308)	10.05 (255)	2.5 (64)
BAYWATR026	92.74 (2355)	31.24 (793)	20.67 (525)	8 (203)	10.85 (275)	19.67 (500)	22 (559)	14.23 (361)	10.01 (254)	2.5 (64)
Model No.	L	M	N	P	Q	R				
BAYWATR022	1.5 (38)	26 (660)	12 (305)	6 (152)	2.87 (73)	9.95 (253)				
BAYWATR023	2 (51)	30 (762)	18 (457)	8.87 (225)	2.87 (73)	9.95 (253)				
BAYWATR024	2 (51)	36 (914)	18 (457)	13.87 (352)	2.87 (73)	9.13 (232)				
BAYWATR025	2 (51)	51 (1295)	18 (457)	14.12 (359)	1.87 (48)	8.61 (219)				
BAYWATR026	2 (51)	64 (1626)	18 (457)	14.12 (359)	3.75 (95)	8.58 (218)				

Figure 49. Discharge plenum and grille accessory

Table 86. Discharge plenum and grille dimensions – no heat – inches (millimeters)

Unit	Model No. ^(a)	A	B	C
TWE061	BAYPLNM015	37.94 (963.6)	21.94 (557.2)	28 (711.2)
TWE073, TWE090	BAYPLNM016	47.5 (1206.5)	24.99 (634.7)	28 (711.2)
TWE120	BAYPLNM017	63.5 (1612.9)	24.99 (634.7)	28 (711.2)
TWE150, TWE180	BAYPLNM018 ^(b)	79.5 (2019.3)	27.63 (701.8)	22 (558.8)
TWE240, TWE300	BAYPLNM019 ^(b)	92.5 (2349.5)	30.43 (772.9)	24 (609.6)
TWE061	BAYPLNM020	37.91 (962.9)	21.91 (556.5)	14.75 (374.65)
TWE090	BAYPLNM021	47.5 (1206.5)	24.99 (634.7)	14.75 (374.65)
TWE120	BAYPLNM022	63.5 (1612.9)	24.99 (634.7)	14.75 (374.65)

^(a) When installed horizontally, plenum/water coil must be self-supported.

^(b) For use with hydronic heat or no heat.

Figure 50. Discharge plenum and grille accessory


Dimensional Data

Table 87. Discharge plenum and grille dimensions – inches (millimeters) – (for use with electric heat)

Tons	Model No.	A	B	C
TWE061	BAYPLNM030	38.07 (967)	22.69 (576.3)	29.05 (738)
TWE073, TWE090	BAYPLNM031	47.86 (1216)	25.69 (652.5)	29.05 (738)
TWE120	BAYPLNM032	63.86 (1622)	25.69 (652.5)	29.05 (738)
TWE150, TWE180	BAYPLNM033	80.14 (2036)	29.10 (739.1)	35.11 (892)
TWE240, TWE300	BAYPLNM034	92.96 (2361)	31.10 (789.9)	35.05 (890)

Figure 51. Subbase accessory – inches (millimeters)

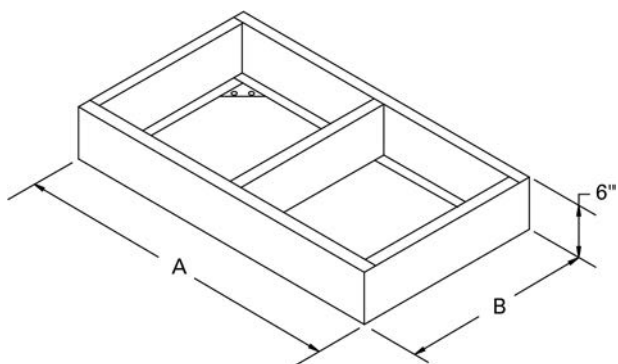


Table 88. Subbase dimensions – inches (millimeters)

Tons	Model No.	A	B
TWE061	BAYBASE009	38 (965.2)	22.63 (574.8)
TWE073, TWE090	BAYBASE010	47.5 (1206.5)	25.51 (648.0)
TWE120	BAYBASE011	63.5 (1612.9)	25.52 (648.2)
TWE150, TWE180	BAYBASE012	79.5 (2019.3)	29.04 (737.6)
TWE240, TWE300	BAYBASE013	92.5 (2349.5)	31.14 (791.0)



Weights

Cooling Condenser

Table 89. TTA unit and corner weights — lbs (60 Hz)

Tons	Model No.	Shipping Max (lbs)	Net Max (lbs)	Corner Weights			
				1	2	3	4
6	TTA073G	310	241	68	72	35	65
	TTA073H	348	279	90	82	54	53
7.5	TTA090G	320	251	71	75	37	68
	TTA090H	384	315	99	91	63	62
10	TTA120G	416	340	114	89	60	77
	TTA120H	428	352	110	102	71	69
	TTA120J	474	417	110	168	87	52
12.5	TTA150H	514	457	127	148	77	106
15	TTA180H	750	648	195	226	120	106
	TTA180J	750	648	195	226	120	106
20	TTA240H	904	762	239	218	149	156
	TTA240J	904	762	239	218	149	156
25	TTA300J	969	857	288	241	216	111

Figure 52. TTA073, 090, 120, 150

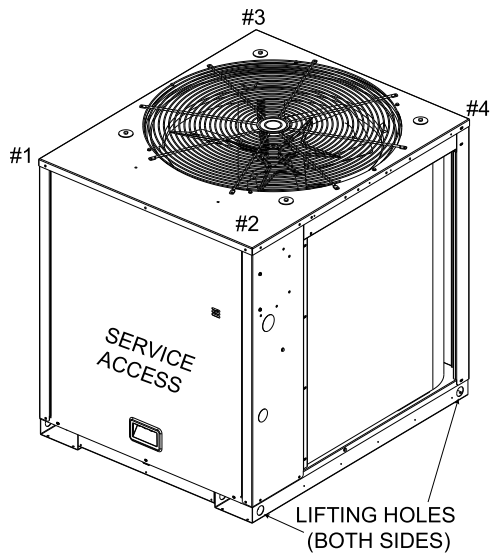
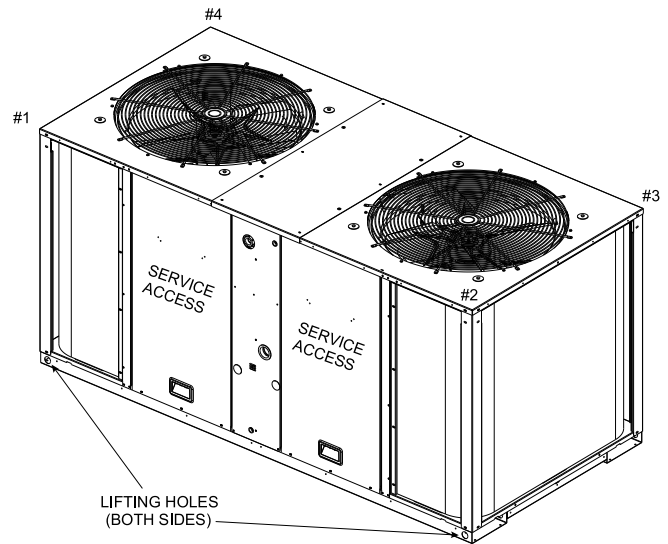


Figure 53. TTA180, 240, 300



Air Handler

Table 90. Standard air handler (TWE) — unit and corner weights - (60 Hz)

Tons	Model Number	Shipping Max (lbs)	Net Max (lbs)	Corner Weights - Vertical				Corner Weights - Horizontal			
				1	2	3	4	1	2	3	4
5	TWE061D/E	285	232	55	71	51	55	54	67	50	61
6	TWE073E	385	323	67	99	75	82	56	92	87	88
7.5	TWE090D/E	385	323	67	99	75	82	56	92	87	88
10	TWE120D/E	441	393	77	121	110	85	79	118	77	119
12.5	TWE150E	753	676	168	192	181	135	196	164	145	171
15	TWE180E	752	675	167	192	181	135	196	163	145	171
20	TWE240E	912	818	258	168	161	231	256	181	146	235
25	TWE300E	993	899	211	229	184	275	272	176	228	223

Table 91. SZVAV and 2-Speed VFD air handler (TWE) — unit and corner weights - (60 Hz)

Tons	Model Number	Shipping Max (lbs)	Net Max (lbs)	Corner Weights - Vertical				Corner Weights - Horizontal			
				1	2	3	4	1	2	3	4
6	TWE073E	385	323	67	99	75	82	56	92	87	88
7.5	TWE090E	385	323	67	99	75	82	56	92	87	88
10	TWE120D/E	441	393	77	121	110	85	79	118	77	119
12.5	TWE150E	753	676	168	192	181	135	196	164	145	171
15	TWE180E	752	675	167	192	181	135	196	163	145	171
20	TWE240E	912	818	258	168	161	231	256	181	146	235
25	TWE300E	993	899	211	229	184	275	272	176	228	223

Figure 54. Vertical — TWE061, 073, 090, 120

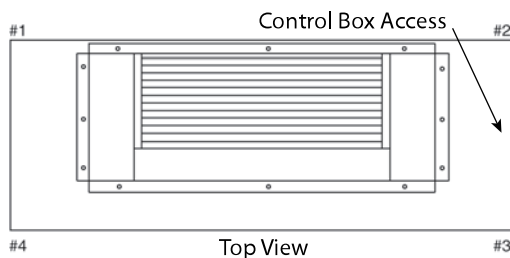


Figure 55. Vertical — TWE150, 180, 240, 300

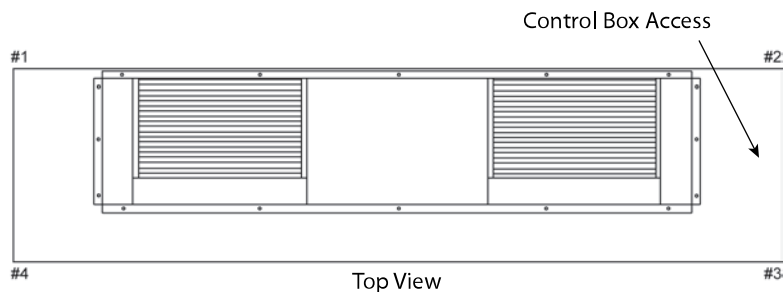


Figure 56. Horizontal — TWE061, 073, 090, 120

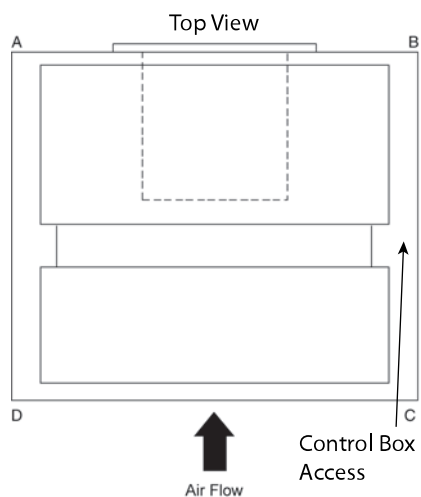
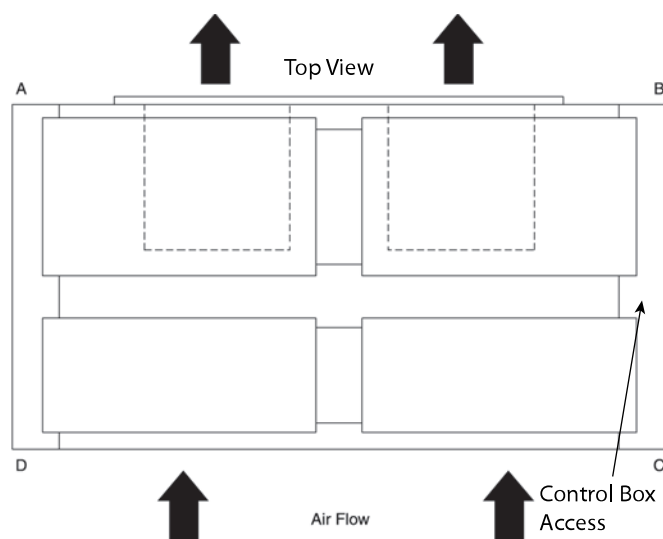


Figure 57. Horizontal — TWE150, 180, 240, 300



Accessories

Table 92. Accessory weights (net lbs.)

Unit Used with Tons	Hot Water Coil	Steam Coil	Discharge Plenum and Grille with Hydronic Heat	Discharge Plenum and Grille without Heat	Discharge Plenum and Grille with Electric Heat	Return Air Grille	Electric Heat Min/ Max	Subbase	Oversized Motor
6	116	131	78	73	160	5	27/45	19.4	48
7.5	116	131	78	73	160	5	27/45	19.4	48
10	165	148	97	92	195	7	27/45	23.5	50
12.5	211	234	—	230	235	10	79/100	28.4	80
15	211	234	—	230	235	10	79/100	28.4	80
20	242	261	—	145	265	12	79/100	31.7	88
25	242	261	—	145	265	12	79/100	31.7	—
Unit Used with Tons	RIS Isolator Floor Mount	RIS Isolator Suspend- ed Mount	Steel Spring Isolator Floor Mount	Steel Spring Isolator Suspend- ed Mount	Hail Guard	Control Trans- former	Sensors	Modulat- ing Low Ambient	On/Off Low Ambient
6	2	6	12	6	21	4	1	23	2
7.5	2	6	12	6	21	4	1	23	2
10	2	7	12	6	28	4	1	23	2
12.5	2	7	12	6	33	—	1	23	2
15	2	7	12	6	55	—	1	23 (req. qty 2)	1 (req. qty 2)
20	2	9	12	6	55	—	1	42 (req. qty 2)	1 (req. qty. 2)
25	2	9	12	6	71	—	1	42 (req. qty 2)	1 (req. qty. 2)



Mechanical Specifications

Condensing Units

Standard Options

General

- Weatherproofed steel mounting/lifting rails
- Hermetic scroll compressors
- Microchannel condenser coils
- Fans and motors
- Standard operating range 50-125°F (min. 0°F with low ambient accessory)
- Nitrogen holding charge
- Certified and rated in accordance with AHRI and DOE standards
- Certified to UL 1995
- Capacities and efficiencies for split systems are rated within the scope of the Air-Conditioning, Heating, & Refrigeration Institute (AHRI) certification program and display the AHRI Standard 340-360 (I-P) mark. This standard applies to units between 65,000 and 250,000 btu/hr.
- Capacities and efficiencies for split system cooling condensers are rated within the scope of the Air-Conditioning, Heating, & Refrigeration Institute (AHRI) certification program and display the AHRI Standard 365 (I-P) mark. This standard applies to cooling units between 135,000 and 250,000 btu/hr.

Casing

- Zinc coated, heavy gauge, galvanized steel
- Weather resistant baked enamel finish
- Meets ASTM B117, 672 hour salt spray test
- Removable single side maintenance access panels
- Lifting handles in maintenance access panels
- Unit base provisions for forklift and/or crane lifting

Refrigeration System - Single Compressor (TTA073G, TTA090G, TTA120G)

- Single refrigeration circuit with integral subcooling circuit
- Single direct drive hermetic scroll compressor
- Suction gas-cooled motor w/ $\pm 10\%$ voltage utilization range of unit nameplate voltage
- Crankcase heater
- Internal temperature and current sensitive motor overloads
- No compressor suction and/or discharge valves (reduced vibration/sound)
- Factory installed liquid line filter drier
- Phase loss/reverse rotation monitor
- Liquid line service valve (with gauge port)
- Suction line service valve (with gauge port)
- External high pressure cutout device
- External low pressure cutout device
- Evaporator defrost control
- Loss of charge protection (discharge temperature limit)

Refrigeration System - Dual Compressor (TTA073H, TTA090H, TTA120H, TTA150H, TTA180H, TTA240H)

- Two (2) separate and independent refrigerant circuits
- Each refrigeration circuit equipped with integral subcooling circuit
- Front or rear refrigerant line connections (TTA180H/240H)
- Two (2) direct drive hermetic scroll compressor
- Suction gas-cooled motors w/ $\pm 10\%$ voltage utilization range of unit nameplate voltage
- Crankcase Heaters

Mechanical Specifications

- Internal temperature and current sensitive motor overloads
- Factory installed liquid line filter driers
- Phase loss/reverse rotation monitor
- Liquid line service valves (with gauge port)
- Suction line service valves (with gauge port)
- No compressor suction and/or discharge valves (reduced vibration/sound)
- External high pressure cutout devices
- External low pressure cutout devices
- Evaporator defrost control
- Loss of charge protection (discharge temperature limit)

Refrigeration System - Dual Manifolder Compressors (TTA120J, TTA180J, TTA240J, TTA300J)

- Single refrigerant circuit with integral subcooling circuit
- Two (2) direct drive hermetic scroll compressor
- Suction gas-cooled motors w/ $\pm 10\%$ voltage utilization range of unit nameplate voltage
- Crankcase Heaters
- Internal temperature and current sensitive motor overloads
- No compressor suction and/or discharge valves (reduced vibration/sound)
- Factory installed liquid line filter drier
- Phase loss/reverse rotation monitor
- Liquid line service valve (with gauge port)
- Suction line service valve (with gauge port)
- External high pressure cutout devices
- External low pressure cutout devices
- Evaporator defrost control
- Loss of charge protection (discharge line thermostats)
- Front or rear refrigerant line connections (TTA 180J/240J/300J only)

Condenser Coil (Microchannel)

- Microchannel coils burst tested by the manufacturer
- Coils shall be leak tested to ensure the pressure integrity
- Factory pressure and leak tested to 660 psig
- Perforated steel hail guards available (factory installed option or field installed accessory)

Condenser Fan

- 26" or 28" propeller fan(s)
- Direct drive
- Statically and dynamically balanced

Condenser Motor(s)

- Permanently lubricated totally enclosed or open construction
- Built-in current and thermal overloads
- Ball or sleeve bearing type

Controls

- Choice of electromechanical or microprocessor
- Completely internally wired
- Numbered and colored wires
- Contactor pressure lugs or terminal block
- Unit external mounting location for disconnect device
- Single point power entry
- Front or rear electrical connections (TTA 180H/J, 240H/J, 300J only)

Factory Installed Options

Hail Guards

- Condenser coil protection from hail, vandals, etc.
- Perforated, painted galvanized steel
- Factory or field installed

Complete Coat™ Microchannel Condenser Coil

- Available on Microchannel units only
- Cathodic, epoxy-type, electro-disposition coating formulated for high edge build
- Coating provides excellent resistance and durability to corrosive effects of alkalis, acids, alcohols, petroleum, seawater, salty air and other corrosive environments

LonTalk Communication Interface

- Factory or field installed
- Communications board
- Allows unit communication as a Tracer™ LCI-R device
- Allows unit communication with generic LonTalk® Network building automation controls

Controls: Electro-Mechanical

- 24V control circuit
- Control transformer
- Thermostat compatible
- Anti-Short Cycle Timer

Controls: Microprocessor

- Centralized processor
- Indoor and outdoor temperature sensors drive algorithms, making decisions for all heating, cooling, and ventilation
- Integrated anti-short cycle timer
- Integrated time delay between compressors

Field Installed Options

Low Ambient (Fan ON/OFF)

- Provides unit cooling operation to outdoor ambient of 0°F
- Low cost solution
- Liquid line temperature controls condenser fan operation
- 1 kit per condenser fan required

Low Ambient (Modulating)

- Provides unit cooling operation to outdoor ambient of 0°F
- "Wave-chopper"
- Discharge line pressure controls condenser fan operation
- 1 kit per condenser fan required

Vibration Isolators

- Neoprene-in-shear or spring flex choice
- Reduce vibration transmission to building structures, equipment, and adjacent spaces
- Reduce noise transmission to building structures, equipment, and adjacent spaces

Hot Gas Bypass

- Provides capacity modulation solution

Zone Sensor

- Interfaces with microprocessor units
- Manual or automatic programmable



Mechanical Specifications

- System malfunction lights
- Remote sensor options
- Wireless option

Thermostat

- 1H/1C available
- 2H/1C available
- Manual or automatic changeover available
- Programmable and non-programmable solutions available

LonTalk Communication Interface

- Factory or field installed
- Communications board
- Allows unit communication as a Tracer™ LCI-R device
- Allows unit communication with generic LonTalk® Network building automation controls

BACnet Communication Interface

- Communicates directly with a generic open protocol BACnet MS/TP Network building automation system control

Air Handlers

Standard Options

General

- Completely factory assembled
- Convertible for horizontal or vertical configuration
- Convertible for cooling only or heat pump application
- Convertible for left or right external connections (refrigerant and/or electrical)
- Convertible for front or bottom air return
- Nitrogen holding charge
- Certified to UL 1995 for indoor blower coil units

Casing

- Zinc coated, heavy gauge, galvanized steel
- Weather resistant baked enamel finish
- Access panels with captive screws
- Completely insulated with foil faced, cleanable, fire retardant, permanent, odorless glass fiber material
- Captured or sealed insulation edges
- Electrical connection bushings or plugs
- Refrigerant connection bushings or plugs
- Withstand elevated internal static pressure

Refrigeration System

- Single or dual circuit
- Distributor(s)
- Thermal expansion valves (TXVs)

Evaporator Coil

- 3/8" internally enhanced copper tube mechanically bonded to lanced aluminum plate fins
- Factory pressure and leak tested to 449 psig.
- Draw-through airflow
- Dual circuits are interlaced/intertwined
- Double sloped, removable, cleanable, composite drain pan
- Four drain pan positions

Indoor Fan

- Double inlet, double width, forward curved, centrifugal type fan
- Dual fans on 12.5 - 25 ton air handlers
- Adjustable belt drive
- Permanently lubricated bearings

Indoor Motor

- Adjustable motor sheaves (standard units)
- Fixed motors sheaves (SZVAV and 2-Speed VFD)
- Thermal overload protection
- Permanently lubricated bearings
- Meet energy policy of 1992 (EPACT)
- Optional oversized motors for high static applications

Controls

- Completely internally wired
- Numbered and colored wires
- Magnetic indoor fan contactor
- Low voltage terminal strip
- Single point power entry
- Evaporator defrost control

Filters

- Access from side coil panels
- Filters slide on rack
- One inch (1"), throwaway filters on 5 - 10 ton units
- Filter rack convertible to two inch (2") capability on 5 - 10 ton units
- Two inch (2"), throwaway filters on 12.5 - 25 ton units

Factory Installed Options**2-Speed VFD Control**

- Variable Frequency Drive (VFD)
- Motor soft start — avoids start up belt noise and increases belt life
- Programmable keypad accessible outside of airstream
- VFD rated motor
- Factory installed high static motor available

Single Zone Variable Air Volume

- Variable Frequency Drive (VFD)
- Motor soft start — avoids start up belt noise and increases belt life
- Programmable keypad accessible outside of airstream
- Airflow adjustment via potentiometer
- Discharge air sensor
- ReliaTel options module
- VFD rated motor
- Factory installed high static motor available

Field Installed Options**Electric Heaters**

- Heavy duty nickel chromium elements
- Agency approved
- Installs directly on fan discharge
- One or two stage control (dependent upon capacity)

Mechanical Specifications

- Single point power entry
- Terminal strip connections
- 460V Heaters
 - Internally wye connected
 - Automatic line break high limit controls
- 230V Heaters
 - Internally delta connected
 - Automatic reset of high limit controls through pilot duty with secondary backup fuse links

Hydronic Heat Coils

- One row steam
- Two row hot water
- Installs directly on fan discharge
- Heavy gauge sheet metal casing matches air handler
- Convertible for horizontal or vertical configurations

Discharge Plenums and Grilles

- Vertical, free discharge applications
- Heavy gauge sheet metal casing matches air handler
- Satin-finished, 4-way adjustable louver grilles

Return Air Grilles

- Vertical, free discharge applications
- Satin-finished, non-adjustable louver grilles
- Replaces front lower access panel

Mounting Sub-Base

- Vertical floor mount configuration requirement
- Heavy gauge sheet metal casing matches air handler
- Provides additional clearance for condensate drain trapping
- Required when isolators are used

Vibration Isolators

- Neoprene-in-shear or spring flex choice
- Floor or suspended applications
- Reduce vibration transmission to building structures, equipment, and adjacent spaces
- Reduce noise transmission to building structures, equipment, and adjacent spaces

Oversize Motors

- High static applications
- Motor, sheaves, belt included



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