



Product Catalog

Split System Air Conditioners Odyssey™

Heat Pump Condenser — 6 to 20 Tons — 60 Hz

Air Handler — 5 to 20 Tons — 60 Hz



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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

- Weights, dimensional drawings have been updated to reflect that service valves are no longer a factory installed feature.
- Running edits included.



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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.

Standard and Optional Features

Figure 1. Compressors

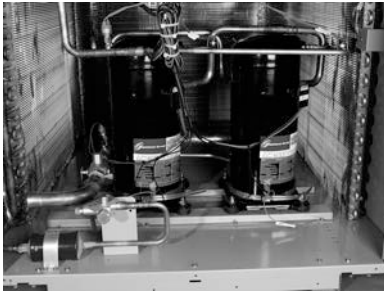


Figure 2. Belt drive motor

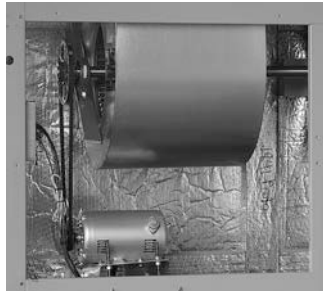


Figure 3. Easy access to terminal board



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.

Black Epoxy Pre-Coated Condenser Coils — The pre-coated coils are an economical option for protection in mildly corrosive environments.

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 6-20 ton models and allow for efficient cooling utilizing 2-stages of compressor operation.

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.

Heat Pump Fan Fail Consideration — In the event that airflow is not available during heating operation, a bi-metallic switch is mounted on the VFD bracket to turn off the compressors and prevent overheating of the motor and VFD.

Note: For SZVAV units only.

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



Features

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.

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 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		
Anti-Short Cycle Timer	X		
Belt Drive Motors	X		
Black Epoxy Pre-Coated Coils		X	
Colored and Numbered Wiring	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		

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

Table 1. Odyssey features – standard and optional (continued)

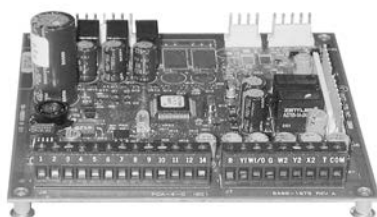
	Standard Features	Options ^(a)	
		Factory Installed	Field Installed
High Static Motor Kit ^(b)			X
IAQ Dual Sloped and Removable Drain Pans	X		
Liquid Line Refrigerant Drier	X		
Low Ambient Cooling			X
Low Ambient Cooling to 50°F on Electromechanical Models	X		
Low Pressure Control	X		
Low Static Motor 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.

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

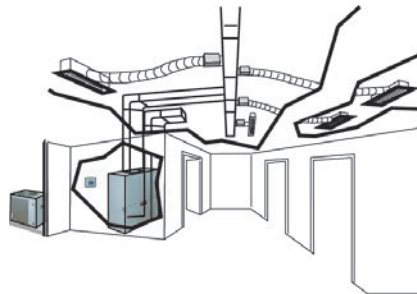
ReliaTel requires no special tools to run the unit through its paces. Simply place a jumper between Test 1 and Test 2 terminals on the Low Voltage Terminal Board and the unit will walk through its operational steps automatically. The unit automatically returns control to the zone sensor after stepping 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™.

Frostat™ — 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.

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	
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

Heat Pump Condenser

Table 3. TWA Accessories

Model	Used With
Coil (Hail/Vandal) Guard	
BAYGARD058*	TWA072**A, TWA090**A
BAYGARD059*	TWA072**D, TWA090**D
BAYGARD060*	TWA120
BAYGARD061*	TWA180, TWA240
Rubber Isolators	
BAYISLT005* (black)	TWA072, TWA090, TWA120
BAYISLT009* (red)	TWA180
BAYISLT010* (green)	TWA240
Steel Spring Isolators	
BAYISLT023* (red)	TWA072, TWA090, TWA120
BAYISLT024* (black)	TWA180
BAYISLT025* (yellow)	TWA240
Service Valve Kit	
BAYVALV001A	TWA0724*A, TWA1204*A
BAYVALV002A	TWA0904*A
BAYVALV003A	TWA0724*D, TWA0904*D, TWA1204*D
BAYVALV006A	TWA01804*D, TWA2404*D
Low Ambient — On/Off Fan Control (External mount, small cabinets)^{(a) (b) (c)}	
BAYLOAMU01* (External Mount, small cabinets) ^(d)	(all voltages) TWA072**A, TWA090**A
BAYLOAMU02* (Internal mount, large cabinets)	(all voltages) TWA120, TWA180, TWA240
Head Pressure Control^(b)	
BAYLOAM335* (208–230V, 0.5 HP, Hi-Eff Motor)	TWA072*3A/D, TWA090*3A/D
BAYLOAM336* (208–230V, 1 HP, Hi-Eff Motor)	TWA120*3A/D, TWA180*3D, TWA240*3D
BAYLOAM435* (380–460V, 0.5HP Hi-Eff Motor)	TWA072*4A/D, TWA090*4A/D
BAYLOAM436* (380–460V, 1 HP Hi-Eff Motor)	TWA120*4A/D, TWA180*4D, TWA240*4D
BAYLOAMW36* (575V, 1 HP, Hi-Eff Motor)	TWA120*WA/D, TWA180*WD, TWA240*WD
Transducer Kit for Head Pressure Control (BAYLOAM335, 336, 435, 436, W36)	
BAYLOTR001* ^(e)	TWA072**D, TWA090**D, TWA120**D
Trane Communication (3/4 Communications Interface)^(f)	
BAYICSI003*	All Models
LonTalk Communications Interface^(f)	
BAYLTICI002*	All Models

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

^(b) Quantity of 1 required for each fan (2 total for ton and larger).

^(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 (dual circuit) 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)	
BAYBASE009*	TWE060
BAYBASE0010*	TWE072, TWE090
BAYBASE0011*	TWE120
BAYBASE0012*	TWE150, TWE180
BAYBASE0013*	TWE240
Drip Kit	
BAYDRKT006*	TWE060
BAYDRKT007*	TWE072, TWE090
BAYDRKT008*	TWE120
BAYDRKT009*	TWE150, TWE180
BAYDRKT010*	TWE240
High Static Motor Kits^(a)	
BAYHSMT104* — 1.5HP (230/1) with Motor Sheave, Fan Sheave and Belt	TWE060*1A/B
BAYHSMT105* — 1.5HP (230-460/3) with Motor Sheave, Fan Sheave and Belt	TWE060*3A/B, TWE060*4A/B
BAYHSMT106* — 1.5HP (575/3) with Motor Sheave, Fan Sheave and Belt	TWE060*WA
BAYHSMT107* — 2 HP (230/1) with Motor Sheave, Fan Sheave and Belt	TWE090*1A/B
BAYHSMT108* — 2HP (230-460/3) with Motor Sheave, Fan Sheave and Belt	TWE072*3B, TWE090*3A/B
BAYHSMT109* — 2 HP (575/3) with Motor Sheave, Fan Sheave and Belt	TWE072*WB, TWE090*WA/B
BAYHSMT110* — 3HP (230/460/3) with Motor Sheave, Fan Sheave and Belt	TWE072*3B, TWE090*3A/B
BAYHSMT111* — 3 HP (575/3) with Motor Sheave, Fan Sheave and Belt	TWE072*WB, TWE090*WA/B
BAYHSMT112* — 3HP (230/460/3) with Motor Sheave, Fan Sheave and Belt	TWE120*3A/B
BAYHSMT113* — 3 HP (575/3) with Motor Sheave, Fan Sheave and Belt	TWE120*WA/B
BAYHSMT114* — 3HP (230/460/3) with Motor Sheave, Fan Sheave and Belt	TWE150*3B
BAYHSMT115* — 3 HP (575/3) with Motor Sheave, Fan Sheave and Belt	TWE150*WB
BAYHSMT116* — 5 HP (230/3) with Motor Sheave, Fan Sheave and Belt	TWE150*3B
BAYHSMT117* — 5HP (460/3) with Motor Sheave, Fan Sheave and Belt	TWE150*3B
BAYHSMT118* — 5 HP (575/3) with Motor Sheave, Fan Sheave and Belt	TWE150*WB
BAYHSMT119* — 5 HP (208-230/3) with Motor Sheave and Fan Sheave (Stock Belt used)	TWE180*3B
BAYHSMT120* — 5HP (460/380-415/3) with Motor Sheave and Fan Sheave (Stock Belt used)	TWE180*3B
BAYHSMT121* — 5 HP (575/3) with Motor Sheave and Fan Sheave (Stock Belt used)	TWE180*WB
BAYHSMT122* — 7.5 HP (230/460/3) with Motor Sheave, Fan Sheave and Belt	TWE240*3B, TWE240*4B
BAYHSMT123* — 7.5 HP (575/3) with Motor Sheave, Fan Sheave and Belt	TWE240*WB
Rubber Isolators^{(b) (c) (d)}	
BAYISLT004* (Floor — Blue)	TWE060, TWE072, TWE090, TWE120
BAYISLT009* (Floor — Red) ^(e)	TWE150, TWE180
BAYISLT010* (Floor — Green) ^{(e)(b)}	TWE240,
BAYISLT012* (Suspended —Red/Green)	TWE150, TWE180
BAYISLT013* (Suspended —Red/Green) ^(d)	TWE060
BAYISLT014* (Suspended — Green) ^(d)	TWE072, TWE090
BAYISLT015* (Suspended — Green/Black) ^(d)	TWE120
BAYISLT016* (Suspended —Red/Green)	TWE240



Accessories

Table 4. TWE Accessories (continued)

Model	Used With
Steel Spring Isolators^(c)	
BAYISLT019* (Floor — Red) ^{(e)(b)}	TWE060, TWE072, TWE090, TWE120
BAYISLT021* (Floor — Black) ^{(e)(b)}	TWE150, TWE180
BAYISLT032* (Floor — Black/Yellow) ^{(e)(b)}	TWE240
BAYISLT028* (Suspended — Tan)	TWE060
BAYISLT029* (Suspended — Red)	TWE072, TWE090, TWE120
BAYISLT030* (Suspended — Black)	TWE150, TWE180
BAYISLT031* (Suspended — Black/Yellow)	TWE240
Low Static Drive Kit^(a)	
BAYLSMT001*	TWE240*3, TWE240*4
Plenum^(f)	
BAYPLNM015* (Discharge Plenum & Grille) ^(f)	TWE060
BAYPLNM016* (Discharge Plenum & Grille) ^(f)	TWE072, TWE090
BAYPLNM017* (Discharge Plenum & Grille) ^(f)	TWE120
BAYPLNM018* (Discharge Plenum/Hydronic Coil Plenum & Grille) ^(f)	TWE150, TWE180
BAYPLNM019* (Discharge Plenum/Hydronic Coil Plenum & Grille) ^(f)	TWE240
BAYPLNM020* (Hydronic Coil Discharge Plenum & Grille) ^(f)	TWE060
BAYPLNM021* (Hydronic Coil Discharge Plenum & Grille) ^(f)	TWE072, TWE090
BAYPLNM022* (Hydronic Coil Discharge Plenum & Grille) ^(f)	TWE120
BAYPLNM030* (Electric Heat Discharge Plenum & Grille) ^(f)	TWE060
BAYPLNM031* (Electric Heat Discharge Plenum & Grille) ^(f)	TWE072, TWE090
BAYPLNM032* (Electric Heat Discharge Plenum & Grille) ^(f)	TWE120
BAYPLNM033* (Electric Heat Discharge Plenum & Grille) ^(f)	TWE150, TWE180
BAYPLNM034* (Electric Heat Discharge Plenum & Grille) ^(f)	TWE240
Return Air Grille	
BAYGRLE001*	TWE060
BAYGRLE002*	TWE072, TWE090
BAYGRLE003*	TWE120
BAYGRLE004*	TWE150, TWE180
BAYGRLE005*	TWE240
Transformer	
BAYTFMR011* — 75va transformer (230V) ^(g)	TWE072*3B*****0, TWE090*3A*****0/B*****0, TWE120*3A*****0/B*****0, TWE120*3B*****A, TWE150*3B*****A
BAYTFMR012* — 75va transformer (460/575V) ^(g)	460V = TWE072*3B*****0, TWE090*3A*****0/B*****0, TWE120*3A*****0/B*****0, TWE120*4B*****A, TWE150*4B*****A; 575V = TWE072*WB*****0, TWE090*WA*****0/B*****0, TWE120*WA*****0/B*****0
Water Kits	
BAYWATR022* (Steam Coil Enclosure) ^(f)	TWE060
BAYWATR023* (Steam Coil Enclosure) ^(f)	TWE072, TWE090
BAYWATR024* (Steam Coil Enclosure) ^(f)	TWE120
BAYWATR025* (Steam Coil Enclosure) ^(f)	TWE150, TWE180
BAYWATR026* (Steam Coil Enclosure) ^(f)	TWE240
BAYWATR027* (Hot Water Coil Enclosure) ^(f)	TWE060
BAYWATR028* (Hot Water Coil Enclosure) ^(f)	TWE072, TWE090
BAYWATR029* (Hot Water Coil Enclosure) ^(f)	TWE120
BAYWATR030* (Hot Water Coil Enclosure) ^(f)	TWE150, TWE180
BAYWATR031* (Hot Water Coil Enclosure) ^(f)	TWE240

Table 4. TWE Accessories (continued)

Model	Used With
Wire Kit — 180° Blower Discharge Reversal Kit^(h)	
BAYWRKT002*	TWE060, TWE072, TWE090, TWE120

(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	
BAYHTRL106* — 4.33/5.76 kW Heater 208/240/1 Phase	TWE060*1, TWE090*1, TWE120*1
BAYHTRL112* — 8.65/11.52 kW Heater 208/240/1 Phase	TWE060*1, TWE090*1, TWE120*1
BAYHTRL117* — 12.98/17.28 kW Heater 208/240/1 Phase	TWE060*1, TWE090*1, TWE120*1
BAYHTRL123* — 17.31/23.04 kW Heater 208/240/1 Phase	TWE060*1, TWE090*1, TWE120*1
BAYHTRL129* — 21.63/28.80 kW Heater 208/240/1 Phase	TWE090*1, TWE120*1
BAYHTRL305* — 3.76/5.00 kW Heater 208/240/3 Phase	TWE060*3, TWE072*3B, TWE090*3, TWE120*3 (STD, VFD, & OS MTR)
BAYHTRL310* — 7.48/9.96 kW Heater 208/240/3 Phase	TWE060*3, TWE072*3B, TWE090*3, TWE120*3 (STD, VFD, & OS MTR)
BAYHTRL315* — 11.24/14.96 kW Heater 208/240/3 Phase	TWE060*3, TWE072*3B, TWE090*3, TWE120*3 (STD, VFD, & OS MTR)
BAYHTRL325* — 18.72/24.92 kW Heater 208/240/3 Phase	TWE060*3, TWE072*3B, TWE090*3, TWE120*3 (STD, VFD, & OS MTR)
BAYHTRL335* — 26.20/34.88 kW Heater 208/240/3 Phase	TWE072*3B, TWE090*3, TWE120*3 (STD, VFD, & OS MTR)
BAYHTRL405* — 5.00 kW Heater 460/3 Phase ^(a)	TWE060*4, TWE072*3*****0, TWE072*4*****A/B, TWE090*3*****0, TWE090*4B*****A/B, TWE120*3*****0, TWE120*4*****A/B
BAYHTRL410* — 9.96 kW Heater 460/3 Phase ^(a)	TWE060*4, TWE072*3*****0, TWE072*4*****A/B, TWE090*3*****0, TWE090*4B*****A/B, TWE120*3*****0, TWE120*4*****A/B
BAYHTRL415* — 14.96 kW Heater 460/3 Phase ^(a)	TWE060*4, TWE072*3*****0, TWE072*4*****A/B, TWE090*3*****0, TWE090*4B*****A/B, TWE120*3*****0, TWE120*4*****A/B
BAYHTRL425* — 24.92 kW Heater 460/3 Phase ^(a)	TWE060*4, TWE072*3*****0, TWE072*4*****A/B, TWE090*3*****0, TWE090*4B*****A/B, TWE120*3*****0, TWE120*4*****A/B
BAYHTRL435* — 34.88 kW Heater 460/3 Phase ^(a)	TWE072*3*****0, TWE072*4*****A/B, TWE090*3*****0, TWE090*4B*****A/B, TWE120*3*****0, TWE120*4*****A/B
BAYHTRLW05* — 5 kW Heater 575/3 Phase	TWE060*W, TWE072*W, TWE090*W, TWE120*W (STD, VFD, & OS MTR)
BAYHTRLW10* — 9.96 kW Heater 575/3 Phase	TWE060*W, TWE072*W, TWE090*W, TWE120*W (STD, VFD, & OS MTR)
BAYHTRLW15* — 14.96 kW Heater 575/3 Phase	TWE060*W, TWE072*W, TWE090*W, TWE120*W (STD, VFD, & OS MTR)
BAYHTRLW25* — 24.92 kW Heater 575/3 Phase	TWE060*W, TWE072*W, TWE090*W, TWE120*W (STD, VFD, & OS MTR)
BAYHTRLW35* — 34.88 kW Heater 575/3 Phase	TWE072*W, TWE090*W, TWE120*W (STD, VFD, & OS MTR)



Accessories

Table 5. Electric heaters (continued)

Model	Used With
12.5–20 Ton Electric Heater Selection	
BAYHTRM310* — 7.51/10.0 kW Heater 208/230 3 Phase	TWE150*3, TWE180*3, TWE240*3 (STD, VFD, & OS MTR)
BAYHTRM320* — 14.96/19.92 kW Heater 208/230 3 Phase	TWE150*3, TWE180*3, TWE240*3 (STD, VFD, & OS MTR)
BAYHTRM330* — 22.47/29.92 kW Heater 208/230 3 Phase	TWE150*3, TWE180*3, TWE240*3 (STD, VFD, & OS MTR)
BAYHTRM350* — 37.44/49.84 kW Heater 208/230 3 Phase	TWE150*3, TWE180*3, TWE240*3 (STD, VFD, & OS MTR)
BAYHTRM410* — 10.0 kW Heater 460/3 Phase ^(a)	TWE150*3*****0, TWE150*4*****A/B, TWE180*3*****0, TWE180*4*****A/B, TWE240*4 (STD, VFD, & OS MTR)
BAYHTRM420* — 19.92 kW Heater 460/3 Phase ^(a)	TWE150*3*****0, TWE150*4*****A/B, TWE180*3*****0, TWE180*4*****A/B, TWE240*4 (STD, VFD, & OS MTR)
BAYHTRM430* — 29.92 kW Heater 460/3 Phase ^(a)	TWE150*3*****0, TWE150*4*****A/B, TWE180*3*****0, TWE180*4*****A/B, TWE240*4 (STD, VFD, & OS MTR)
BAYHTRM450* — 49.84 kW Heater 460/3 Phase ^(a)	TWE150*3*****0, TWE150*4*****A/B, TWE180*3*****0, TWE180*4*****A/B, TWE240*4 (STD, VFD, & OS MTR)
BAYHTRMW10* — 10.0 kW Heater 575/3 Phase	TWE150*W, TWE180*W, TWE240*W (STD, VFD, & OS MTR)
BAYHTRMW20* — 19.92 kW Heater 575/3 Phase	TWE150*W, TWE180*W, TWE240*W (STD, VFD, & OS MTR)
BAYHTRMW30* — 29.92 kW Heater 575/3 Phase	TWE150*W, TWE180*W, TWE240*W (STD, VFD, & OS MTR)
BAYHTRMW50* — 49.84 kW Heater 575/3 Phase	TWE150*W, TWE180*W, TWE240*W (STD, VFD, & OS MTR)

Note: Electric Heaters not available for 380/60hz

^(a) BAYHTRL4 & BAYHTRM4* 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

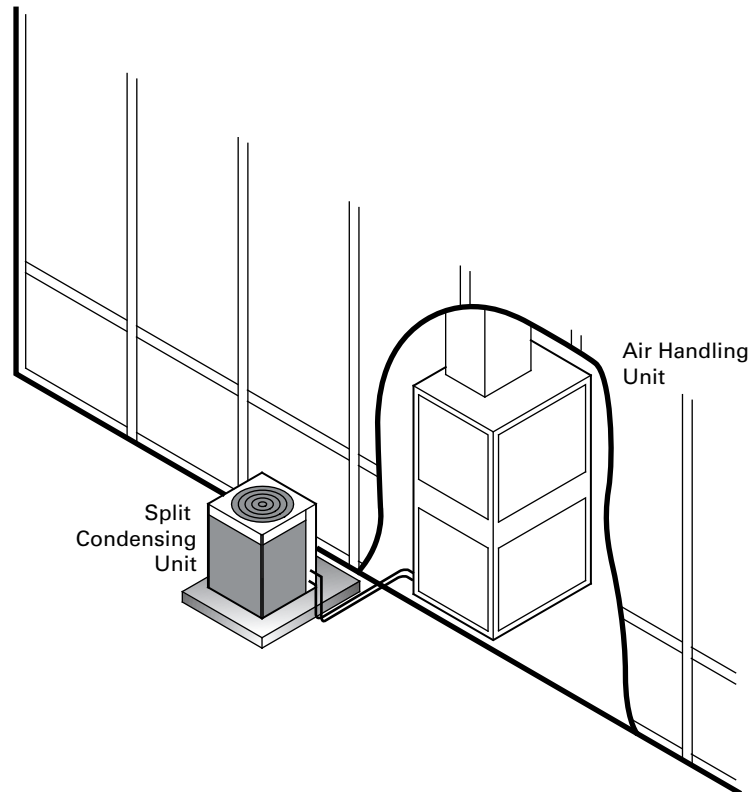


Figure 6. Typical horizontal air handler application

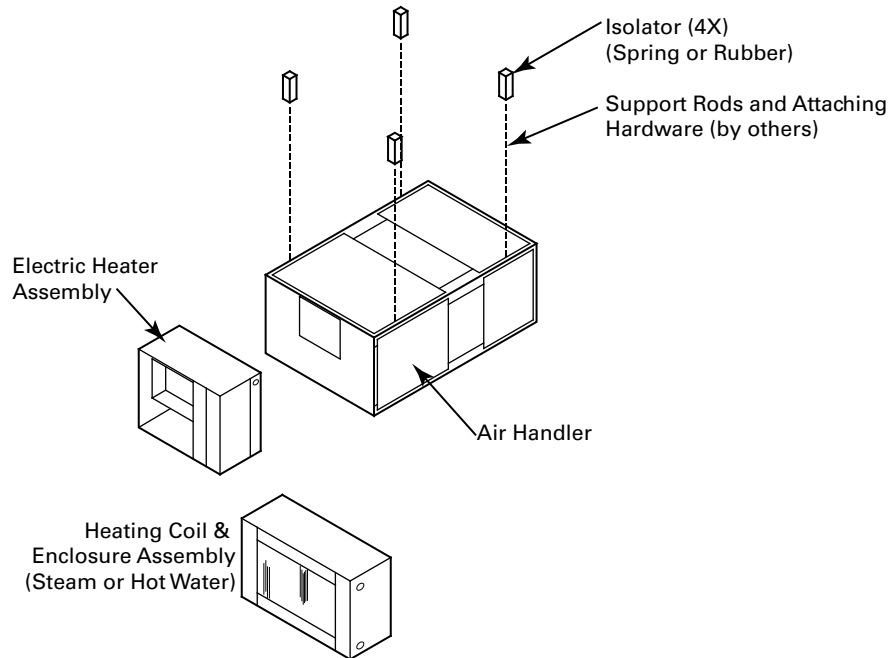
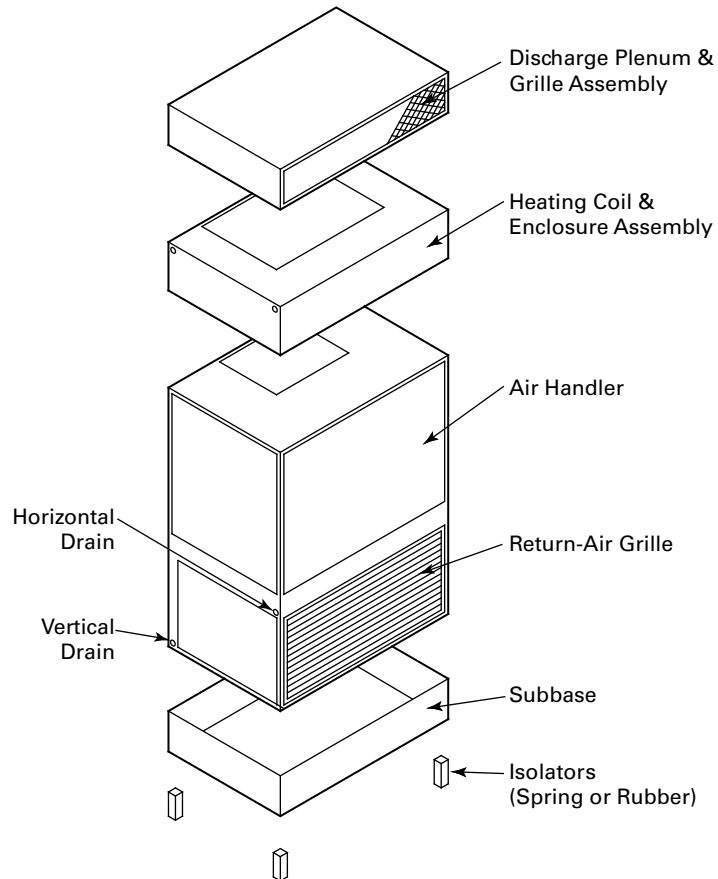


Figure 7. Typical vertical air handler application





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. 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: 82 MBh
Sensible Cooling Load: 60 MBh
Airflow: 3000 cfm
External Static Pressure: 0.77 inches of water gauge
3. Use to determine that TWA09043A with TWE09043A has a gross cooling capacity of 90.0 and 74.1 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 39, p. 51](#) shows 1.97 Bhp (high static drive kit required).*
- *This formula can be used to calculate Fan Motor Heat:*
$$3.15 \times \text{Bhp} = \text{MBh}$$
$$3.15 \times 1.97 = 6.2 \text{ MBh}$$
$$\text{Net Total Cooling Capacity} = 90.0 \text{ MBh} - 6.2 \text{ MBh} = 83.8 \text{ MBh}$$
$$\text{Net Sensible Cooling Capacity} = 74.1 \text{ MBh} - 6.2 \text{ MBh} = 67.9 \text{ MBh}$$

Heating Capacity

1. Calculate the building heating load using the Trane calculation form or any other standard accepted method.
2. Size the equipment using to match the heating loads at design conditions. For example, if the following specifies the building heating requirements:
Total Heating Load: 95.0 MBh
Outdoor Ambient (Winter): 17°F DB
Indoor Return Temperature: 70°F DB
Airflow: 2625 cfm
3. indicates the mechanical heating portion of the heat pump will provide 48.2 MBh for the winter design conditions. Full heat load must be carried by the supplementary heater in the unlikely event the heat pump malfunctions. From , the 34.88 kW heater at 460V has a capacity of 119,045. From , the 34.88 kW heater at 460V indicates the heater model is BAYHTRL435.



Selection Procedure

Air Delivery

1. The external static pressure drop through the air distribution system is 0.77 inches of water gauge, use 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 39, p. 51](#) for TWE09043A at 2625 cfm and 1.00 static pressure. The high static motor at 995 RPM gives the desired airflow.



Model Number Description

Heat Pump Condenser

Digit 1–3 — Unit Function

TWA = Split System Heat Pump

Digit 4–6 — Tonnage

072 = 6 Tons (60Hz)
090 = 7.5 Tons (60Hz)
120 = 10 Tons (60Hz)
180 = 15 Tons (60Hz)
240 = 20 Tons (60Hz)

Digit 7 — Refrigerant

4 = R-410A

Digit 8 — Voltage

3 = 208-230VAC - 3 PH (60Hz)
4 = 460VAC - 3 PH (60Hz)
W = 575VAC - 3 PH (60Hz)
K = 380VAC - 3 PH (60Hz)

Digit 9 — Refrigeration Circuit/Stage

A = 1 Compressor/1 Line/1 Stage (Single)
D = 2 Compressors/2 Line/2 Stage (Duals)

Digit 10 — Major Design Sequence

A = Rev A

Digit 11 — Minor Design Sequence

B = Rev B

Digit 12–13 — Service Digits

00 = 00

Digit 14 — Efficiency Generation

A = Generation A

Digit 15 — Controls

R = ReliaTel™

Digit 16 — None

0 = None

Digit 17 — Coil Protection

0 = Standard Coil
1 = Standard Coil w/ Hail Guard
2 = Black Epoxy Pre-Coated Condenser Coil (FIN/TUBE)
3 = Black Epoxy Pre-Coated Condenser Coil with Hail Guard (FIN/TUBE)

Digit 18–20 — None

0 = None

Digit 21 — Communications Options

0 = No Option
2 = LonTalk® Communications Interface (LCI)

Digit 22–40 — None

0 = None



Model Number Description

Air Handler

Digit 1–3 — Unit Function

TWE = Air Handler

Digit 4–6 — Tonnage

060 = 5 Tons (60Hz)
072 = 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 — Refrigerant

4 = R-410A

Digit 8 — Voltage

1 = 208-230VAC - 1 PH (60Hz)
3 = 208-230VAC - 3 PH (60Hz)
4 = 460VAC - 3 PH (60Hz)
W = 575VAC - 3 PH (60Hz)
K = 380VAC - 3 PH (60Hz)

Digit 9 — Refrigeration Circuit/Stage

A = Single Circuit
B = Dual Circuit

Digit 10 — Major Design Sequence

A = Rev A

Digit 11 — Minor Design Sequence

A = Rev A

Digit 12–13 — Service Digits

00 = 00

Digit 14 — Efficiency Generation

A = Generation A (2018 DOE)

Digit 15 — Controls

0 = Constant Volume
A = 2 Stage Airflow (Electromechanical Cond Only)
B = Single Zone VAV (ReliaTel Cond Only)

Digit 16 — Indoor Fan Sizes

0 = Standard Motor
4 = High Static – (Oversized Motor for VFD Units)

Digit 17–40 — None

0 = None



General Data

Table 6. General data for 6 - 7.5 ton (TWA0724*A*-TWA0904*D*) heat pump units, 60 Hz

	6 Tons Single Comp TWA0724*A*	6 Tons Dual Comp TWA0724*D*	7.5 Tons Single Comp TWA0904*A*	7.5 Tons Dual Comp TWA0904*D*
Cooling Performance - Gross Cooling Capacity				
Matched Air Handler	TWE0904*A*	TWE0724*B*	TWE0904*A*	TWE0904*B*
AHRI Rated Airflow	2,400	2,400	2,625	3,000
Gross Cooling Capacity - System	82,000	78,000	88,000	96,000
Condensing Unit Only	76,000	71,000	84,000	88,000
AHRI Net Cooling Capacity	80,000	77,000	86,000	93,000
Efficiency				
Matched Air Handler (EER)	11.3	11.2	11.3	11.2
Condensing Unit Only (EER)	13.0	12.7	11.0	12.8
System (IEER)	12.4	12.2	12.4	12.2
System kW/Condensing Unit kW	6.4 / 5.9	6.1 / 5.6	7.6 / 6.8	7.6 / 6.8
Heating Performance - AHRI Htg/Matched AH				
High Temperature Capacity	72,000	64,000	79,000	82,000
System kW/COP	5.79 / 3.3	5.08 / 3.3	6.3 / 3.3	6.36 / 3.3
Low Temperature Capacity	46,000	38,000	50,000	51,500
System kW/COP	5.38 / 2.25	4.69 / 2.25	5.7 / 2.25	6.04 / 2.25
Compressor				
Type	Scroll	Scroll	Scroll	Scroll
No./Tons	1/5.6	2/2.6	1/6.3	2/3.25
System Data				
No. Refrigerant Circuits ^(a)	1	2	1	2
Suction Line (in.) OD ^(a)	1 3/8	7/8	1 3/8	1 1/8
Liquid Line (in.) OD ^(a)	1/2	1/2	1/2	1/2
Outdoor Coil				
Type / Tube Size (in.) OD	Lanced / 0.375	Lanced / 0.375	Lanced / 0.375	Lanced / 0.375
Face Area (sq ft)	19.24	19.24	19.24	23.96
Rows/FPI (Fins per inch)	2/18	2/18	2/18	2/18
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	6,530	6,530	6,530	6,530
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	20.4	11.0/11.0	22.2	11.8/11.8
Shipping Dimensions				
HxWxD (in.)	45" x 45" x 38"	45" x 55" x 42"	45" x 45" x 38"	45" x 55" x 42"

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



General Data

Table 7. General data for 10 - 20 ton (TWA1204*A*-TWA2404*D*) heat pump units, 60 Hz

	10 Tons Single Comp TWA1204*A*	10 Tons Dual Comp TWA1204*D*	15 Tons Dual Comp TWA1804*D*	20 Tons Dual Comp TWA2404*D*
Cooling Performance - Gross Cooling Capacity				
Matched Air Handler	TWE1204*A*	TWE1204*B*	TWE1804*B*	TWE2404*B*
AHRI Rated Airflow	4,000	3,500	6,000	8,000
Gross Cooling Capacity - System	127,000	120,000	194,000	258,000
Condensing Unit Only	117,000	115,000	176,000	276,000
AHRI Net Cooling Capacity	123,000	118,000	188,000	248,000
Efficiency				
Matched Air Handler (EER)	11.3	11.2	10.8	10.0
Condensing Unit Only (EER)	12.5	12.6	11.9	12.8
System (IEER)	12.4	12.2	11.6	10.6
System kW/Condensing Unit kW	10.6 / 9.4	9.9 / 9.1	17 / 14.8	24 / 21.6
Heating Performance - AHRI Htg/Matched AH				
High Temperature Capacity	120,000	112,000	178,000	238,000
System kW/COP	9.92 / 3.3	8.98 / 3.3	15.67 / 3.2	21.5 / 3.2
Low Temperature Capacity	76,000	71,000	117,000	148,000
System kW/COP	9.30 / 2.25	8.29 / 2.25	14.21 / 2.05	19.1 / 2.05
Compressor				
Type	Scroll	Scroll	Scroll	Scroll
No./Tons	1/8.6	2/4.3	2/6.9	2/10.1
System Data				
No. Refrigerant Circuits ^(a)	1	2	2	2
Suction Line (in.) OD ^(a)	1 3/8	1 1/8	1 1/8	1 3/8
Liquid Line (in.) OD ^(a)	1/2	1/2	1/2	5/8
Outdoor Coil				
Type / Tube Size (in.) OD	Lanced / 0.375	Lanced / 0.375	Lanced / 0.375	Lanced / 0.375
Face Area (sq ft)	29.02	29.02	52.60	52.60
Rows/FPI (Fins per inch)	2/18	2/18	2/18	2/18
Outdoor Fan				
Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter (in.)	1/28	1/28	2/28	2/28
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM	9,800	9,800	19,500	19,500
No. Motor/HP	1/1	1/1	2/1	2/1
Motor RPM	1,100	1,100	1,100	1,100
Refrigerant Charge (Field Supplied)				
lbs of R-410A	34.7	14.0/14.0	27.2/24.5	23.5/23.5
Shipping Dimensions				
HxWxD (in.)	52.1" x 55" x 42"	52.1" x 55" x 42"	51.1" x 96" x 48"	51.1" x 96" x 48"

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

Table 8. General data — 5-7.5 tons (TWE0604*A*-TWE0904*B*) standard air handler — 60 Hz

	5 Tons	5 Tons	6 Tons	7.5 Tons	7.5 Tons
	Single Circuit TWE0604*A*	Dual Circuit TWE0604*B*	Dual Circuit TWE0724*B*	Single Circuit TWE0904*A*	Dual Circuit TWE0904*B*
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 41A/B and 4KA/B models.

^(a) One inch, throw-away filters shall be standard on TWE060, TWE072, 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 TWE1804*B and TWE2404*B models.

Table 9. General data — 10-20 tons (TWE1204*A*-TWE2404*B*) standard air handler — 60 Hz

	10 Tons	10 Tons	12.5 Tons	15 Tons	20 Tons
System Data	Single Circuit TWE1204*A*	Dual Circuit TWE1204*B*	Dual Circuit TWE1504*B*	Dual Circuit TWE1804*B*	Dual Circuit TWE2404*B*
No. Refrigerant Circuits	1	2	2	2	2
Suction Line Connection (in.) OD	1-3/8	1-1/8	1-3/8	1-3/8	1-3/8
Liquid Line Connection (in.) OD	1/2	1/2	1/2	1/2	1/2
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.)	11.2	11.2	16.3	16.3	21.7
Rows/FPI (Fins per inch)	4/14	4/14	4/14	4/14	3/14
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.)	1/15 x 15	1/15 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
CFM (Nominal)	4,000	4,000	5,000	6,000	8,000
No. Motors	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
Motor RPM	1725	1725	1755	1,728/1,750	1,750/3,470
Motor Frame Size	56 Hz	56 Hz	145T	56 Hz	184T
Filters^(a)					
Type/Furnished	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
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"

Note: Oversized motor not available on 41A/B and 4KA/B models.

^(a) One inch, throw-away filters shall be standard on TWE060, TWE072, 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 TWE1804*B and TWE2404*B models.

Table 10. General data — 6-10 tons (TWE0724*B* - TWE1204*B*) SZVAV and 2-speed VFD air handler — 60 Hz

	6 Tons	7.5 Tons	10 Tons	10 Tons
	Dual Circuit TWE07243B*, 4B*, WB*	Dual Circuit TWE09043B*, 4B*, WB*	Single Circuit TWE12043A*, 4A*, WA*	Dual Circuit TWE12043B*, 4B*, WB*
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 11. General data — 12.5-20 tons (TWE1504*B* - TWE2404*B*) SZVAV and 2-speed VFD air handler — 60 Hz

	12.5 Tons	15 Tons	20 Tons
	Dual Circuit, TWE15043B*, 4B*, WB*	Dual Circuit, TWE18043B*, 4B*, WB*	Dual Circuit, TWE24043B*, 4B*, WB*
Indoor Fan			
Type	Centrifugal	Centrifugal	Centrifugal
No. Used/Diameter x Width (in.)	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
CFM (Nominal)	5,000	6,000	8,000
No. Motors	1	1	1
Motor HP - Standard/Oversized	2.0/5.0	3.0/5.0	5.0/7.5
Motor RPM	1755/3450	1725/3450	3450/3470
Motor Frame Size	56HZ	56HZ	56HZ/184T

Performance Data

Gross Cooling Capacities

Table 12. Gross cooling capacities (MBH) 6 tons TWA0724*A heat pump with 7.5 tons TWE0904*A 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	76.2	63.7	84.6	49.5	93.5	34.6	72.6	62.1	80.6	47.9	89.1	33.0	68.8	60.3	76.5	46.2	84.6	31.4
	80	76.3	75.2	84.4	61.2	93.6	46.5	72.7	72.7	80.7	59.7	89.3	44.9	68.9	68.9	76.6	58.0	84.7	43.3
	85	76.3	76.3	84.7	72.8	93.7	58.4	72.8	72.8	80.8	71.2	89.4	56.8	69.0	69.0	76.7	69.5	84.9	55.2
	90	76.4	76.4	84.8	84.3	93.7	70.2	72.8	72.8	80.9	80.9	89.4	68.5	69.0	69.0	76.8	76.8	84.9	66.9
2400	75	77.5	67.5	86.0	51.7	94.9	35.2	73.9	65.7	81.9	50.1	90.4	33.6	70.0	64.0	77.7	48.5	85.7	32.0
	80	77.6	77.6	86.0	64.8	95.0	48.4	74.0	74.0	82.0	63.1	90.5	46.9	70.1	70.1	77.8	61.3	85.9	45.2
	85	77.7	77.7	86.2	77.5	95.1	61.6	74.0	74.0	82.1	75.9	90.3	60.0	70.1	70.1	77.9	74.1	85.7	58.4
	90	77.7	77.7	86.2	86.2	95.2	74.6	74.0	74.0	82.2	82.2	90.7	72.9	70.2	70.2	78.0	78.0	86.1	71.2
2640	75	78.7	71.1	87.1	53.9	96.0	35.8	74.9	69.4	83.0	52.3	91.4	34.2	70.9	67.6	78.6	50.6	86.7	32.6
	80	78.8	78.8	87.2	68.1	96.2	50.3	75.0	75.0	83.1	66.4	91.6	48.7	71.0	71.0	78.8	64.7	86.8	47.1
	85	78.8	78.8	87.3	82.2	96.0	64.8	75.0	75.0	83.2	80.5	91.4	63.2	71.0	71.0	78.9	78.7	86.9	61.5
	90	78.8	78.8	87.4	87.4	96.4	78.9	75.1	75.1	83.3	83.3	91.8	77.3	71.1	71.1	78.9	78.9	87.1	75.6
2880	75	79.6	74.7	88.1	56.1	97.0	36.3	75.8	73.0	83.8	54.5	92.3	34.7	71.7	71.1	79.4	52.8	87.4	33.1
	80	79.7	79.7	88.2	71.4	97.1	52.2	75.8	75.8	84.0	69.7	92.5	50.6	71.8	71.8	79.6	68.0	87.6	49.0
	85	79.8	79.8	88.3	86.8	96.9	67.9	75.9	75.9	84.1	84.1	92.6	66.2	71.8	71.8	79.7	79.7	87.8	64.5
	90	79.8	79.8	88.4	88.4	97.4	83.2	75.9	75.9	84.1	84.1	92.7	81.6	71.8	71.8	79.7	79.7	87.9	79.9
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	64.8	58.4	72.2	44.5	79.9	29.7	60.6	56.5	67.5	42.7	74.7	28.0						
	80	64.9	64.9	72.3	56.2	80.0	41.7	60.7	60.7	67.6	54.3	74.9	39.9						
	85	65.0	65.0	72.4	67.7	79.8	53.5	60.7	60.7	67.8	65.8	74.7	51.7						
	90	65.0	65.0	72.5	72.5	80.2	65.2	60.7	60.7	67.8	67.8	75.2	63.3						
2400	75	65.9	62.1	73.2	46.7	80.9	30.3	61.5	60.1	68.4	44.9	75.6	28.5						
	80	66.0	66.0	73.3	59.5	81.1	43.6	61.6	61.6	68.6	57.6	75.8	41.8						
	85	66.0	66.0	73.5	72.3	80.8	56.7	61.6	61.6	68.7	68.7	76.0	54.8						
	90	66.0	66.0	73.5	73.5	81.3	69.5	61.6	61.6	68.8	68.8	76.1	67.7						
2640	75	66.7	65.7	74.1	48.9	81.7	30.9	62.2	62.2	69.2	47.0	76.3	29.1						
	80	66.8	66.8	74.2	62.8	81.9	45.5	62.3	62.3	69.4	60.9	76.6	43.7						
	85	66.8	66.8	74.3	74.3	82.0	59.7	62.4	62.4	69.5	69.5	76.7	58.2						
	90	66.9	66.9	74.4	74.4	82.1	73.8	62.4	62.4	69.5	69.5	76.9	72.0						
2880	75	67.4	67.4	74.8	51.0	82.4	31.4	62.8	62.8	69.8	49.2	76.9	29.7						
	80	67.5	67.5	74.9	66.1	82.6	47.3	62.9	62.9	70.0	64.2	77.2	45.5						
	85	67.5	67.5	75.0	75.0	82.7	63.1	63.0	63.0	70.1	70.1	77.4	60.9						
	90	67.6	67.6	75.1	75.1	82.9	78.1	63.0	63.0	70.2	70.2	77.5	76.2						

Notes:

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

Table 13. Gross cooling capacities (MBH) 6 tons TWA0724*D heat pump with 6 tons TWE0724*B 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	73.2	61.8	81.4	47.8	90.3	33.4	70.1	60.3	78.0	46.4	86.6	32.0	66.9	58.8	74.4	45.0	82.6	30.6
	80	73.5	73.5	81.1	59.1	90.0	44.8	71.0	71.0	77.7	57.8	86.1	43.4	68.3	68.3	74.1	56.3	82.2	42.1
	85	77.5	77.5	81.1	70.4	89.6	56.2	74.9	74.9	77.6	69.0	85.8	54.9	72.1	72.1	74.2	67.6	81.9	53.5
	90	81.6	81.6	81.7	81.7	89.3	67.6	78.8	78.8	79.0	79.0	85.6	66.3	75.9	75.9	76.1	76.1	81.6	64.8
2400	75	74.6	65.2	82.7	49.9	91.6	33.9	71.5	63.8	79.3	48.5	87.8	32.6	68.2	62.3	75.6	47.0	83.7	31.2
	80	76.0	76.0	82.5	62.4	91.4	46.6	73.4	73.4	79.0	61.0	87.4	45.2	70.6	70.6	75.3	59.6	83.4	43.8
	85	80.2	80.2	82.7	74.8	91.1	59.2	77.5	77.5	79.2	73.4	87.1	57.9	74.5	74.5	75.7	72.0	83.1	56.4
	90	84.5	84.5	84.6	84.6	90.8	71.8	81.6	81.6	81.7	81.7	86.9	70.4	78.5	78.5	78.6	78.6	82.8	68.9
2640	75	75.9	68.6	83.9	51.9	92.8	34.5	72.7	67.2	80.3	50.5	88.8	33.2	69.0	66.5	76.5	49.0	84.6	31.7
	80	78.2	78.2	83.7	65.6	92.5	48.4	75.5	75.5	80.1	64.2	88.4	47.0	72.5	72.5	76.3	62.6	84.3	45.6
	85	82.6	82.6	84.1	79.2	92.2	62.2	79.6	79.6	80.6	77.7	88.2	60.8	76.6	76.6	77.0	75.9	84.0	59.3
	90	87.0	87.0	87.1	87.1	92.1	75.8	83.9	83.9	84.1	84.1	88.1	74.4	80.6	80.6	80.7	80.7	84.0	72.9
2880	75	76.7	72.8	84.8	53.9	93.8	35.1	73.6	70.7	81.2	52.4	89.7	33.7	70.0	70.0	77.3	51.0	85.4	32.2
	80	80.2	80.2	84.7	68.6	93.5	50.1	77.3	77.3	81.1	67.2	89.3	48.7	74.2	74.2	77.2	65.6	85.1	47.2
	85	84.7	84.7	85.4	83.4	93.2	65.0	81.6	81.6	81.9	81.4	89.0	63.6	78.4	78.4	78.6	78.6	84.8	62.1
	90	89.1	89.1	89.3	89.3	93.2	79.7	86.0	86.0	86.1	86.1	89.2	78.3	82.6	82.6	82.7	82.7	84.9	76.8
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	63.6	57.2	70.7	43.5	78.4	29.1	59.8	56.0	66.6	41.9	73.9	27.6						
	80	65.5	65.5	70.4	54.8	78.0	40.6	62.4	62.4	66.4	53.3	73.6	39.0						
	85	69.1	69.1	70.6	66.0	77.7	52.0	65.9	65.9	66.7	64.5	73.3	50.5						
	90	72.9	72.9	73.0	73.0	77.5	63.3	69.5	69.5	69.6	69.6	73.1	61.7						
2400	75	64.8	60.7	71.7	45.5	79.4	29.7	61.2	58.6	67.6	43.9	74.8	28.1						
	80	67.5	67.5	71.5	58.0	79.1	42.4	64.3	64.3	67.4	56.4	74.5	40.8						
	85	71.4	71.4	72.0	70.4	78.7	55.0	68.0	68.0	68.3	67.3	74.2	53.4						
	90	75.2	75.2	75.4	75.4	78.7	67.4	71.7	71.7	71.8	71.8	74.2	65.8						
2640	75	65.9	63.6	72.6	47.5	80.2	30.2	62.2	62.2	68.3	45.9	75.6	28.7						
	80	69.4	69.4	72.4	61.0	79.9	44.1	66.0	66.0	68.3	59.4	75.2	42.5						
	85	73.2	73.2	73.5	73.0	79.6	57.8	69.8	69.8	69.9	69.9	75.0	56.2						
	90	77.3	77.3	77.4	77.4	79.7	71.4	73.6	73.6	73.7	73.7	75.2	69.8						
2880	75	66.9	66.9	73.3	49.5	80.9	30.7	63.5	63.5	69.0	47.8	76.1	29.2						
	80	70.9	70.9	73.3	64.0	80.6	45.7	67.4	67.4	69.1	62.4	75.9	44.2						
	85	75.0	75.0	75.1	75.1	80.4	60.6	71.3	71.3	71.4	71.4	75.6	58.9						
	90	79.1	79.1	79.2	79.2	80.7	75.3	75.2	75.2	75.3	75.3	76.1	72.9						

Notes:

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



Performance Data

Table 14. Gross cooling capacities (MBH) 7.5 tons TWA0904*A heat pump with 7.5 tons TWE0904*A 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	84.2	73.8	93.1	56.0	102.4	37.6	80.3	72.1	88.7	54.3	97.6	35.9	76.3	70.3	84.1	52.5	92.5	34.2
	80	85.2	85.2	92.8	70.3	102.1	52.1	81.8	81.8	88.4	68.6	97.2	50.4	78.3	78.3	83.8	66.8	92.2	48.7
	85	89.6	89.6	92.8	84.7	101.8	66.5	86.1	86.1	88.5	83.0	96.9	64.8	82.5	82.5	84.1	81.3	91.9	63.1
	90	94.0	94.0	94.1	94.1	101.5	80.9	90.4	90.4	90.5	90.5	96.6	79.2	86.6	86.6	86.7	86.7	91.7	77.5
3000	75	86.1	79.9	94.8	59.5	104.1	38.5	82.1	78.1	90.3	57.7	99.1	36.8	77.9	76.2	85.5	55.9	93.9	35.0
	80	88.4	88.4	94.5	75.8	103.8	55.0	84.9	84.9	90.0	74.1	98.7	53.3	81.1	81.1	85.3	72.3	93.5	51.6
	85	93.0	93.0	94.9	92.4	103.4	71.5	89.3	89.3	90.5	90.5	98.4	69.8	85.5	85.5	86.0	86.0	93.2	68.1
	90	97.7	97.7	97.8	97.8	103.2	88.0	93.8	93.8	93.9	93.9	98.3	86.3	89.8	89.8	89.6	89.6	93.2	84.6
3300	75	87.4	84.7	95.9	62.2	105.2	39.2	83.3	82.8	91.2	60.4	100.1	37.5	79.1	79.1	86.4	58.6	94.8	35.7
	80	90.6	90.6	95.6	80.2	104.8	57.4	86.9	86.9	91.0	78.5	99.7	55.7	83.1	83.1	86.3	76.7	94.4	53.9
	85	95.4	95.4	96.3	96.3	104.5	75.5	91.5	91.5	91.9	91.9	99.4	73.8	87.5	87.5	87.6	87.6	94.1	72.1
	90	100.2	100.2	100.3	100.3	104.5	93.7	96.1	96.1	96.0	96.0	99.4	92.0	91.9	91.9	92.0	92.0	94.3	90.3
3600	75	88.6	88.6	96.8	64.9	106.1	39.9	84.5	84.5	92.1	63.1	100.9	38.1	80.3	80.3	87.2	61.3	95.5	36.4
	80	92.6	92.6	96.6	84.6	105.7	59.7	88.7	88.7	92.0	82.8	100.5	58.0	84.7	84.7	87.1	81.1	95.1	56.3
	85	97.5	97.5	97.8	97.8	105.4	79.5	93.4	93.4	93.5	93.5	100.2	77.8	89.2	89.2	89.3	89.3	94.8	76.1
	90	102.3	102.3	102.4	102.4	105.5	99.4	98.1	98.1	98.3	98.3	100.5	97.8	93.8	93.8	93.9	93.9	95.3	95.3
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	72.0	68.5	79.4	50.6	87.3	32.4	67.8	66.5	74.4	48.7	81.7	30.5						
	80	74.6	74.6	79.1	65.0	86.9	46.9	70.7	70.7	74.1	63.1	81.3	45.0						
	85	78.6	78.6	79.5	79.4	86.6	61.3	74.5	74.5	74.8	74.8	81.0	59.4						
	90	82.6	82.6	82.7	82.7	86.5	75.7	78.2	78.2	78.3	78.3	80.9	73.8						
3000	75	73.6	73.6	80.6	54.0	88.5	33.2	69.1	69.1	75.4	52.1	82.7	31.3						
	80	77.2	77.2	80.4	70.5	88.1	49.8	73.0	73.0	75.3	68.5	82.3	47.9						
	85	81.4	81.4	81.5	81.5	87.8	66.3	76.9	76.9	77.0	77.0	82.0	64.4						
	90	85.5	85.5	85.6	85.6	87.9	82.8	80.8	80.8	80.9	80.9	82.2	81.0						
3300	75	74.8	74.8	81.4	56.7	89.3	33.9	70.6	70.6	76.1	54.8	83.4	32.0						
	80	79.0	79.0	81.3	74.8	88.9	52.1	74.6	74.6	76.1	72.9	83.0	50.2						
	85	83.2	83.2	83.3	83.3	88.6	70.3	78.6	78.6	78.7	78.7	82.7	68.4						
	90	87.4	87.4	87.5	87.5	88.9	88.6	82.5	82.5	82.6	82.6	83.2	83.2						
3600	75	76.1	76.1	82.1	59.4	89.9	34.6	71.9	71.9	76.7	57.4	83.9	32.6						
	80	80.5	80.5	82.1	79.2	89.5	54.5	76.0	76.0	76.9	76.9	83.5	52.5						
	85	84.8	84.8	84.9	84.9	89.2	74.3	80.0	80.0	80.1	80.1	83.3	72.4						
	90	89.1	89.1	89.2	89.2	89.9	89.9	84.0	84.0	84.1	84.1	84.2	84.2						

Notes:

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

Table 15. Gross cooling capacities (MBH) 7.5 tons TWA0904*D heat pump with 7.5 tons TWE0904*B 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	89.2	75.5	99.2	58.3	109.5	40.4	85.8	73.9	95.2	56.7	105.1	38.8	82.2	72.3	91.1	55.0	100.4	37.2
	80	89.6	89.6	98.5	72.1	108.9	54.4	86.8	86.8	94.6	70.5	104.5	52.8	83.7	83.7	90.3	68.8	99.7	51.1
	85	94.4	94.4	98.2	86.0	108.2	68.3	91.3	91.3	94.4	84.4	103.6	66.6	88.0	88.0	90.3	82.7	99.0	65.0
	90	99.0	99.0	99.2	99.2	107.6	82.2	95.7	95.7	95.9	95.9	103.1	80.6	92.3	92.3	92.5	92.5	98.5	78.9
3000	75	90.9	79.8	100.7	60.8	111.1	41.1	87.4	78.2	96.6	59.1	106.6	39.5	83.6	76.5	92.4	57.5	101.7	37.8
	80	92.6	92.6	100.0	76.0	110.4	56.5	89.6	89.6	96.0	74.4	105.6	54.8	86.3	86.3	91.7	72.7	101.0	53.2
	85	97.5	97.5	100.0	91.3	109.8	71.8	94.2	94.2	96.1	89.7	105.0	70.2	90.7	90.7	91.9	88.1	100.3	68.5
	90	102.3	102.3	102.5	102.5	109.2	87.2	98.8	98.8	99.0	99.0	104.6	85.5	95.0	95.0	95.3	95.3	99.6	83.8
3300	75	92.4	83.9	102.0	63.2	112.4	41.8	88.3	83.5	97.8	61.5	107.7	40.2	84.7	81.0	93.4	59.8	102.7	38.5
	80	95.2	95.2	101.4	79.8	111.7	58.6	92.0	92.0	97.2	78.2	106.7	56.9	88.6	88.6	92.9	76.4	102.0	55.2
	85	100.2	100.2	101.7	96.6	111.0	75.3	96.6	96.6	97.5	94.9	106.2	73.6	93.1	93.1	93.5	92.4	101.3	72.0
	90	105.1	105.1	105.3	105.3	110.6	92.0	101.5	101.5	101.6	101.6	105.9	90.4	97.6	97.6	97.8	97.8	100.8	88.6
3600	75	93.9	88.1	102.9	65.4	113.4	42.4	89.9	86.5	98.8	63.8	108.7	40.8	85.8	85.8	94.3	62.1	103.6	39.1
	80	97.4	97.4	102.5	83.5	112.8	60.6	94.1	94.1	98.3	81.8	107.7	58.8	90.5	90.5	93.9	80.1	102.9	57.2
	85	102.5	102.5	103.2	101.7	112.1	78.7	98.8	98.8	99.1	98.8	107.1	77.0	95.1	95.1	95.2	95.2	102.2	75.4
	90	107.6	107.6	107.8	107.8	111.8	96.8	103.8	103.8	103.9	103.9	107.0	95.1	99.5	99.5	99.7	99.7	101.3	94.7
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
2700	75	78.4	70.6	86.8	53.3	95.5	35.5	74.4	68.8	82.2	51.5	90.3	33.6	78.4	70.6	86.8	53.3	95.5	35.5
	80	80.4	80.4	86.1	67.1	94.8	49.4	76.9	76.9	81.6	65.3	89.6	47.6	80.4	80.4	86.1	67.1	94.8	49.4
	85	84.6	84.6	86.0	81.0	94.1	63.3	80.9	80.9	81.7	79.2	88.9	61.5	84.6	84.6	86.0	81.0	94.1	63.3
	90	88.7	88.7	88.8	88.8	93.6	77.2	84.7	84.7	84.8	84.8	88.5	75.4	88.7	88.7	88.8	88.8	93.6	77.2
3000	75	79.5	75.3	87.9	55.7	96.6	36.1	75.6	72.6	83.2	53.9	91.3	34.3	79.5	75.3	87.9	55.7	96.6	36.1
	80	82.9	82.9	87.3	71.0	95.9	51.5	79.1	79.1	82.7	69.2	90.6	49.7	82.9	82.9	87.3	71.0	95.9	51.5
	85	87.0	87.0	87.6	85.8	95.2	66.8	83.2	83.2	83.4	82.4	89.9	65.0	87.0	87.0	87.6	85.8	95.2	66.8
	90	91.3	91.3	91.4	91.4	94.9	82.1	87.1	87.1	87.2	87.2	89.0	81.7	91.3	91.3	91.4	91.4	94.9	82.1
3300	75	80.5	80.5	88.9	58.1	97.6	36.7	76.9	76.9	84.1	56.2	92.1	34.9	80.5	80.5	88.9	58.1	97.6	36.7
	80	84.9	84.9	88.4	74.7	96.8	53.5	81.0	81.0	83.6	72.9	91.5	51.7	84.9	84.9	88.4	74.7	96.8	53.5
	85	89.2	89.2	89.4	89.1	96.1	70.2	85.0	85.0	85.1	85.1	90.7	68.4	89.2	89.2	89.4	89.1	96.1	70.2
	90	93.5	93.5	93.7	93.7	95.4	88.3	89.1	89.1	89.2	89.2	90.4	85.0	93.5	93.5	93.7	93.7	95.4	88.3
3600	75	82.2	82.2	89.7	60.3	98.3	37.3	78.5	78.5	84.8	58.5	92.8	35.5	82.2	82.2	89.7	60.3	98.3	37.3
	80	86.6	86.6	89.3	78.3	97.6	55.5	82.7	82.7	84.1	77.8	92.1	53.6	86.6	86.6	89.3	78.3	97.6	55.5
	85	91.1	91.1	91.2	91.2	96.9	73.6	86.8	86.8	86.8	86.8	91.4	71.7	91.1	91.1	91.2	91.2	96.9	73.6
	90	95.5	95.5	95.6	95.6	96.8	91.6	90.8	90.8	90.9	90.9	91.0	91.0	95.5	95.5	95.6	95.6	96.8	91.6

Notes:

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



Performance Data

Table 16. Gross cooling capacities (MBH) 10 tons TWA1204*A heat pump with 10 tons TWE1204*A 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	118.2	100.8	131.0	77.5	144.6	53.4	113.3	98.6	125.4	75.3	138.3	51.2	108.1	96.2	119.5	72.9	131.7	48.8
	80	119.5	119.5	130.6	96.4	144.2	72.5	115.3	115.3	125.1	94.1	138.0	70.2	110.9	110.9	119.2	91.8	131.3	67.9
	85	125.9	125.9	130.9	115.2	143.9	91.4	121.6	121.6	125.5	113.0	137.6	89.2	116.9	116.9	119.7	110.6	131.0	86.9
	90	132.5	132.5	132.8	132.8	143.6	110.4	127.9	127.9	128.1	128.1	137.4	108.1	123.0	123.0	123.2	123.2	130.8	105.8
4000	75	120.4	106.6	133.0	80.9	146.6	54.3	115.4	104.3	127.3	78.6	140.1	52.1	110.1	101.9	121.2	76.2	133.3	49.7
	80	123.3	123.3	132.7	101.7	146.3	75.4	118.9	118.9	127.0	99.4	139.8	73.1	114.2	114.2	121.0	97.0	132.9	70.7
	85	130.1	130.1	133.3	122.5	145.9	96.3	125.5	125.5	127.8	120.2	139.4	94.0	120.5	120.5	121.9	117.9	132.6	91.7
	90	136.8	136.8	137.1	137.1	145.8	117.1	132.0	132.0	132.2	132.2	139.4	114.9	126.8	126.8	127.0	127.0	132.6	112.4
4400	75	122.4	112.2	134.7	84.2	148.3	55.2	117.2	109.9	128.8	81.9	141.6	53.0	111.8	107.5	122.6	79.5	134.7	50.6
	80	126.7	126.7	134.5	106.9	147.9	78.2	122.1	122.1	128.7	104.5	141.2	75.9	117.2	117.2	122.5	102.1	134.2	73.5
	85	133.7	133.7	135.5	129.7	147.6	101.0	128.8	128.8	129.9	127.4	140.9	98.7	123.6	123.6	124.0	124.0	133.9	96.4
	90	140.6	140.6	140.8	140.8	147.7	123.7	135.5	135.5	135.7	135.7	141.1	121.4	130.1	130.1	130.2	130.2	134.2	119.0
4800	75	124.1	117.7	136.1	87.3	149.7	56.1	118.0	118.0	130.1	85.0	142.9	53.8	113.1	113.1	123.7	82.6	135.7	51.4
	80	129.6	129.6	136.1	111.9	149.3	80.9	124.9	124.9	130.1	109.5	142.5	78.6	119.7	119.7	123.8	107.0	135.4	76.2
	85	136.8	136.8	137.6	136.7	148.9	105.7	131.7	131.7	132.0	132.0	142.2	103.4	126.3	126.3	126.5	126.5	135.0	100.9
	90	144.0	144.0	144.1	144.1	149.3	130.2	138.6	138.6	138.8	138.8	142.6	127.9	132.8	132.8	133.0	133.0	135.7	125.4
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	93.7	113.2	70.4	124.6	46.4	96.6	90.9	106.3	67.7	116.8	43.7						
	80	106.0	106.0	112.9	89.3	124.2	65.4	100.7	100.7	106.1	86.5	116.4	62.7						
	85	111.9	111.9	113.6	108.1	123.9	84.4	106.2	106.2	106.9	105.4	116.1	81.7						
	90	117.7	117.7	117.9	117.9	123.9	103.3	111.7	111.7	111.9	111.9	116.1	100.5						
4000	75	104.4	99.3	114.7	73.7	126.0	47.2	97.8	97.8	107.6	71.0	118.0	44.6						
	80	109.1	109.1	114.5	94.4	125.6	68.2	103.5	103.5	107.5	91.7	117.6	65.6						
	85	115.2	115.2	115.7	115.4	125.3	89.2	109.2	109.2	109.3	109.3	117.3	86.5						
	90	121.1	121.1	121.3	121.3	125.5	109.9	114.8	114.8	114.9	114.9	117.6	107.2						
4400	75	105.7	105.7	115.9	76.9	127.2	48.1	100.1	100.1	108.7	74.2	119.0	45.4						
	80	111.8	111.8	115.9	99.5	126.8	71.0	105.9	105.9	108.8	96.7	118.6	68.3						
	85	118.0	118.0	118.1	118.1	126.5	93.9	111.7	111.7	111.8	111.8	118.4	91.2						
	90	124.1	124.1	124.3	124.3	127.0	116.5	117.4	117.4	117.5	117.5	119.1	113.7						
4800	75	107.8	107.8	116.9	80.1	128.2	48.9	102.0	102.0	109.6	77.3	119.8	46.2						
	80	114.1	114.1	117.1	104.4	127.8	73.7	108.0	108.0	109.9	101.6	119.5	71.0						
	85	120.4	120.4	120.6	120.6	127.5	98.3	113.9	113.9	114.0	114.0	119.3	95.5						
	90	126.6	126.6	126.8	126.8	128.4	122.9	119.7	119.7	119.9	119.9	120.5	120.2						

Notes:

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

Table 17. Gross cooling capacities (MBH) 10 tons TWA1204*D heat pump with 10 tons TWE1204*B 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	116.4	99.3	128.4	76.1	141.1	52.1	111.0	96.8	122.2	73.6	134.2	49.6	105.2	94.1	115.8	71.0	127.0	47.1
	80	117.7	117.7	128.2	94.7	140.9	70.9	113.0	113.0	122.0	92.2	133.9	68.4	108.1	108.1	115.6	89.6	126.8	65.9
	85	123.9	123.9	128.5	113.3	140.6	89.6	119.0	119.0	122.4	110.8	133.7	87.1	113.9	113.9	116.2	108.3	126.5	84.6
	90	130.1	130.1	130.3	130.3	140.5	108.3	125.0	125.0	125.2	125.2	133.6	105.8	119.6	119.6	119.8	119.8	126.6	103.3
4000	75	119.0	106.5	130.8	80.3	143.4	53.2	113.4	104.0	124.3	77.7	136.2	50.7	107.1	102.1	117.7	75.1	128.8	48.2
	80	122.3	122.3	130.6	101.4	143.2	74.5	117.3	117.3	124.2	98.8	136.0	72.0	112.0	112.0	117.6	96.2	128.6	69.5
	85	128.8	128.8	131.4	122.5	142.9	95.7	123.6	123.6	125.2	120.0	135.8	93.2	118.1	118.1	118.8	117.3	128.4	90.7
	90	135.3	135.3	135.5	135.5	143.0	116.8	129.8	129.8	130.0	130.0	136.0	114.3	124.1	124.1	124.2	124.2	128.7	111.8
4400	75	120.8	112.2	132.3	83.5	144.9	54.1	114.8	110.1	125.7	81.0	137.6	51.6	108.5	108.5	118.9	78.4	130.0	49.0
	80	125.4	125.4	132.2	106.5	144.6	77.3	120.2	120.2	125.7	104.0	137.3	74.8	114.7	114.7	119.0	101.3	129.7	72.3
	85	132.2	132.2	133.5	129.7	144.4	100.4	126.7	126.7	127.2	126.4	137.1	98.0	120.9	120.9	121.1	121.1	129.5	95.4
	90	138.9	138.9	139.0	139.0	144.7	123.5	133.1	133.1	133.2	133.2	137.5	121.0	127.0	127.0	127.2	127.2	130.1	118.4
4800	75	122.2	118.0	133.6	86.7	146.2	54.9	116.2	116.2	126.9	84.1	138.7	52.4	110.7	110.7	119.9	81.5	131.0	49.8
	80	128.2	128.2	133.7	111.6	145.9	80.0	122.7	122.7	127.0	109.0	138.4	77.5	117.0	117.0	120.2	106.3	130.7	75.0
	85	135.1	135.1	135.5	135.4	145.6	105.1	129.3	129.3	129.5	129.5	138.2	102.6	123.3	123.3	123.4	123.4	130.6	100.0
	90	141.9	141.9	142.1	142.1	146.3	130.0	135.9	135.9	136.0	136.0	138.1	129.7	129.6	129.6	129.7	129.7	131.1	125.3
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
3600	75	99.3	91.4	109.0	68.3	119.5	44.5	92.7	88.7	101.8	65.5	111.4	41.8						
	80	102.8	102.8	108.9	87.0	119.3	63.3	97.1	97.1	101.7	84.1	111.2	60.6						
	85	108.4	108.4	109.6	105.6	119.0	82.0	102.4	102.4	102.9	101.1	111.0	79.3						
	90	113.9	113.9	114.1	114.1	119.2	100.7	107.6	107.6	107.7	107.7	111.2	97.9						
4000	75	101.3	98.2	110.7	72.5	121.1	45.6	94.9	94.9	103.2	69.6	112.8	42.8						
	80	106.4	106.4	110.7	93.5	120.9	66.9	100.4	100.4	103.4	90.6	112.6	64.1						
	85	112.2	112.2	112.5	112.3	120.6	88.1	105.8	105.8	105.9	105.9	112.4	85.3						
	90	117.9	117.9	118.1	118.1	121.1	109.1	111.2	111.2	111.3	111.3	112.7	106.7						
4400	75	103.0	103.0	111.8	75.7	122.1	46.4	96.9	96.9	104.1	72.8	113.6	43.6						
	80	108.9	108.9	112.0	98.6	121.9	69.6	102.5	102.5	104.5	95.7	113.4	66.8						
	85	114.7	114.7	114.9	114.9	121.7	92.7	108.1	108.1	108.2	108.2	113.3	89.9						
	90	120.6	120.6	120.7	120.7	122.1	116.2	113.5	113.5	113.6	113.6	113.7	113.7						
4800	75	104.9	104.9	112.6	78.8	123.0	47.2	98.7	98.7	104.9	75.9	114.4	44.4						
	80	111.0	111.0	113.1	103.6	122.7	72.3	104.4	104.4	105.3	100.8	114.1	69.6						
	85	117.0	117.0	117.1	117.1	122.6	97.3	110.0	110.0	110.1	110.1	114.2	94.5						
	90	122.9	122.9	123.0	123.0	123.1	123.1	115.5	115.5	115.6	115.6	115.7	115.7						

Notes:

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



Performance Data

Table 18. Gross cooling capacities (MBH) 15 tons TWA1804*D heat pump with 15 tons TWE1804*B standard/SZVAV 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	179.7	154.4	198.9	118.0	220.0	80.7	171.7	150.8	190.1	114.5	210.4	77.3	163.3	147.0	180.8	110.8	200.1	73.7
	80	181.4	181.4	198.8	147.5	219.7	110.5	173.9	173.9	190.0	144.0	210.1	107.0	166.2	166.2	180.7	140.3	199.8	103.5
	85	189.2	189.2	199.0	177.0	219.6	140.1	182.4	182.4	190.4	173.5	210.0	136.7	175.2	175.2	181.3	169.9	199.8	133.1
	90	199.0	199.0	200.9	199.0	219.5	169.6	192.0	192.0	193.1	193.1	209.9	166.2	184.5	184.5	185.0	185.0	199.7	162.7
6000	75	182.9	164.0	202.1	123.6	223.4	82.3	174.8	160.4	193.1	120.1	213.4	78.8	166.2	156.7	183.5	116.3	202.8	75.2
	80	185.8	185.8	202.0	156.4	223.1	115.3	178.5	178.5	193.0	152.8	213.1	111.9	170.9	170.9	183.4	149.1	202.6	108.3
	85	195.3	195.3	202.6	189.3	223.0	148.3	188.2	188.2	193.9	185.8	213.1	144.8	180.5	180.5	184.6	182.2	202.6	141.2
	90	205.6	205.6	206.3	206.3	222.7	181.0	198.2	198.2	198.5	198.5	213.0	177.7	190.3	190.3	190.6	190.6	202.7	174.1
6600	75	185.8	173.6	204.8	129.1	226.1	83.7	177.5	170.0	195.5	125.5	215.9	80.3	168.7	165.3	185.7	121.8	205.1	76.6
	80	190.2	190.2	204.8	165.1	225.9	120.1	183.0	183.0	195.5	161.6	215.7	116.6	175.3	175.3	185.7	157.8	204.9	113.0
	85	200.6	200.6	205.9	201.5	225.8	156.4	193.2	193.2	197.0	195.6	215.6	152.9	185.2	185.2	187.6	187.6	204.9	149.3
	90	211.3	211.3	211.5	211.5	225.8	192.5	203.6	203.6	203.9	203.9	215.8	189.1	195.4	195.4	195.6	195.6	205.3	185.6
7200	75	188.3	183.2	207.1	134.6	228.5	85.2	179.9	178.1	197.7	131.0	218.1	81.7	171.1	171.1	187.6	127.2	207.0	78.0
	80	194.5	194.5	207.1	173.9	228.3	124.9	187.1	187.1	197.7	170.3	217.9	121.4	179.1	179.1	187.8	166.6	206.9	117.8
	85	205.3	205.3	208.9	208.9	228.2	164.4	197.6	197.6	199.9	199.9	217.8	161.0	189.4	189.4	190.6	190.6	206.9	157.3
	90	216.4	216.4	216.6	216.6	228.5	204.0	208.4	208.4	208.6	208.6	218.3	200.6	199.9	199.9	200.1	200.1	205.1	194.1
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
5400	75	154.5	143.2	170.9	107.0	189.2	70.0	145.2	139.1	160.5	102.9	177.5	66.0						
	80	158.4	158.4	170.9	136.4	189.1	99.7	150.4	150.4	160.4	132.4	177.4	95.8						
	85	167.4	167.4	171.8	166.2	189.0	129.4	159.1	159.1	161.7	160.0	177.4	125.4						
	90	176.6	176.6	176.8	176.8	189.0	159.0	167.9	167.9	168.1	168.1	177.6	155.1						
6000	75	157.2	152.8	173.4	112.4	191.7	71.4	147.8	146.4	162.6	108.4	179.7	67.4						
	80	163.1	163.1	173.4	145.2	191.5	104.5	154.6	154.6	162.7	141.2	179.6	100.5						
	85	172.4	172.4	174.9	174.6	191.5	137.5	163.6	163.6	164.8	164.8	179.6	133.5						
	90	182.0	182.0	182.2	182.2	191.8	170.4	172.8	172.8	173.1	173.1	177.8	165.8						
6600	75	159.6	159.1	175.4	117.9	193.7	72.8	150.1	150.1	164.4	113.8	181.4	68.8						
	80	167.1	167.1	175.5	154.0	193.6	109.3	158.3	158.3	164.7	149.9	181.4	105.2						
	85	176.8	176.8	178.0	178.0	193.6	145.5	167.6	167.6	168.1	168.1	181.5	141.5						
	90	186.7	186.7	186.9	186.9	191.8	180.2	177.2	177.2	177.4	177.4	181.0	173.5						
7200	75	161.9	161.9	177.1	123.3	195.4	74.2	152.4	152.4	165.9	119.1	182.9	70.2						
	80	170.6	170.6	177.4	162.7	195.4	114.0	161.5	161.5	166.4	158.7	183.0	109.9						
	85	180.6	180.6	181.0	181.0	195.4	153.6	171.1	171.1	171.3	171.3	183.0	149.5						
	90	190.8	190.8	191.0	191.0	194.8	187.9	180.9	180.9	181.1	181.1	183.7	181.2						

Notes:

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

Table 19. Gross cooling capacities (MBH) 20 tons TWA2404*D heat pump with 20 tons TWE2404*B standard/SZVAV 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
7200	75	236.1	197.5	262.2	153.2	290.4	107.2	227.8	193.6	253.1	149.5	280.2	103.5	218.5	189.3	242.8	145.3	268.9	99.5
	80	236.3	233.1	262.3	189.8	290.3	143.9	228.0	228.0	253.2	186.0	280.1	140.2	218.7	218.7	242.9	181.7	268.8	136.1
	85	236.4	236.4	262.5	225.5	290.3	180.5	228.1	228.1	253.4	221.7	280.2	176.8	218.8	218.8	243.1	217.4	268.8	172.7
	90	236.5	236.5	262.7	261.2	290.4	216.9	228.2	228.2	253.6	253.6	280.2	213.2	218.9	218.9	243.3	243.3	268.9	209.0
8000	75	240.0	207.9	266.3	159.4	294.6	109.0	231.5	204.0	256.9	155.7	284.1	105.3	221.9	199.6	246.3	151.5	272.4	101.2
	80	240.2	240.2	266.4	199.3	294.4	149.2	231.7	231.7	257.0	195.5	284.0	145.5	222.1	222.1	246.4	191.2	272.3	141.4
	85	240.3	240.3	266.6	238.5	294.5	189.4	231.8	231.8	257.2	234.7	284.0	185.7	222.2	222.2	246.7	230.4	272.4	181.6
	90	240.4	240.4	266.8	266.8	294.6	229.2	231.9	231.9	257.4	257.4	284.1	225.4	222.3	222.3	246.8	246.8	272.5	221.2
8800	75	243.3	217.9	269.7	165.4	298.1	110.6	234.6	214.0	260.1	161.6	287.4	106.9	224.8	209.6	249.3	157.4	275.4	102.8
	80	243.5	243.5	269.8	208.6	297.9	154.4	234.8	234.8	260.2	204.7	287.2	150.7	224.9	224.9	249.4	200.4	275.2	146.5
	85	243.6	243.6	270.0	251.2	298.0	198.0	234.9	234.9	260.4	247.3	287.3	194.3	225.0	225.0	249.6	243.0	275.3	190.2
	90	243.7	243.7	270.2	270.2	298.1	241.1	234.9	234.9	260.6	260.6	287.4	237.3	225.1	225.1	249.7	249.7	275.5	233.0
9600	75	246.2	227.6	272.7	171.2	301.1	112.2	237.2	223.6	262.8	167.3	290.1	108.5	227.2	219.2	251.8	163.1	277.9	104.3
	80	246.3	246.3	272.8	217.6	300.9	159.4	237.4	237.4	263.0	213.6	289.9	155.6	227.4	227.4	251.9	209.3	277.7	151.5
	85	246.4	246.4	273.0	263.5	301.0	206.4	237.5	237.5	263.1	259.6	290.0	202.7	227.4	227.4	252.1	252.1	277.9	198.5
	90	246.5	246.5	273.1	273.1	301.1	252.6	237.5	237.5	263.3	263.3	290.2	248.8	227.5	227.5	252.2	252.2	278.0	244.5
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
7200	75	208.6	184.8	231.7	140.9	256.4	95.0	197.8	179.8	219.4	136.0	242.4	90.2						
	80	208.8	208.8	231.8	177.2	256.3	131.7	197.9	197.9	219.6	172.2	242.3	126.8						
	85	208.9	208.9	232.0	212.9	256.4	168.3	198.0	198.0	219.8	207.9	242.4	163.5						
	90	209.0	209.0	232.2	232.2	256.5	204.5	198.1	198.1	219.9	219.9	242.5	199.5						
8000	75	211.7	195.0	234.9	146.9	259.6	96.7	200.5	190.0	222.2	142.0	245.2	91.8						
	80	211.9	211.9	235.0	186.6	259.5	137.0	200.7	200.7	222.4	181.6	245.1	132.0						
	85	212.0	212.0	235.2	225.8	259.6	177.2	200.8	200.8	222.6	220.7	245.2	172.2						
	90	212.0	212.0	235.4	235.4	259.7	216.7	200.8	200.8	222.7	222.7	245.4	211.6						
8800	75	214.3	204.9	237.5	152.8	262.3	98.3	202.8	199.8	224.6	147.8	247.6	93.3						
	80	214.4	214.4	237.7	195.7	262.1	142.0	202.9	202.9	224.7	190.6	247.4	137.1						
	85	214.5	214.5	237.9	237.9	262.2	185.7	203.0	203.0	224.9	224.9	247.6	180.8						
	90	214.6	214.6	238.0	238.0	262.4	228.4	203.1	203.1	225.0	225.0	247.7	223.3						
9600	75	216.5	214.5	239.8	158.5	264.5	99.8	204.8	204.8	226.6	153.5	249.5	94.8						
	80	216.6	216.6	240.0	204.6	264.3	147.0	204.9	204.9	226.7	199.4	249.4	142.0						
	85	216.7	216.7	240.1	240.1	264.5	194.0	205.0	205.0	226.9	226.9	249.5	189.1						
	90	216.7	216.7	240.2	240.2	264.6	239.9	205.0	205.0	227.0	227.0	249.7	234.8						

Notes:

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

Performance Data

Table 20. Gross cooling capacities (MBH) 6 tons TWA0724*A condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	255.0	261.3	267.9	275.1	282.6	290.7
	Capacity (Btuh/1000)	68.4	75.3	82.7	90.5	98.9	107.8
	Unit Power (kW)	4.3	4.3	4.4	4.4	4.5	4.5
75	Head Press (psig)	292.9	299.5	306.6	314.0	321.9	330.3
	Capacity (Btuh/1000)	64.8	71.3	78.3	85.8	93.8	102.2
	Unit Power (kW)	4.7	4.7	4.8	4.8	4.9	5.0
85	Head Press (psig)	334.3	341.3	348.7	356.4	364.7	373.4
	Capacity (Btuh/1000)	61.0	67.2	73.9	81.0	88.6	96.6
	Unit Power (kW)	5.2	5.2	5.3	5.3	5.4	5.5
95	Head Press (psig)	379.4	386.6	394.3	402.4	410.9	419.8
	Capacity (Btuh/1000)	57.0	62.9	69.2	76.0	83.2	90.8
	Unit Power (kW)	5.7	5.7	5.8	5.8	5.9	6.0
105	Head Press (psig)	428.1	435.7	443.6	452.0	460.7	469.9
	Capacity (Btuh/1000)	52.7	58.4	64.4	70.8	77.6	84.8
	Unit Power (kW)	6.3	6.3	6.4	6.4	6.5	6.6
115	Head Press (psig)	480.8	488.6	496.7	505.1	513.9	523.1
	Capacity (Btuh/1000)	48.2	53.6	59.4	65.5	72.0	78.8
	Unit Power (kW)	6.9	7.0	7.0	7.1	7.1	7.2
125	Head Press (psig)	537.3	545.0	553.0	561.3	569.8	578.6
	Capacity (Btuh/1000)	43.6	48.7	54.2	59.9	66.0	72.5
	Unit Power (kW)	7.7	7.7	7.7	7.8	7.8	7.8

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

Figure 8. TWA0724*A capacity curves

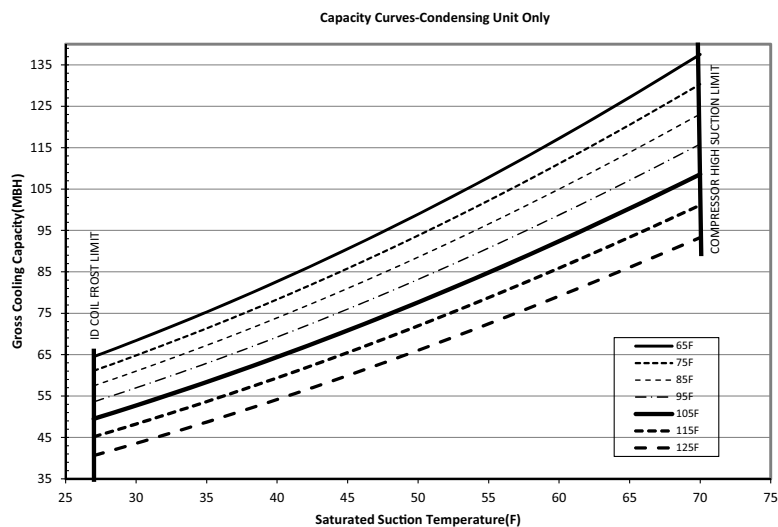
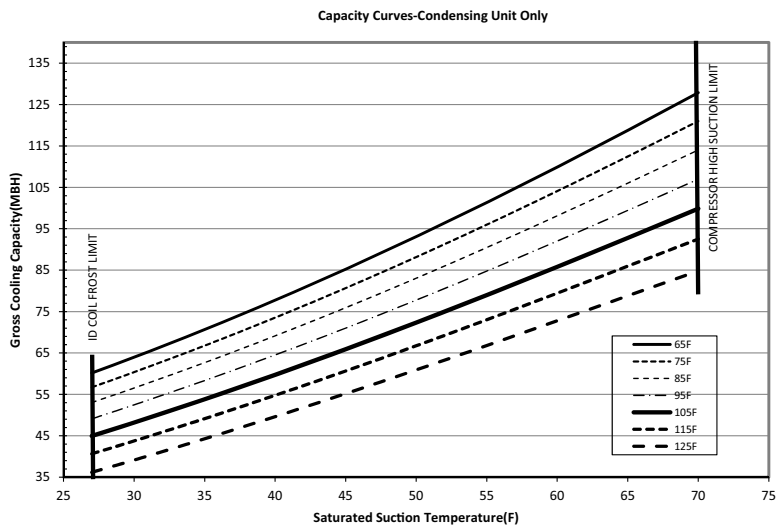


Table 21. Gross cooling capacities (MBH) 6 tons TWA0724*D condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	247.2	252.8	258.7	264.9	271.4	278.2
	Capacity (Btuh/1000)	64.0	70.7	77.7	85.2	93.1	101.3
	Unit Power (kW)	3.9	3.9	4.0	4.0	4.1	4.1
75	Head Press (psig)	284.1	290.1	296.3	302.8	309.6	316.7
	Capacity (Btuh/1000)	60.4	66.8	73.5	80.7	88.2	96.0
	Unit Power (kW)	4.4	4.4	4.4	4.5	4.5	4.6
85	Head Press (psig)	324.6	330.9	337.4	344.3	351.3	358.7
	Capacity (Btuh/1000)	56.5	62.7	69.1	75.9	83.1	90.5
	Unit Power (kW)	4.9	4.9	5.0	5.0	5.1	5.1
95	Head Press (psig)	368.7	375.3	382.2	389.3	396.6	404.2
	Capacity (Btuh/1000)	52.5	58.3	64.5	71.0	77.8	84.8
	Unit Power (kW)	5.4	5.5	5.5	5.6	5.7	5.7
105	Head Press (psig)	416.6	423.5	430.7	438.1	445.7	453.4
	Capacity (Btuh/1000)	48.2	53.8	59.7	65.9	72.3	79.0
	Unit Power (kW)	6.1	6.1	6.2	6.2	6.3	6.4
115	Head Press (psig)	468.7	475.9	483.2	490.8	498.5	506.3
	Capacity (Btuh/1000)	43.8	49.1	54.8	60.6	66.7	73.0
	Unit Power (kW)	6.8	6.9	6.9	7.0	7.0	7.1
125	Head Press (psig)	524.9	532.2	539.6	547.1	554.7	562.4
	Capacity (Btuh/1000)	39.1	44.3	49.6	55.2	60.9	66.8
	Unit Power (kW)	7.6	7.7	7.7	7.8	7.8	7.9

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

Figure 9. TWA0724*D capacity curves




Performance Data

Table 22. Gross cooling capacities (MBH) 7.5 tons TWA0904*A condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	264.5	271.6	279.1	287.0	295.3	303.9
	Capacity (Btuh/1000)	75.9	83.2	90.8	98.7	107.0	115.6
	Unit Power (kW)	4.9	5.0	5.1	5.2	5.3	5.5
75	Head Press (psig)	303.3	310.8	318.7	327.0	335.7	344.9
	Capacity (Btuh/1000)	72.2	79.1	86.4	94.0	101.8	110.0
	Unit Power (kW)	5.3	5.4	5.5	5.7	5.8	5.9
85	Head Press (psig)	345.2	353.2	361.5	370.2	379.4	388.9
	Capacity (Btuh/1000)	68.0	74.6	81.5	88.6	96.1	103.8
	Unit Power (kW)	5.8	5.9	6.0	6.2	6.3	6.5
95	Head Press (psig)	390.7	399.0	407.7	416.8	426.3	436.3
	Capacity (Btuh/1000)	63.4	69.6	76.2	83.0	90.1	97.4
	Unit Power (kW)	6.4	6.5	6.6	6.7	6.9	7.0
105	Head Press (psig)	440.0	448.7	457.8	467.2	477.1	487.3
	Capacity (Btuh/1000)	58.7	64.6	70.8	77.2	83.9	90.8
	Unit Power (kW)	7.0	7.1	7.3	7.4	7.6	7.7
115	Head Press (psig)	493.6	502.4	511.7	521.4	531.4	541.8
	Capacity (Btuh/1000)	54.0	59.5	65.3	71.4	77.6	84.1
	Unit Power (kW)	7.7	7.8	8.0	8.1	8.3	8.5
125	Head Press (psig)	551.3	560.1	569.3	578.9	588.8	599.0
	Capacity (Btuh/1000)	49.3	54.4	59.8	65.3	71.1	77.0
	Unit Power (kW)	8.5	8.6	8.8	8.9	9.1	9.2

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

Figure 10. TWA0904*A capacity curves

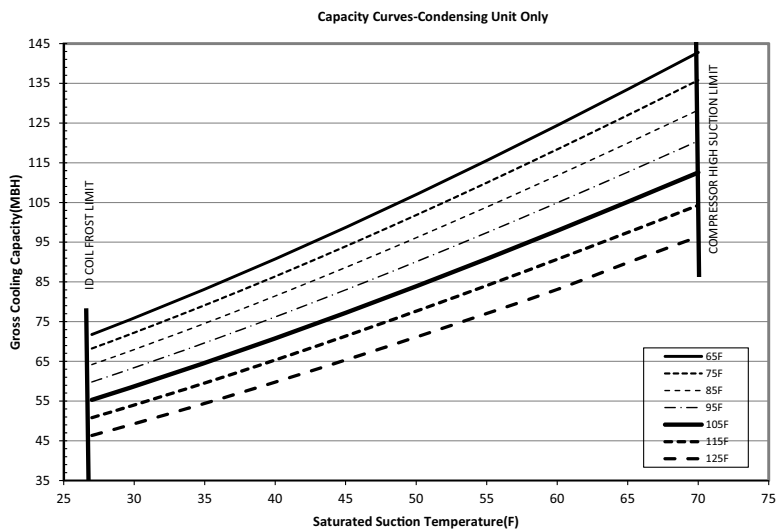
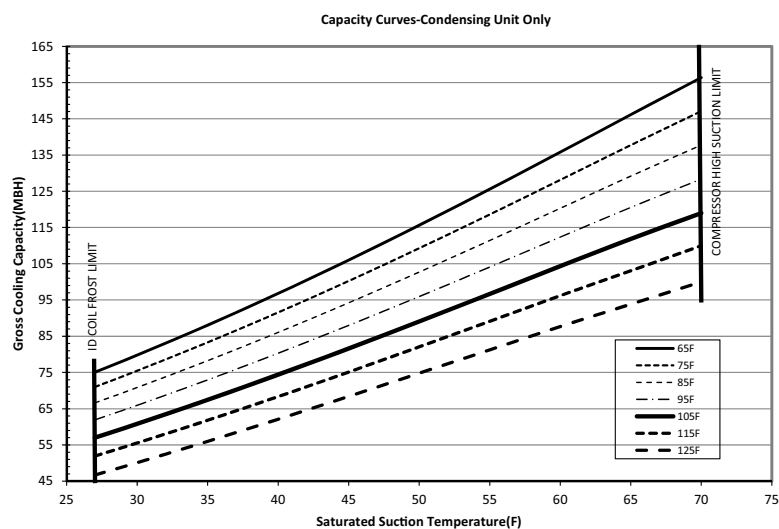


Table 23. Gross cooling capacities (MBH) 7.5 tons TWA0904*D condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	255.1	261.4	268.0	274.8	281.9	289.5
	Capacity (Btuh/1000)	79.8	88.1	96.8	106.0	115.6	125.6
	Unit Power (kW)	4.9	4.9	5.0	5.0	5.1	5.1
75	Head Press (psig)	292.5	299.1	305.9	312.9	320.2	328.2
	Capacity (Btuh/1000)	75.5	83.3	91.6	100.3	109.3	118.6
	Unit Power (kW)	5.4	5.5	5.5	5.6	5.6	5.7
85	Head Press (psig)	333.3	340.1	347.1	354.4	361.8	370.2
	Capacity (Btuh/1000)	70.8	78.3	86.1	94.2	102.7	111.4
	Unit Power (kW)	6.0	6.1	6.1	6.2	6.2	6.3
95	Head Press (psig)	377.6	384.6	391.9	399.3	406.8	415.5
	Capacity (Btuh/1000)	65.9	73.0	80.3	88.0	96.0	104.1
	Unit Power (kW)	6.7	6.8	6.8	6.9	6.9	7.0
105	Head Press (psig)	425.6	432.8	440.2	447.8	455.4	464.1
	Capacity (Btuh/1000)	60.8	67.5	74.4	81.6	89.1	96.7
	Unit Power (kW)	7.6	7.6	7.6	7.7	7.7	7.8
115	Head Press (psig)	477.6	484.9	492.3	499.9	507.4	515.7
	Capacity (Btuh/1000)	55.5	61.8	68.3	75.1	82.1	89.1
	Unit Power (kW)	8.5	8.5	8.6	8.6	8.6	8.7
125	Head Press (psig)	533.4	540.5	547.8	555.1	562.3	569.5
	Capacity (Btuh/1000)	50.1	56.0	62.1	68.4	74.8	81.2
	Unit Power (kW)	9.6	9.6	9.6	9.7	9.7	9.7

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

Figure 11. TWA0904*D capacity curves




Performance Data

Table 24. Gross cooling capacities (MBH) 10 tons TWA1204*A condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	265.3	271.2	277.1	283.1	289.0	294.7
	Capacity (Btuh/1000)	105.2	115.8	127.1	139.1	151.6	164.6
	Unit Power (kW)	7.0	7.1	7.2	7.3	7.4	7.6
75	Head Press (psig)	303.8	309.8	315.9	322.0	327.9	333.7
	Capacity (Btuh/1000)	99.7	109.8	120.6	131.9	143.8	156.1
	Unit Power (kW)	7.6	7.7	7.8	7.9	8.0	8.1
85	Head Press (psig)	346.1	352.3	358.5	364.6	370.6	376.3
	Capacity (Btuh/1000)	94.1	103.6	113.8	124.6	135.8	147.4
	Unit Power (kW)	8.3	8.4	8.5	8.6	8.7	8.8
95	Head Press (psig)	392.4	398.7	405.0	411.1	417.0	422.5
	Capacity (Btuh/1000)	88.2	97.2	106.9	117.0	127.6	138.4
	Unit Power (kW)	9.1	9.2	9.3	9.4	9.5	9.6
105	Head Press (psig)	443.0	449.4	455.6	461.7	467.4	472.7
	Capacity (Btuh/1000)	82.0	90.6	99.6	109.1	119.1	129.2
	Unit Power (kW)	10.0	10.1	10.2	10.3	10.4	10.4
115	Head Press (psig)	498.0	504.3	510.4	516.2	521.6	526.4
	Capacity (Btuh/1000)	75.6	83.6	92.1	101.0	110.2	119.7
	Unit Power (kW)	11.0	11.1	11.2	11.3	11.3	11.4
125	Head Press (psig)	557.5	563.5	569.1	574.3	579.1	583.2
	Capacity (Btuh/1000)	68.8	76.2	84.1	92.4	100.9	109.6
	Unit Power (kW)	12.0	12.1	12.2	12.3	12.4	12.5

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

Figure 12. TWA1204*A capacity curves

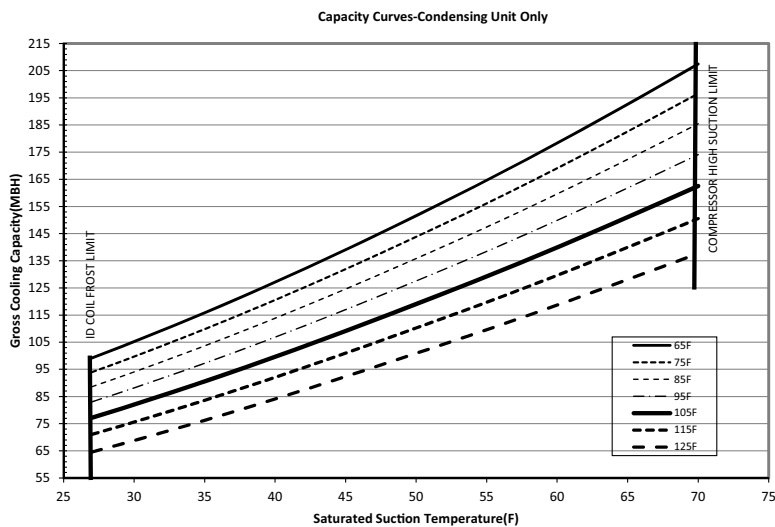
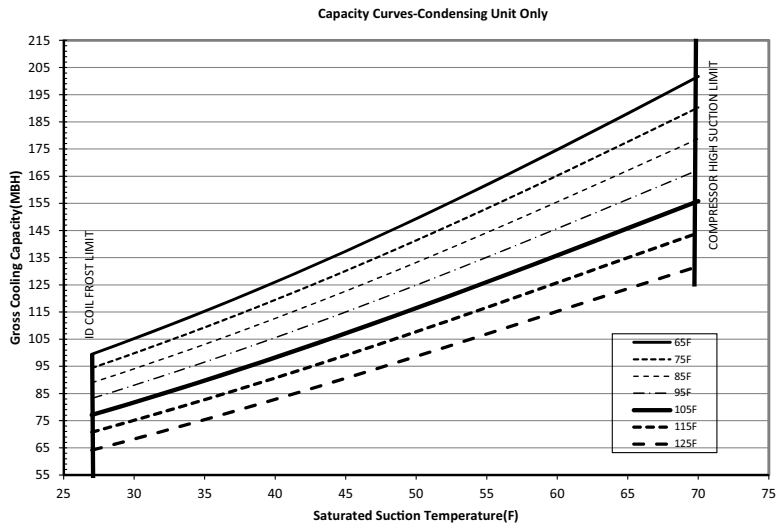


Table 25. Gross cooling capacities (MBH) 10 tons TWA1204*D condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	252.9	258.6	264.6	270.9	277.5	284.4
	Capacity (Btuh/1000)	105.2	115.3	126.0	137.4	149.3	161.8
	Unit Power (kW)	6.5	6.6	6.7	6.8	6.9	7.0
75	Head Press (psig)	290.6	296.5	302.7	309.2	316.0	323.1
	Capacity (Btuh/1000)	99.8	109.3	119.5	130.1	141.4	153.1
	Unit Power (kW)	7.2	7.3	7.3	7.5	7.6	7.7
85	Head Press (psig)	331.9	338.0	344.4	351.2	358.1	365.3
	Capacity (Btuh/1000)	94.1	103.1	112.6	122.7	133.2	144.2
	Unit Power (kW)	7.9	8.0	8.1	8.2	8.4	8.5
95	Head Press (psig)	376.9	383.3	389.9	396.8	403.9	411.2
	Capacity (Btuh/1000)	88.1	96.6	105.6	115.0	124.9	135.2
	Unit Power (kW)	8.8	8.9	9.0	9.1	9.2	9.4
105	Head Press (psig)	425.8	432.4	439.3	446.3	453.6	461.0
	Capacity (Btuh/1000)	81.7	89.8	98.2	107.1	116.4	126.0
	Unit Power (kW)	9.8	9.9	10.0	10.1	10.2	10.4
115	Head Press (psig)	479.0	485.8	492.7	499.9	507.2	514.6
	Capacity (Btuh/1000)	75.1	82.7	90.7	99.1	107.7	116.7
	Unit Power (kW)	11.0	11.1	11.2	11.3	11.4	11.5
125	Head Press (psig)	536.3	543.1	550.0	557.1	564.2	571.3
	Capacity (Btuh/1000)	68.2	75.4	82.8	90.6	98.6	106.9
	Unit Power (kW)	12.4	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 13. TWA1204*D capacity curves




Performance Data

Table 26. Gross cooling capacities (MBH) 15 tons TWA1804*D condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	236.8	241.3	246.0	251.1	256.7	262.6
	Capacity (Btuh/1000)	165.5	180.2	195.9	212.6	230.4	249.3
	Unit Power (kW)	11.2	11.3	11.6	11.8	12.1	12.3
75	Head Press (psig)	272.9	277.6	282.6	287.9	293.7	299.8
	Capacity (Btuh/1000)	156.7	170.7	185.6	201.4	218.2	236.0
	Unit Power (kW)	12.1	12.3	12.5	12.7	12.9	13.2
85	Head Press (psig)	312.3	317.2	322.4	327.9	333.8	340.1
	Capacity (Btuh/1000)	147.1	160.3	174.3	189.1	204.9	221.6
	Unit Power (kW)	13.1	13.3	13.5	13.7	13.9	14.2
95	Head Press (psig)	355.2	360.2	365.5	371.1	377.2	383.8
	Capacity (Btuh/1000)	136.7	149.0	162.1	176.0	190.7	206.2
	Unit Power (kW)	14.2	14.4	14.6	14.8	15.0	15.3
105	Head Press (psig)	401.7	406.8	412.2	418.1	424.4	431.0
	Capacity (Btuh/1000)	125.8	137.3	149.4	162.1	175.6	189.8
	Unit Power (kW)	15.5	15.7	15.8	16.1	16.3	16.5
115	Head Press (psig)	452.2	457.4	462.9	468.7	474.8	481.3
	Capacity (Btuh/1000)	114.4	124.8	135.8	147.3	159.4	172.2
	Unit Power (kW)	16.9	17.1	17.3	17.5	17.7	17.9
125	Head Press (psig)	506.6	511.5	516.8	522.3	528.1	534.2
	Capacity (Btuh/1000)	102.2	111.4	121.1	131.3	142.0	153.3
	Unit Power (kW)	18.6	18.7	18.9	19.1	19.3	19.5

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

Figure 14. TWA1804*D capacity curves

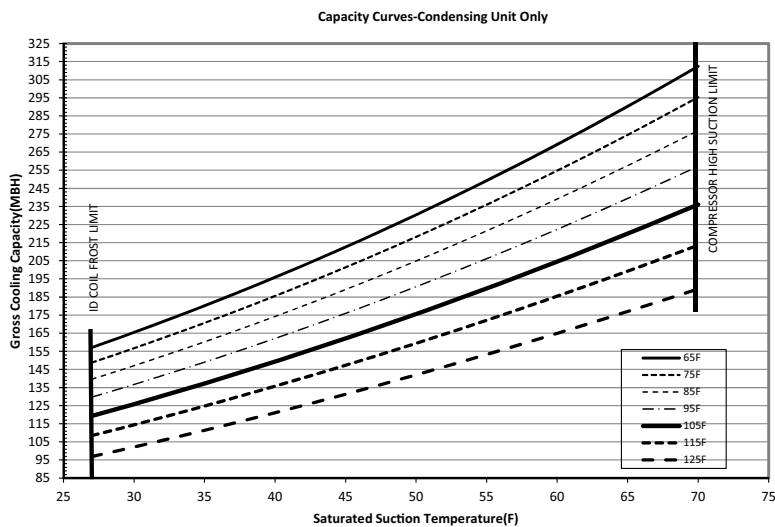
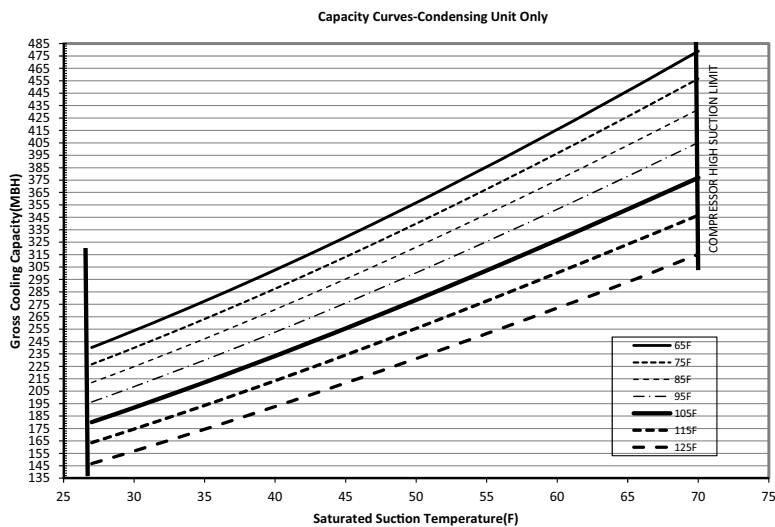


Table 27. Gross cooling capacities (MBH) 20 tons TWA2404*D condensing unit only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	267.8	275.1	282.8	291	299.8	309.1
	Capacity (Btuh/1000)	253.8	277.5	302.6	329	356.7	385.7
	Unit Power (kW)	15.9	16.2	16.5	16.9	17.2	17.6
75	Head Press (psig)	304.6	312.3	320.5	329.2	338.4	348.1
	Capacity (Btuh/1000)	240	263.1	287.6	313.2	340	367.8
	Unit Power (kW)	17.1	17.4	17.8	18.2	18.6	19
85	Head Press (psig)	344.6	352.7	361.3	370.3	379.9	390
	Capacity (Btuh/1000)	224.8	247.2	270.8	295.4	321	347.5
	Unit Power (kW)	18.6	19	19.3	19.7	20.2	20.6
95	Head Press (psig)	387.9	396.3	405.2	414.6	424.4	434.7
	Capacity (Btuh/1000)	208.7	230.1	252.6	276	300.4	325.5
	Unit Power (kW)	20.4	20.8	21.1	21.6	22	22.5
105	Head Press (psig)	434.8	443.4	452.5	462	472	482.5
	Capacity (Btuh/1000)	191.8	212.1	233.4	255.5	278.5	302.3
	Unit Power (kW)	22.5	22.9	23.2	23.6	24.1	24.6
115	Head Press (psig)	485.4	494	503.1	512.5	522.5	532.8
	Capacity (Btuh/1000)	174.5	193.5	213.5	234.2	255.6	277.7
	Unit Power (kW)	24.9	25.2	25.6	26	26.4	26.8
125	Head Press (psig)	539.4	547.7	556.4	565.6	575	584.9
	Capacity (Btuh/1000)	156.8	174.3	192.6	211.6	231.2	251.4
	Unit Power (kW)	27.6	27.9	28.1	28.5	28.8	29.2

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

Figure 15. TWA2404*D capacity curves




Performance Data

Gross Heating Capacities

Table 28. Gross heating capacities (MBH) 6 tons TWA0724*A heat pump with 7.5 tons TWE0904*A standard air handler at 2400 CFM (IP)

Outdoor Temp (°F)	Integrated Heating Capacity (MBH) at Indicated Indoor Dry Bulb Temp (°F)				Total Power (kW) at Indicated Indoor Dry Bulb Temp (°F)			
	60	70	75	80	60	70	75	80
-18	20.8	19.6	18.9	18.1	5.2	5.4	5.7	5.9
-13	24.1	22.9	22.2	21.4	5.1	5.5	5.8	6.0
-8	27.5	26.3	25.6	24.8	5.2	5.6	5.8	6.1
-3	30.9	29.7	29.0	28.2	5.2	5.6	5.9	6.2
2	34.5	33.2	32.4	31.6	5.3	5.7	6.0	6.2
7	38.0	36.7	36.0	35.2	5.3	5.8	6.0	6.3
12	41.7	40.3	39.5	38.7	5.4	5.8	6.1	6.4
17	45.6	44.1	43.3	42.4	5.5	5.9	6.2	6.4
22	49.7	48.0	47.1	46.2	5.5	6.0	6.2	6.5
27	53.9	52.1	51.2	50.2	5.6	6.1	6.3	6.6
32	58.3	56.4	55.4	54.4	5.7	6.1	6.4	6.7
37	62.7	60.6	59.6	58.5	5.7	6.2	6.5	6.7
42	67.3	65.0	63.9	62.8	5.8	6.3	6.5	6.8
47	72.2	69.7	68.5	67.3	5.9	6.4	6.6	6.9
52	77.2	74.6	73.3	72.0	5.9	6.4	6.7	7.0
57	82.5	79.7	78.2	76.8	6.0	6.5	6.8	7.1
62	87.9	84.9	83.3	81.8	6.1	6.6	6.9	7.2
67	93.5	90.2	88.6	87.0	6.2	6.7	7.0	7.3
72	99.2	95.7	93.9	92.2	6.3	6.8	7.1	7.4

Notes:

1. Net heating capacity and power include indoor fan heat at AHRI ESP. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.
2. Integrated heating capacities and power include the effects of defrost in the frost region. All heating capacities and power are at 70% outdoor relative humidity and demand defrost cycle.

Table 29. Gross heating capacities (MBH) 6 tons TWA0724*D heat pump with 6 tons TWE0724*B standard air handler at 2400 CFM (IP)

Outdoor Temp (°F)	Integrated Heating Capacity (MBH) at Indicated Indoor Dry Bulb Temp (°F)				Total Power (kW) at Indicated Indoor Dry Bulb Temp (°F)			
	60	70	75	80	60	70	75	80
-18	15.2	13.2	12.0	10.8	4.0	4.4	4.6	4.9
-13	17.8	15.9	14.7	13.5	4.0	4.5	4.7	5.0
-8	20.5	18.5	17.6	16.8	4.2	4.7	4.9	5.2
-3	23.3	21.7	21.0	20.2	4.3	4.8	5.1	5.3
2	26.5	25.2	24.4	23.7	4.5	4.9	5.2	5.5
7	30.1	28.7	28.0	27.3	4.6	5.0	5.3	5.6
12	33.6	32.2	31.5	30.8	4.7	5.1	5.4	5.7
17	37.5	36.0	35.3	34.5	4.7	5.2	5.5	5.8
22	41.5	40.0	39.2	38.4	4.8	5.3	5.6	5.9
27	45.7	44.1	43.3	42.4	4.9	5.4	5.6	5.9
32	50.1	48.4	47.5	46.6	4.9	5.4	5.7	6.0
37	54.6	52.7	51.7	50.8	5.0	5.5	5.8	6.1
42	59.1	57.0	56.0	55.0	5.1	5.6	5.9	6.2
47	63.8	61.6	60.6	59.5	5.1	5.7	5.9	6.2
52	68.9	66.6	65.5	64.3	5.2	5.7	6.0	6.3
57	74.2	71.7	70.5	69.3	5.3	5.8	6.1	6.4
62	79.7	77.0	75.7	74.3	5.4	5.9	6.2	6.5
67	85.3	82.4	80.9	79.5	5.5	6.0	6.3	6.6
72	91.1	88.0	86.4	84.9	5.6	6.2	6.5	6.8

Notes:

1. Net heating capacity and power include indoor fan heat at AHRI ESP. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.
2. Integrated heating capacities and power include the effects of defrost in the frost region. All heating capacities and power are at 70% outdoor relative humidity and demand defrost cycle.

Table 30. Gross heating capacities (MBH) 7.5 tons TWA0904*A heat pump with 7.5 tons TWE0904*A standard air handler at 2625 CFM (IP)

Outdoor Temp (°F)	Integrated Heating Capacity (MBH) at Indicated Indoor Dry Bulb Temp (°F)				Total Power (kW) at Indicated Indoor Dry Bulb Temp (°F)			
	60	70	75	80	60	70	75	80
-18	24.1	24.3	24.3	24.2	5.3	5.9	6.2	6.6
-13	26.9	27.0	27.1	26.9	5.3	5.9	6.3	6.6
-8	30.0	29.9	30.2	29.7	5.4	6.0	6.3	6.6
-3	33.9	33.7	33.5	32.6	5.4	6.0	6.3	6.7
2	37.6	37.2	36.9	36.6	5.5	6.1	6.4	6.7
7	40.8	40.2	39.9	39.5	5.6	6.1	6.4	6.8
12	44.8	44.1	43.7	43.3	5.6	6.2	6.5	6.8
17	49.1	48.2	47.8	47.2	5.7	6.3	6.6	6.9
22	53.6	52.6	52.0	51.4	5.8	6.4	6.7	7.0
27	58.3	57.1	56.4	55.8	6.0	6.5	6.8	7.1
32	63.3	61.9	61.1	60.3	6.1	6.6	6.9	7.2
37	68.2	66.6	65.7	64.9	6.2	6.7	7.0	7.4
42	73.2	71.4	70.4	69.5	6.3	6.9	7.2	7.5
47	78.4	76.4	75.4	74.3	6.4	7.0	7.3	7.6
52	84.0	81.8	80.6	79.5	6.6	7.2	7.5	7.8
57	89.7	87.2	86.0	84.7	6.7	7.3	7.6	8.0
62	95.9	93.2	91.8	90.4	6.9	7.5	7.8	8.1
67	102.3	99.4	97.8	96.3	7.1	7.7	8.0	8.4
72	107.9	105.7	104.0	102.3	7.5	7.9	8.2	8.6

Notes:

1. Net heating capacity and power include indoor fan heat at AHRI ESP. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.
2. Integrated heating capacities and power include the effects of defrost in the frost region. All heating capacities and power are at 70% outdoor relative humidity and demand defrost cycle.

Table 31. Gross heating capacities (MBH) 7.5 tons TWA0904*D heat pump with 7.5 tons TWE0904*B standard air handler at 3000 CFM (IP)

Outdoor Temp (°F)	Integrated Heating Capacity (MBH) at Indicated Indoor Dry Bulb Temp (°F)				Total Power (kW) at Indicated Indoor Dry Bulb Temp (°F)			
	60	70	75	80	60	70	75	80
-18	21.8	21.2	20.8	20.3	6.0	6.7	7.0	7.4
-13	25.3	24.7	24.3	23.7	6.0	6.7	7.0	7.4
-8	28.9	28.3	28.0	27.6	6.0	6.7	7.0	7.4
-3	32.7	32.2	31.8	31.4	6.0	6.7	7.1	7.4
2	36.8	36.0	35.6	35.2	6.1	6.7	7.1	7.5
7	40.9	40.1	39.7	39.2	6.1	6.8	7.1	7.5
12	45.3	44.3	43.8	43.3	6.2	6.8	7.2	7.6
17	49.9	49.0	48.2	47.7	6.2	6.9	7.2	7.6
22	54.8	53.5	52.8	52.1	6.3	6.9	7.3	7.7
27	59.8	58.3	57.6	56.7	6.3	7.0	7.3	7.7
32	65.1	63.4	62.5	61.6	6.4	7.0	7.4	7.8
37	70.4	68.4	67.3	66.4	6.5	7.1	7.5	7.8
42	75.7	73.4	72.3	71.1	6.5	7.2	7.5	7.9
47	81.2	78.6	77.4	76.1	6.6	7.2	7.6	8.0
52	86.9	84.2	82.8	81.5	6.7	7.3	7.7	8.0
57	93.1	90.0	88.5	87.0	6.8	7.4	7.7	8.1
62	99.4	96.1	94.4	92.9	6.9	7.5	7.8	8.2
67	106.1	102.4	100.6	98.8	7.0	7.6	8.0	8.3
72	112.8	108.7	106.6	104.5	7.1	7.7	8.0	8.4

Notes:

1. Net heating capacity and power include indoor fan heat at AHRI ESP. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.
2. Integrated heating capacities and power include the effects of defrost in the frost region. All heating capacities and power are at 70% outdoor relative humidity and demand defrost cycle.



Performance Data

Table 32. Gross heating capacities (MBH) 10 tons TWA1204*A heat pump with 10 tons TWE1204*A standard air handler at 4000 CFM (IP)

Outdoor Temp (°F)	Integrated Heating Capacity (MBH) at Indicated Indoor Dry Bulb Temp (°F)				Total Power (kW) at Indicated Indoor Dry Bulb Temp (°F)			
	60	70	75	80	60	70	75	80
-18	33.9	33.9	33.9	33.9	8.0	8.7	9.0	9.4
-13	38.8	38.7	38.7	38.7	8.2	8.9	9.3	9.7
-8	43.9	43.7	43.7	43.6	8.4	9.2	9.5	9.9
-3	49.3	48.9	48.8	48.7	8.6	9.4	9.7	10.1
2	54.9	54.4	54.2	54.0	8.8	9.5	9.9	10.3
7	60.8	60.1	59.9	59.6	8.9	9.7	10.1	10.5
12	66.6	65.9	65.5	65.1	9.1	9.9	10.3	10.7
17	73.1	72.1	71.6	71.2	9.2	10.0	10.4	10.9
22	79.9	78.7	78.1	77.6	9.4	10.2	10.6	11.0
27	87.1	85.6	84.9	84.2	9.5	10.3	10.7	11.2
32	94.9	93.0	92.1	91.3	9.6	10.4	10.8	11.3
37	102.2	100.2	99.2	98.2	9.7	10.5	10.9	11.4
42	109.9	107.6	106.5	105.4	9.8	10.6	11.0	11.5
47	118.0	115.4	114.1	112.8	9.9	10.7	11.1	11.6
52	126.4	123.3	121.8	120.4	10.0	10.8	11.2	11.7
57	134.7	131.3	129.6	127.9	10.0	10.8	11.3	11.7
62	142.8	138.8	136.9	135.0	10.1	10.9	11.3	11.8
67	150.9	146.6	144.5	142.4	10.2	11.0	11.5	11.9
72	160.0	155.3	153.0	150.7	10.4	11.2	11.7	12.1

Notes:

1. Net heating capacity and power include indoor fan heat at AHRI ESP. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.
2. Integrated heating capacities and power include the effects of defrost in the frost region. All heating capacities and power are at 70% outdoor relative humidity and demand defrost cycle.

Table 33. Gross heating capacities (MBH) 10 tons TWA1204*D heat pump with 10 tons TWE1204*B standard air handler at 4000 CFM (IP)

Outdoor Temp (°F)	Integrated Heating Capacity (MBH) at Indicated Indoor Dry Bulb Temp (°F)				Total Power (kW) at Indicated Indoor Dry Bulb Temp (°F)			
	60	70	75	80	60	70	75	80
-18	33.8	32.8	32.1	31.5	7.6	8.3	8.7	9.1
-13	38.2	37.2	36.6	35.9	7.7	8.4	8.8	9.3
-8	42.9	41.9	41.3	40.6	7.8	8.6	9.0	9.4
-3	47.9	46.8	46.1	45.5	7.9	8.7	9.1	9.6
2	53.1	51.9	51.4	50.5	8.1	8.8	9.2	9.7
7	58.5	57.4	56.6	55.9	8.2	8.9	9.4	9.8
12	64.0	62.6	61.8	61.1	8.3	9.1	9.5	10.0
17	70.0	68.4	67.6	66.8	8.4	9.2	9.6	10.1
22	76.3	74.5	73.6	72.7	8.5	9.3	9.8	10.2
27	82.9	80.9	79.9	79.0	8.6	9.4	9.9	10.4
32	90.0	87.8	86.7	85.7	8.7	9.6	10.0	10.5
37	96.8	94.3	93.1	91.9	8.9	9.7	10.1	10.6
42	103.9	101.2	99.8	98.6	9.0	9.8	10.3	10.8
47	111.4	108.4	106.9	105.5	9.1	9.9	10.4	10.9
52	119.2	115.9	114.2	112.7	9.2	10.1	10.6	11.1
57	127.1	123.5	121.7	120.0	9.4	10.3	10.7	11.2
62	135.0	131.0	129.1	127.2	9.5	10.4	10.9	11.4
67	142.7	138.3	136.2	134.2	9.7	10.6	11.0	11.5
72	150.1	145.3	142.9	140.6	9.9	10.7	11.2	11.7

Notes:

1. Net heating capacity and power include indoor fan heat at AHRI ESP. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.
2. Integrated heating capacities and power include the effects of defrost in the frost region. All heating capacities and power are at 70% outdoor relative humidity and demand defrost cycle.

Table 34. Gross heating capacities (MBH) 15 tons TWA1804*D heat pump with 15 tons TWE1804*B standard/SZVAV handler at 6000 CFM (IP)

Outdoor Temp (°F)	Integrated Heating Capacity (MBH) at Indicated Indoor Dry Bulb Temp (°F)				Total Power (kW) at Indicated Indoor Dry Bulb Temp (°F)			
	60	70	75	80	60	70	75	80
-18	54.6	53.6	53.1	52.4	12.3	13.3	13.8	14.4
-13	62.8	61.7	60.9	60.3	12.5	13.5	14.1	14.6
-8	71.2	69.6	68.9	68.1	12.7	13.7	14.3	14.9
-3	79.7	77.9	76.9	76	12.9	13.9	14.5	15.1
2	88.3	86.2	85.1	84	13.1	14.1	14.7	15.3
7	97.1	94.7	93.5	92.3	13.3	14.3	14.9	15.5
12	105.4	102.7	101.4	100	13.5	14.6	15.2	15.8
17	114.6	111.7	110.2	108.7	13.7	14.8	15.4	16
22	124.2	120.9	119.2	117.6	13.9	15	15.6	16.2
27	134.4	130.5	128.7	126.8	14.1	15.2	15.8	16.5
32	144.9	140.8	138.8	136.8	14.4	15.5	16.1	16.7
37	155	150.6	148.4	146.2	14.6	15.7	16.3	17
42	165.7	160.9	158.5	156.1	14.9	16	16.6	17.2
47	177.2	172.1	169.5	166.9	15.2	16.3	16.9	17.5
52	189.5	183.9	181.1	178.4	15.5	16.6	17.2	17.9
57	202.2	196.2	193.2	190.3	15.8	17	17.6	18.2
62	215.3	208.9	205.7	202.6	16.2	17.3	18	18.6
67	228.9	222.1	218.7	215.5	16.6	17.7	18.4	19
72	243.1	235.7	232.1	228.7	17	18.2	18.8	19.5

Notes:

1. Net heating capacity and power include indoor fan heat at AHRI ESP. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.
2. Integrated heating capacities and power include the effects of defrost in the frost region. All heating capacities and power are at 70% outdoor relative humidity and demand defrost cycle.

Table 35. Gross heating capacities (MBH) 20 tons TWA2404*D heat pump with 20 tons TWE2404*B standard/SZVAV air handler at 8000 CFM (IP)

Outdoor Temp (°F)	Integrated Heating Capacity (MBH) at Indicated Indoor Dry Bulb Temp (°F)				Total Power (kW) at Indicated Indoor Dry Bulb Temp (°F)			
	60	70	75	80	60	70	75	80
-18	71.1	62.9	59.5	56.7	16.0	17.6	18.7	19.8
-13	79.7	71.9	68.9	66.1	16.4	18.0	19.1	20.2
-8	89.1	82.0	79.1	76.3	16.8	18.4	19.5	20.6
-3	100.1	93.1	90.1	87.2	17.2	18.9	19.8	21.0
2	111.9	104.8	101.8	99.0	17.6	19.3	20.3	21.4
7	124.4	117.4	114.3	111.5	18.0	19.7	20.7	21.8
12	137.9	130.8	127.6	124.7	18.5	20.1	21.1	22.2
17	152.2	145.0	141.8	138.8	18.9	20.6	21.5	22.6
22	167.4	160.1	156.8	153.6	19.3	21.0	22.0	23.1
27	183.5	176.0	172.5	169.2	19.7	21.5	22.5	23.6
32	200.5	192.8	189.1	185.6	20.2	21.9	22.9	24.0
37	217.6	209.6	205.8	202.1	20.6	22.4	23.4	24.5
42	235.4	227.1	223.1	219.3	21.1	22.9	23.9	25.0
47	254.0	245.5	241.3	237.3	21.6	23.4	24.4	25.5
52	273.9	265.0	260.7	256.4	22.1	24.0	25.0	26.1
57	294.1	285.0	280.4	276.0	22.6	24.6	25.6	26.7
62	314.9	305.4	300.7	296.1	23.2	25.2	26.2	27.4
67	336.3	326.4	321.5	316.7	23.8	25.8	26.9	28.0
72	358.2	347.9	342.8	337.7	24.4	26.5	27.6	28.7

Notes:

1. Net heating capacity and power include indoor fan heat at AHRI ESP. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.
2. Integrated heating capacities and power include the effects of defrost in the frost region. All heating capacities and power are at 70% outdoor relative humidity and demand defrost cycle.



Performance Data

Fan Performance

Table 36. Evaporator fan performance — TWE060 — 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.

Table 37. Evaporator fan performance — TWE072 — 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.

Performance Data

Table 38. Evaporator fan performance - TWE072** - 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	60	2.03	1172	61	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	61	2.14	1179	62	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	60	2.12	1150	61	2.26	1186	63	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	60	2.23	1157	61	2.38	1193	62	2.53	1226	54	2.68	1258	56	2.84	1291	57	3.01	—	—	—	—	—	—
2880	1050	56	2.02	1087	58	2.16	1127	60	2.34	1163	62	2.50	1199	63	2.66	1233	55	2.82	1266	56	2.98	1295	57	3.15	—	—	—	—	—	—
3 HP High Static Drive																														

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 39. 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.

Table 40. 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"		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																														
2400	—	—	—	572	31	0.52	634	34	0.62	691	37	0.74	744	40	0.85	795	43	0.96	844	45	1.08	892	48	1.21	939	50	1.35	982	53	1.49
2550	—	—	—	592	32	0.59	652	35	0.70	707	38	0.82	759	41	0.95	809	43	1.06	856	46	1.18	902	48	1.31	947	51	1.45	990	53	1.59
2700	—	—	—	612	33	0.67	670	36	0.79	724	39	0.91	774	42	1.05	822	44	1.18	868	47	1.29	913	49	1.42	957	51	1.56	999	54	1.71
2850	575	31	0.68	633	34	0.73	689	37	0.89	741	40	1.01	790	42	1.15	837	45	1.29	882	47	1.42	925	50	1.55	967	52	1.68	1008	54	1.83
3000	599	32	0.76	654	35	0.82	709	38	0.99	760	41	1.13	807	43	1.26	853	46	1.41	896	48	1.56	939	50	1.69	980	53	1.82	1020	55	1.97
3150	623	33	0.85	675	36	0.93	729	39	1.11	778	42	1.25	825	44	1.39	869	47	1.54	911	49	1.70	953	51	1.85	992	53	1.98	1031	46	2.12
3300	647	35	0.95	697	37	1.09	749	40	1.22	797	43	1.38	842	45	1.52	886	48	1.67	927	50	1.83	967	52	2.00	1007	45	2.15	1045	46	2.30
3450	673	36	1.08	724	39	1.26	770	41	1.32	816	44	1.52	861	46	1.67	903	48	1.82	943	51	1.98	983	44	2.16	1020	45	2.33	1058	47	2.48
3600	698	37	1.21	746	40	1.43	790	42	1.43	836	45	1.67	880	47	1.83	922	49	1.98	961	43	2.14	999	44	2.32	1037	46	2.51	1073	48	2.68
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																														
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
2550	1032	55	1.74	1071	57	1.88	1109	60	2.03	1145	51	2.17	1181	52	2.32	1215	54	2.46	1248	55	2.61	1281	57	2.75	1311	58	2.89	1341	59	3.04
2700	1040	56	1.86	1079	58	2.01	1117	49	2.17	1154	51	2.32	1189	53	2.47	1223	54	2.62	1255	56	2.77	1288	57	2.93	—	—	—	—	—	—
2850	1048	56	1.99	1087	48	2.14	1126	50	2.31	1161	51	2.47	1198	53	2.63	1232	55	2.79	1264	56	2.95	—	—	—	—	—	—	—	—	—
3000	1058	47	2.12	1096	49	2.29	1135	50	2.46	1171	52	2.63	1206	53	2.80	1239	55	2.96	—	—	—	—	—	—	—	—	—	—	—	—
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 41. 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.

Table 42. 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	
3400	—	—	—	—	—	611	40	1.01	646	42	1.09	679	44	1.18	711	47	1.27	742	49	1.38	771	
3600	—	—	—	—	—	598	39	1.04	634	41	1.16	668	44	1.26	700	46	1.34	731	48	1.44	761	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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																
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:**
- 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 43. 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	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	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.

Table 44. Evaporator fan performance - TWE150** - 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	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	
2 HP Standard Drive																															
4000	—	—	—	—	—	—	—	—	—	614	40	0.85	658	43	0.98	698	46	1.12	728	48	1.22	756	49	1.32	786	51	1.43	817	53	1.56	
4200	—	—	—	—	—	—	—	581	38	0.80	627	41	0.93	669	44	1.05	710	46	1.21	744	49	1.34	772	51	1.44	799	52	1.55	827	54	1.66
4400	—	—	—	—	—	—	—	595	39	0.88	640	42	1.02	682	45	1.15	722	47	1.29	758	50	1.45	789	52	1.58	814	53	1.68	840	55	1.79
4600	—	—	—	—	—	—	—	609	40	0.96	653	43	1.11	695	45	1.25	732	48	1.38	771	50	1.55	804	53	1.71	831	54	1.83	856	56	1.94
4800	—	—	—	—	579	38	0.90	624	41	1.05	667	44	1.20	707	46	1.35	745	49	1.50	783	51	1.66	817	53	1.83	847	55	1.98	872	57	2.10
5000	—	—	—	595	39	0.99	639	42	1.15	681	45	1.31	721	47	1.47	759	50	1.62	794	52	1.77	828	54	1.94	861	56	2.12	888	45	2.23	
5200	—	—	—	612	40	1.09	655	43	1.25	695	45	1.42	735	48	1.58	771	50	1.74	806	53	1.90	840	55	2.06	873	44	2.25	903	45	2.43	
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	43	2.20	885	45	2.38	915	46	2.56	
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	44	2.35	896	45	2.52	928	47	2.73	
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	44	2.51	908	46	2.68	938	47	2.87	
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	45	2.68	920	46	2.86	950	48	3.03	
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	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	
5 HP High Static Drive																															
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	53	2.86	1078	54	3.03	1101	55	3.20	
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	53	2.98	1085	55	3.15	1109	56	3.33	
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	54	3.11	1094	55	3.30	1117	56	3.47	
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	54	3.22	1101	55	3.43	1125	57	3.61	
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	54	3.34	1105	56	3.55	1131	57	3.74	
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	55	3.48	1109	56	3.67	1135	57	3.87	
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	55	3.62	1115	56	3.82	1139	57	4.01	
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	55	3.79	1122	57	3.98	1146	58	4.17	
5600	956	48	2.92	982	49	3.11	1004	51	3.25	1025	52	3.39	1045	53	3.52	1065	54	3.66	1085	55	3.81	1108	56	3.98	1130	57	4.16	1153	58	4.35	
5800	969	49	3.09	996	50	3.29	1020	51	3.47	1041	52	3.62	1062	54	3.77	1081	54	3.91	1099	55	4.04	1120	56	4.20	1141	57	4.37	1162	59	4.55	
6000	980	49	3.25	1008	51	3.46	1034	52	3.67	1057	53	3.86	1077	54	4.01	1097	55	4.16	1115	56	4.30	1134	57	4.45	1153	58	4.60	1174	59	4.78	
External Static Pressure (Inches of Water Gauge)																															
2.10"			2.20"			2.30"			2.40"																						
CFM	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP																
5 HP High Static Drive																															
4000	1126	57	3.38	1148	58	3.54	1170	59	3.73	1191	60	3.89																			
4200	1132	57	3.51	1155	58	3.69	1179	59	3.88	1200	60	4.06																			
4400	1141	57	3.66	1163	59	3.84	1186	60	4.03	—	—	—																			
4600	1150	58	3.81	1172	59	4.00	1193	60	4.18	—	—	—																			
4800	1157	58	3.96	1179	59	4.15	—	—	—	—	—	—																			
5000	1161	58	4.09	1186	60	4.30	—	—	—	—	—	—																			
5200	1164	59	4.21	1189	60	4.44	—	—	—	—	—	—																			
5400	1170	59	4.38	1193	60	4.58	—	—	—	—	—	—																			
5600	1176	59	4.55	1198	60	4.74	—	—	—	—	—	—																			
5800	1184	60	4.74	—	—	—	—	—	—	—	—	—																			
6000	1194	60	4.96	—	—	—	—	—	—	—	—	—																			

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 45. 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 w/ Field Supplied Sheave & Belt	5 HP High Static Motor																						
	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.

Table 46. 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
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
5100	—	—	—	562	39	1.08	604	42	1.24	644	45	1.38	681	48	1.52	718	50	1.67	753
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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 47. 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 Sheaves								7.5 HP Ultra High Static Motor				7.5 HP Ultra High Static Motor w/Field Supplied Fan Sheave & Belt				
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.

Table 48. Evaporator fan performance - TWE240** - 2-speed VFD, SZVAV air handler**

External Static Pressure (Inches of Water Gauge)																					
0.10"		0.20" ESP		0.30" ESP		0.40" ESP		0.50" ESP		0.60" ESP		0.70" ESP		0.80" ESP		0.90" ESP		1.00" ESP			
CFM	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP	RPM	HZ	BHP
5 HP Standard Drive																					
6400	—	—	—	—	—	—	—	—	—	732	39	1.86	769	41	2.02	802	42	2.17	833	44	2.33
6800	—	—	—	—	—	—	717	38	1.96	754	40	2.12	791	42	2.29	824	43	2.46	855	45	2.62
7200	—	—	—	—	—	—	742	39	2.24	778	41	2.42	812	43	2.59	846	45	2.77	878	46	2.95
7600	—	—	—	—	—	—	729	38	2.34	766	40	2.55	802	42	2.74	835	44	2.92	868	46	3.10
8000	—	—	—	716	38	2.47	755	40	2.67	791	42	2.88	826	44	3.09	858	45	3.28	889	47	3.47
8400	—	—	—	744	39	2.82	781	41	3.02	817	43	3.24	851	45	3.46	883	47	3.68	913	48	3.87
8800	737	39	3.01	773	41	3.21	808	43	3.41	843	44	3.63	876	46	3.87	907	48	4.10	937	49	4.31
9200	767	40	3.41	802	42	3.63	836	44	3.84	869	46	4.06	901	47	4.30	932	49	4.55	961	51	4.79
9600	797	42	3.86	831	44	4.08	863	45	4.30	896	47	4.53	927	49	4.78	957	50	5.03	986	45	5.29
1013 46 5.52 1040 47 5.75 1065 48 5.97																					
7.5 HP Standard Drive																					
1148 52 4.46 1177 53 4.69 1204 55 4.90																					
1185 54 5.05 1212 55 5.28 1219 55 5.67																					
1228 56 6.07																					
1236 56 6.48																					
1250 57 6.96																					
1264 57 7.44																					
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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 49. 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			

Table 50. Standard fan motors - standard air handlers

Model	Motor	Motor Sheave Turns Open	Nominal RPM	Required Field Supplied Components		
				Motor Sheave	Blower Sheave	Belt
TWE060	Standard Motor .75 HP	0	1071	N/A	N/A	N/A
		1	1000			
		2	928			
		3	857			
		4	785			
		5	714			
TWE072	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			
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			



Performance Data

Table 50. Standard fan motors - standard air handlers (continued)

Model	Motor	Motor Sheave Turns Open	Nominal RPM	Required Field Supplied Components		
				Motor Sheave	Blower Sheave	Belt
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			

Table 51. High static fan motors - standard air handlers

Model	Motor	Motor Sheave Turns Open	Nominal RPM	Required Field Supplied Components		
				Motor Sheave	Blower Sheave	Belt
TWE060	High Static Motor 1.5 HP	0	1346	N/A	N/A	N/A
		1	1279			
		2	1212			
		3	1144			
		4	1077			
		5	1010			
TWE072	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			
TWE150	High Static Motor 3 HP	0	913	N/A	N/A	N/A
		1	862			
		2	806			
		3	749			
		4	693			
		5	659			
TWE150	High Static Motor with Field Supplied Components 2 HP	0	1094	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
		1	1039			
		2	991			
		3	942			
		4	893			
		5	820			

Table 51. 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
TWE180	High Static Motor 5 HP	0	1024	N/A	N/A	N/A
		1	989			
		2	953			
		3	918			
		4	882			
		5	847			
		6	811			
TWE180	High Static Motor with Field Supplied Components 5 HP	0	1217	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
		1	1175			
		2	1118			
		3	1062			
		4	1006			
		5	964			
		6	964			
TWE240	Standard Motor with Field Supplied Components 5 HP	0	1091	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
		1	1053			
		2	1015			
		3	978			
		4	940			
		5	902			
		6	864			

Table 52. 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
TWE072	Ultra High Static Motor 3 HP	0	1346	N/A	N/A	N/A
		1	1241			
		2	1136			
		3	1030			
		4	925			
		5	820			
		—	—			
TWE090	Ultra High Static Motor 3 HP	0	1346	N/A	N/A	N/A
		1	1241			
		2	1136			
		3	1030			
		4	925			
		5	820			
		—	—			
TWE150	Ultra High Static Motor 5 HP	0	1217	N/A	N/A	N/A
		1	1175			
		2	1133			
		3	1091			
		4	1048			
		5	1006			
		6	964			
TWE240	Ultra High Static Motor 7.5 HP	0	1294	N/A	N/A	N/A
		1	1243			
		2	1191			
		3	1140			
		4	1089			
		5	1037			
		6	986			



Performance Data

Table 53. 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	TWE0604*A/B	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	TWE0724*B	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	TWE0904*A/B	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
10	TWE1204*A/B	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	TWE1504*B	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	TWE1804*B	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	TWE2404*B	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

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 54. Electric heat discharge plenum and grille airflow (CFM)—standard air handler

Tons	Unit Model No.	Electric Heater Model No.	Airflow (CFM)	
			Minimum	Maximum
5	TWE06041A, B	BAYHTRL117*	2000	2400
	TWE06043A, B	BAYHTRL315*	2000	2400
	TWE06044A, B	BAYHTRL415*	2000	2400
6	TWE07243B	BAYHTRL315*	2000	2880
	TWE07243B	BAYHTRL325*	2000	2880
	TWE07244B	BAYHTRL415*	2000	2880
	TWE07244B	BAYHTRL425*	2000	2880

Table 54. Electric heat discharge plenum and grille airflow (CFM)—standard air handler (continued)

Tons	Unit Model No.	Electric Heater Model No.	Airflow (CFM)	
			Minimum	Maximum
7.5	TWE09041A, B	BAYHTRL117*	3000	3600
	TWE09041A, B	BAYHTRL123*	3375	3600
7.5	TWE09043A, B	BAYHTRL315*	2625	3600
	TWE09043A, B	BAYHTRL325*	3000	3600
	TWE09044A, B	BAYHTRL415*	2625	3600
	TWE09044A, B	BAYHTRL425*	2625	3600
10	TWE12041A, B	BAYHTRL117*	3500	4800
	TWE12041A, B	BAYHTRL123*	4000	4800
10	TWE12043A, B	BAYHTRL315*	4000	4800
	TWE12043A, B	BAYHTRL325*	3500	4800
	TWE12044A, 4B	BAYHTRL415*	3500	4800
	TWE12044A, 4B	BAYHTRL425*	3500	4800
12.5	TWE15043B	BAYHTRM330*	5250	6000
	TWE15044B	BAYHTRM430*	5250	6000
15	TWE18043B	BAYHTRM330*	5250	7200
	TWE18044B	BAYHTRM430*	5250	7200
20	TWE24043B	BAYHTRM330*	7000	9600
	TWE24044B	BAYHTRM430*	7000	9600

Notes:

- On TWE07243B, TWE09043A/B, TWE12043A/B, TWE15043B and TWE18043B, standard air handler is field wired for 460V. Use with BAYHTR*4** only. See product catalog for more information.
- SZVAV/2-Speed VFD available for 6–25 ton only.

Table 55. Static pressure drop through accessories (inches of water column) — standard 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	TWE0604*A/B	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	TWE0724*B	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	TWE0904*A/B	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	TWE1204*A/B	3200	0.07	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	TWE1504*B	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	TWE1804*B	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	TWE2404*B	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

Notes:

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



Performance Data

Table 56. Auxiliary electric heat capacity - standard 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
TWE06041A, TWE06041B	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
TWE06043A, TWE06044A, TWE0604WA, TWE06043B, TWE06044B	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
TWE07243B, TWE07244B, TWE0724WB	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
	34.88	2	19.92	67987	14.96	51058	34.88	119045
TWE09041A, TWE09041B	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
	28.80	2	17.28	58977	11.52	39318	28.80	98295
TWE09043A, TWE09043B, TWE0904WA, TWE0904WB	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
	34.88	2	19.92	67987	14.96	51058	34.88	119045
TWE09043B, TWE09044B, TWE0904WB	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
	34.88	2	19.92	67987	14.96	51058	34.88	119045
TWE12041A, TWE12041B	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
	28.80	2	17.28	58977	11.52	39318	28.80	98295
TWE12043A, TWE1204WA, TWE12044A, TWE12044B, TWE12043B, TWE1204WB	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
	34.88	2	19.92	67987	14.96	51058	34.88	119045
TWE15043B, TWE1504WB	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
TWE15043B, TWE15044B, TWE1504WB	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
TWE18043B, TWE1804WB	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 56. Auxiliary electric heat capacity - standard 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
TWE18043B, TWE18044B, TWE1804WB	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
TWE2404*B	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:

- On TWE07243B, TWE09043A/B, TWE12043A/B, TWE15043B and TWE18043B standard air handlers are field converted to 460V.
- Heaters are rated at 240V, 480V, and 600V. For other than rated voltage, capacity = (Voltage/Related Voltage)² x Rated Capacity.
- SZVAV/2-Speed VFD available for 6–25 ton only.

Table 57. 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
TWE0604*-A, TWE0604*-B	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
TWE072*B	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
TWE0904*-A, TWE0904*-B	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



Performance Data

Table 57. 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
TWE1204*- A, TWE1204*- B	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
TWE1504*- B	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	376	111	386	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
TWE1804*- B	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
TWE2404*- B	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

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 58. 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	TWE0604*A, TWE0604*B	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	TWE072*B	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	TWE0904*A, TWE0904*B	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	TWE1204*A, TWE1204*B	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	TWE1504*B	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 58. 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	TWE1804*B	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	88.4
			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	TWE2404*B	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
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	TWE0604*A, TWE0604*B	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
6	TWE072*B	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

Table 58. 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
7.5	TWE0904*A, TWE0904*B	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	98.0	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	TWE1204*A, TWE1204*B	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	TWE1504*B	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	TWE1804*B	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
20	TWE2404*B	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

Performance Data

Table 58. 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
5	TWE0604*A, TWE0604*B	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	TWE072*B	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
7.5	TWE0904*A, TWE0904*B	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
		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	TWE1204*A, TWE1204*B	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	TWE1504*B	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

Table 58. 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
15	TWE1804*B	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	TWE2404*B	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

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 59. 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	TWE0604*A/B	0.02	0.07	0.15	0.26	0.40	0.56	0.75	0.97	1.22	1.49	1.78	-	-	-	-	-	-	-	
6	TWE0724*B	-	-	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	TWE0904*A,B	-	-	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	TWE1204*A,B	-	-	-	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	TWE1504*B	-	-	-	-	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	TWE1804*B	-	-	-	-	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	TWE2404*B	-	-	-	-	-	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	TWE0604*A/B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6	TWE0724*B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7.5	TWE0904*A,B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10	TWE1204*A,B	1.21	1.32	1.44	1.57	1.70	1.84	-	-	-	-	-	-	-	-	-	-	-	-	
12.5	TWE1504*B	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	TWE1804*B	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	TWE2404*B	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.

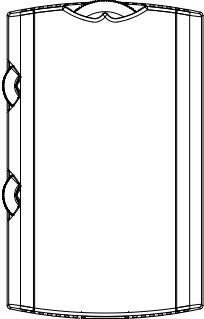


Controls

ReliaTel

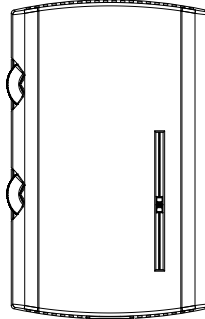
Zone Sensors are the building occupant's comfort control devices. Zone sensors are required for SZVAV applications. The following zone sensor options are available for units with ReliaTel control.

**Manual Changeover
(BAYSENS106*)**



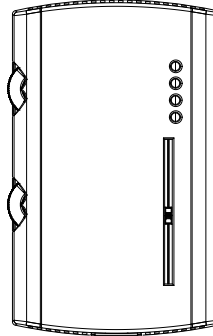
Heat, Cool or Off System Switch.
Fan Auto or Off Switch. One
temperature setpoint lever.

**Manual/Automatic
Changeover (BAYSENS108*)**



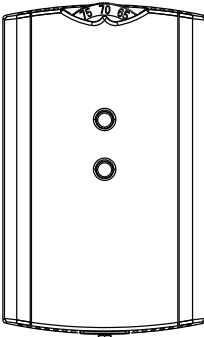
Auto, Heat, Cool or Off System
Switch. Fan Auto or Off Switch.
Two temperature setpoint levers.

**Manual/Automatic
Changeover (BAYSENS110*)**



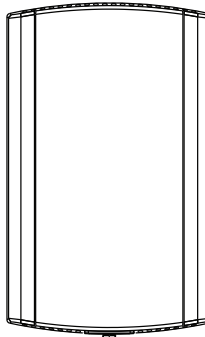
Auto, Heat, Cool or Off System
Switch. Fan Auto or Off Switch.
Two temperature setpoint levers.
Status Indication LED lights,
System On, Heat, Cool, or
Service.

**Integrated Comfort™ System
(BAYSENS074*)**



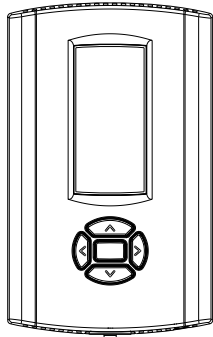
Sensor(s) available with optional
temperature adjustment and
override buttons to provide
central control through a Trane
Integrated Comfort™ system.

**Remote Sensor
(BAYSENS077*)**



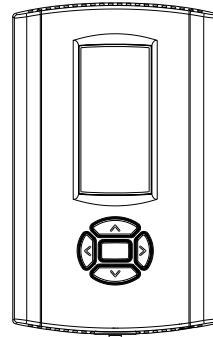
Sensor(s) available for all zone
sensors to provide remote
sensing capabilities.

**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*)**

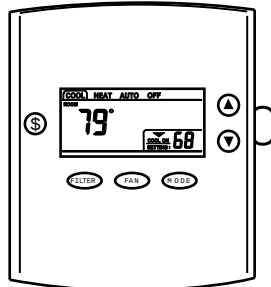


Auto or manual changeover with
seven-day programming.
Keyboard selection of Heat, Cool,
Fan, Auto, EM Heat or On. All
sensors have System On, Heat,
Cool, Service LED/ indicators as
standard. Night Setback Sensors
have one (1) Occupied, one (1)
Un-occupied, and one (1)
Override program per day.

Electromechanical

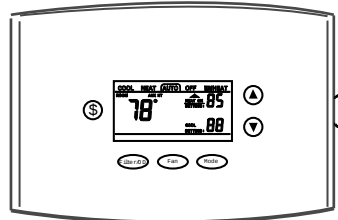
Non-Programmable Thermostats

TCONT200* (1H/1C)**



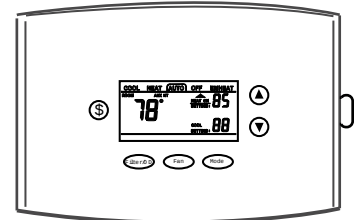
Auto-changeover Backlit Display & Keys Filter Reminder Keypad Lock

TCONT401* (2H/1C)**



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

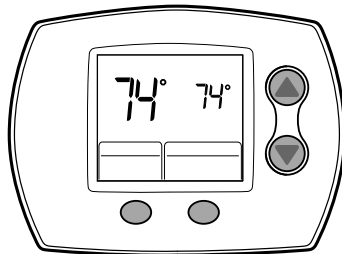
TCONT402* (3H/2C)**



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

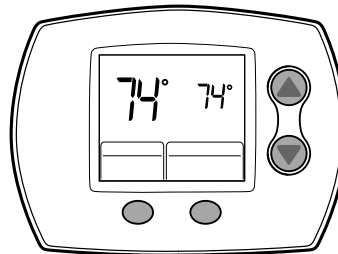
Programmable Thermostats

TCONT600* (1H/1C)**



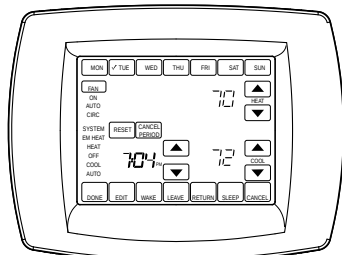
5/2 or 5/1/1 Programming Actual and Setpoint temps displayed simultaneously

TCONT602* (2H/2C)**



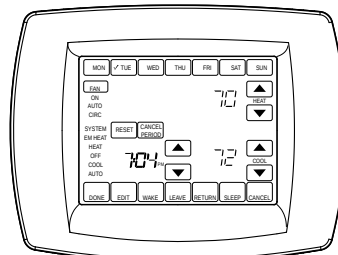
5/2 or 5/1/1 Programming Actual and Setpoint temps displayed simultaneously

TCONT800* (1H/1C)**



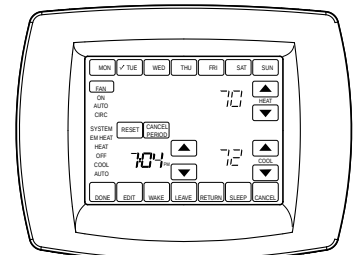
Interactive touchscreen Large display Real time clock

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

Heat Pump Condenser

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

Tons	Unit Model Number	Compressor Motors						Condenser Fan Motor				
		Volts	Phase	Compressor 1		Compressor 2		No.	Volts	Phase	Amps	
				Amps		Amps					FLA (Ea.)	LRA (Ea.)
				RLA	LRA	RLA	LRA					
6	TWA07243A	208-230	3	22.4	149	N/A	N/A	1	208-230	1	3.1	8.1
	TWA07244A	460	3	10.6	75	N/A	N/A	1	460	1	1.6	3.8
	TWA0724KA	380	3	11.3	88	N/A	N/A	1	380	1	1.9	4.9
	TWA0724WA	575	3	7.7	54	N/A	N/A	1	575	1	1.2	3.0
6	TWA07243D	208-230	3	10.4	73	10.4	73	1	208-230	1	3.1	8.1
	TWA07244D	460	3	5.8	38	5.8	38	1	460	1	1.6	3.8
	TWA0724WD	575	3	3.8	37	3.8	37	1	575	1	1.2	3.0
7.5	TWA09043A	208-230	3	25.0	164	N/A	N/A	1	208-230	1	3.1	8.1
	TWA09044A	460	3	12.8	100	N/A	N/A	1	460	1	1.6	3.8
	TWA0904KA	380	3	12.5	94	N/A	N/A	1	380	1	1.9	4.9
	TWA0904WA	575	3	9.6	78	N/A	N/A	1	575	1	1.2	3.0
7.5	TWA09043D	208-230	3	13.1	83	13.1	83	1	208-230	1	3.1	8.1
	TWA09044D	460	3	6.1	41	6.1	41	1	460	1	1.6	3.8
	TWA0904KD	380	3	7.6	52	7.6	52	1	380	1	1.9	4.9
	TWA0904WD	575	3	4.4	33	4.4	33	1	575	1	1.2	3.0
10	TWA12043A	208-230	3	33.0	267	N/A	N/A	1	208-230	1	5.0	14.4
	TWA12044A	460	3	17.8	142	N/A	N/A	1	460	1	2.5	5.8
	TWA1204KA	380	3	25.1	160	N/A	N/A	1	380	1	3.4	7.8
	TWA1204WA	575	3	15.8	103	N/A	N/A	1	575	1	2.0	5.1
10	TWA12043D	208-230	3	16.0	110	16.0	110	1	208-230	1	5.0	14.4
	TWA12044D	460	3	7.8	52	7.8	52	1	460	1	2.5	5.8
	TWA1204KD	380	3	8.5	66	8.5	66	1	380	1	3.4	7.8
	TWA1204WD	575	3	5.7	39	5.7	39	1	575	1	2.0	5.1
15	TWA18043D	208-230	3	25.0	164	25.0	164	2	208-230	1	5.0	14.4
	TWA18044D	460	3	12.2	100	12.2	100	2	460	1	2.5	5.8
	TWA1804KD	380	3	13.9	94	13.9	94	2	380	1	3.4	7.8
	TWA1804WD	575	3	9.2	78	9.2	78	2	575	1	2.0	5.1
20	TWA24043D	208-230	3	33.8	239	33.8	239	2	208-230	1	5.0	14.4
	TWA24044D	460	3	18.0	125	18.0	125	2	460	1	2.5	5.8
	TWA2404KD	380	3	24.4	145	24.4	145	2	380	1	3.4	7.8
	TWA2404WD	575	3	13.7	80	13.7	80	2	575	1	2.0	5.1

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

Table 61. Unit wiring — heat pumps — 60Hz

Tons	Unit Model Number	Unit Operating Voltage Range	Minimum Circuit Ampacity	Maximum Fuse or HACR Circuit Breaker Size
6	TWA07243A	187-253	31	50
	TWA07244A	414-506	15	25
	TWA0724KA	342-418	16	25
	TWA0724WA	518-632	11	15
6	TWA07243D	187-253	27	35
	TWA07244D	414-506	15	20
	TWA0724WD	518-632	10	15
7.5	TWA09043A	187-253	34	50
	TWA09044A	414-506	18	30
	TWA0904KA	342-418	18	30
	TWA0904WA	518-632	13	20
7.5	TWA09043D	187-253	33	45
	TWA09044D	414-506	15	20
	TWA0904KD	342-418	19	25
	TWA0904WD	518-632	11	15
10	TWA12043A	187-253	46	70
	TWA12044A	414-506	25	40
	TWA1204KA	342-418	35	50
	TWA1204WA	518-632	22	35
10	TWA12043D	187-253	41	50
	TWA12044D	414-506	20	25
	TWA1204KD	342-418	23	30
	TWA1204WD	518-632	15	20
15	TWA18043D	187-253	66	90
	TWA18044D	414-506	32	40
	TWA1804KD	342-418	38	50
	TWA1804WD	518-632	25	30
20	TWA24043D	187-253	86	110
	TWA24044D	414-506	46	60
	TWA2404KD	342-418	62	80
	TWA2404WD	518-632	35	45

Note: HACR type circuit breaker per NEC.

Air Handler (Standard and 2-Speed VFD)

Table 62. 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



Electrical Data

Table 63. Electrical characteristics — 5–20 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	TWE06041A/B	1	208-230	1	0.75	6.0	41.0	8	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE06043A/B	1	208-230	3	0.75	2.6	16.0	3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE0604KA	1	380	3	0.75	2.9	8.0	4	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE06044A/B	1	460	3	0.75	1.3	8.0	2	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE0604WA	1	575	3	0.75	1.3	6.0	2	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	TWE07243B	1	208-230	3	1.5	5.3	34.0	7	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE0724KB	1	380	3	1.5	3.0	20.0	4	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE07243B	1	460	3	1.5	2.5	17.0	3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE0724WB	1	575	3	1.5	1.7	14.0	2	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7.5	TWE09041A/B	1	208-230	1	1.5	6.7	31.0	8	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE09043A/B	1	208-230	3	1.5	5.3	34.0	7	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE0904KA/B	1	380	3	1.5	3.0	20.0	4	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE09043A/B	1	460	3	1.5	2.5	17.0	3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE0904WA/B	1	575	3	1.5	1.7	14.0	2	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10	TWE12041A/B	1	208-230	1	2	8.5	64.0	11	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE12043A/B	1	208-230	3	2	7.0	19.0	9	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE1204KA/B	1	380	3	2	3.3	28.0	4	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE12043A/B	1	460	3	2	3.3	19.0	4	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE1204WA/B	1	575	3	2	2.3	16.0	3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12.5	TWE15043B	1	208-230	3	2	5.5	23.0	7	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE1504KB	1	380	3	2	3.3	28.0	4	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE15043B	1	460	3	2	2.8	23.0	3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE1504WB	1	575	3	2	2.2	18.0	3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
15	TWE18043B	1	208-230	3	3	9.4	75.0	12	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE1804KB	1	380	3	3	5.6	48.0	7	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE18043B	1	460	3	3	4.6	39.0	6	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE1804WB	1	575	3	3	3.4	25.0	4	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20	TWE24043B	1	208-230	3	5	14.0	91.0	18	30	1	208-230	3	3	9.4	75.0	12	20
	TWE2404KB	1	380	3	5	8.1	64.0	10	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE24044B	1	460	3	5	6.3	45.0	8	15	1	460	3	3	4.6	39.0	6	15
	TWE2404WB	1	575	3	5	5.3	36.0	7	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 64. Electrical characteristics — 5–20 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	TWE06041A/B	1	208-230	1	1.5	6.7	30.7	8	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE06043A/B	1	208-230	3	1.5	5.3	34.3	7	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE0604KA	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
	TWE06044A/B	1	460	3	1.5	2.5	17.0	3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE0604WA	1	575	3	1.5	1.7	14.0	2	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	TWE07243B	1	208-230	3	2	7.0	19.0	9	15	1	208-230	3	3	9.4	74.9	12	20
	TWE0724KB	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
	TWE07243B	1	460	3	2	3.3	19.0	4	15	1	460	3	3	4.6	39.3	6	15
	TWE0724WB	1	575	3	2	2.3	15.6	3	15	1	575	3	3	3.4	24.6	4	15
7.5	TWE09041A/B	1	208-230	1	2	8.5	64.1	11	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE09043A/B	1	208-230	3	2	7.0	19.0	9	15	1	208-230	3	3	9.4	74.9	12	20
	TWE0904KA/B	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
	TWE09043A/B	1	460	3	2	3.3	19.0	4	15	1	460	3	3	4.6	39.3	6	15
	TWE0904WA/B	1	575	3	2	2.3	15.6	3	15	1	575	3	3	3.4	24.6	4	15
10	TWE12041A/B	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
	TWE12043A/B	1	208-230	3	3	9.4	74.9	12	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE1204KA/B	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
	TWE12043A/B	1	460	3	3	4.6	39.3	6	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE1204WA/B	1	575	3	3	3.4	24.6	4	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12.5	TWE15043B	1	208-230	3	3	9.4	74.9	12	20	1	208-230	3	5	14.0	90.8	18	30
	TWE1504KB	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
	TWE15043B	1	460	3	3	4.6	39.3	6	15	1	460	3	5	6.3	44.8	8	15
	TWE1504WB	1	575	3	3	3.4	24.6	4	15	1	575	3	5	5.3	36.2	7	15
15	TWE18043B	1	208-230	3	5	14.0	90.8	18	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE1804KB	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
	TWE18043B	1	460	3	5	6.3	44.8	8	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE1804WB	1	575	3	5	5.3	36.2	7	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20	TWE24043B	1	208-230	3	7.5	19.6	150.0	25	40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE2404KB	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
	TWE24044B	1	460	3	7.5	8.9	75.0	11	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE2404WB	1	575	3	7.5	7.1	60.0	9	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 65. Electrical characteristics — standard and oversized motors — 6–20 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	TWE07243B	1	208-230	3	2	6.2	43.4	8	15	1	208-230	3	3	9.4	71.0	12	20
	TWE07244B	1	460	3	2	2.9	24.0	4	15	1	460	3	3	4.6	35.5	6	15
	TWE0724WB	1	575	3	2	2.2	20.6	3	15	1	575	3	3	3.7	28.4	5	15
7.5	TWE09043B	1	208-230	3	2	6.2	43.4	8	15	1	208-230	3	3	9.4	71.0	12	20
	TWE09044B	1	460	3	2	2.9	24.0	4	15	1	460	3	3	4.6	35.5	6	15
	TWE0904WB	1	575	3	2	2.2	20.6	3	15	1	575	3	3	3.7	28.4	5	15
10	TWE12043A/B	1	208-230	3	2	6.2	43.4	8	15	1	208-230	3	3	9.4	71.0	12	20
	TWE12044A/B	1	460	3	2	2.9	24.0	4	15	1	460	3	3	4.6	35.5	6	15
	TWE1204WA/B	1	575	3	2	2.2	20.6	3	15	1	575	3	3	3.7	28.4	5	15



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Table 65. Electrical characteristics — standard and oversized motors — 6–20 ton SZVAV and 2-Speed VFD air handler — 60 Hz (continued)

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		
12.5	TWE15043B	1	208-230	3	2	6.2	43.4	8	15	1	208-230	3	5	13.4	99.5	17	30
	TWE15044B	1	460	3	2	2.9	24.0	4	15	1	460	3	5	6.3	110.0	8	15
	TWE1504WB	1	575	3	2	2.2	20.6	3	15	1	575	3	5	5.1	44.0	6	15
15	TWE18043B	1	208-230	3	3	9.4	71.0	12	20	1	208-230	3	5	13.4	99.5	17	30
	TWE18044B	1	460	3	3	4.6	35.5	6	15	1	460	3	5	6.3	110.0	8	15
	TWE1804WB	1	575	3	3	3.7	28.4	5	15	1	575	3	5	5.1	44.0	6	15
20	TWE24043B	1	208-230	3	5	13.4	99.5	17	30	1	208-230	3	7.5	20.0	113.4	25	40
	TWE24044B	1	460	3	5	6.3	110.0	8	15	1	460	3	7.5	8.8	63.0	11	15
	TWE2404WB	1	575	3	5	5.1	44.0	6	15	1	575	3	7.5	7.1	50.4	9	15

Table 66. Unit wiring with electric heat (single point connection) — 5-20 ton standard air handlers — 60 Hz

Tons	Used With	Heater Model Number	Heater kW Rating	Unit Power Supply	Control Stages	Standard Evap Motor		High Static Evap Motor		Ultra High Static Evap Motor		Low Static Evap Motor	
						MCA	Max Fuse or HACR Circuit Breaker Size	MCA	Max Fuse or HACR Circuit Breaker Size	MCA	Max Fuse or HACR Circuit Breaker Size	MCA	Max Fuse or HACR Circuit Breaker Size
5	TWE06041A/B	BAYHTRL106*	4.33	208/1/60	1	34	35	34	35	N/A	N/A	N/A	N/A
		BAYHTRL112*	8.65		1	59	60	60	70	N/A	N/A	N/A	N/A
		BAYHTRL117*	12.98		1	86	90	86	90	N/A	N/A	N/A	N/A
		BAYHTRL123*	17.31		2	111	125	112	125	N/A	N/A	N/A	N/A
5	TWE06041A/B	BAYHTRL106*	5.76	230/1/60	1	38	40	38	40	N/A	N/A	N/A	N/A
		BAYHTRL112*	11.52		1	68	70	68	70	N/A	N/A	N/A	N/A
		BAYHTRL117*	17.28		1	98	100	98	100	N/A	N/A	N/A	N/A
		BAYHTRL123*	23.04		2	128	150	128	150	N/A	N/A	N/A	N/A
5	TWE06043A/B	BAYHTRL305*	3.76	208/3/60	1	16	20	20	20	N/A	N/A	N/A	N/A
		BAYHTRL310*	7.48		1	29	30	33	35	N/A	N/A	N/A	N/A
		BAYHTRL315*	11.24		1	42	45	46	50	N/A	N/A	N/A	N/A
		BAYHTRL325*	18.72		2	68	70	72	80	N/A	N/A	N/A	N/A
5	TWE06043A/B	BAYHTRL305*	5	230/3/60	1	18	20	22	25	N/A	N/A	N/A	N/A
		BAYHTRL310*	9.96		1	33	35	37	40	N/A	N/A	N/A	N/A
		BAYHTRL315*	14.96		1	48	50	52	60	N/A	N/A	N/A	N/A
		BAYHTRL325*	24.92		2	78	80	82	90	N/A	N/A	N/A	N/A
5	TWE06044A/B	BAYHTRL405*	5	460/3/60	1	9	15	11	15	N/A	N/A	N/A	N/A
		BAYHTRL410*	9.96		1	17	20	18	20	N/A	N/A	N/A	N/A
		BAYHTRL415*	14.96		1	24	25	26	30	N/A	N/A	N/A	N/A
		BAYHTRL425*	24.92		2	39	40	41	45	N/A	N/A	N/A	N/A
5	TWE0604WA	BAYHTRLW05*	5	575/3/60	1	8	15	8	15	N/A	N/A	N/A	N/A
		BAYHTRLW10*	9.96		1	14	15	14	15	N/A	N/A	N/A	N/A
		BAYHTRLW15*	14.96		1	20	20	20	25	N/A	N/A	N/A	N/A
		BAYHTRLW25*	24.92		2	32	35	32	35	N/A	N/A	N/A	N/A
6	TWE07243B	BAYHTRL305*	3.76	208/3/60	1	20	20	22	25	25	30	N/A	N/A
		BAYHTRL310*	7.48		1	33	35	35	35	38	40	N/A	N/A
		BAYHTRL315*	11.24		1	46	50	48	50	51	60	N/A	N/A
		BAYHTRL325*	18.72		2	72	80	74	80	77	80	N/A	N/A
		BAYHTRL335*	26.2		2	98	100	100	100	103	110	N/A	N/A

Table 66. Unit wiring with electric heat (single point connection) — 5-20 ton standard air handlers — 60 Hz (continued)

Tons	Used With	Heater Model Number	Heater kW Rating	Unit Power Supply	Control Stages	Standard Evap Motor		High Static Evap Motor		Ultra High Static Evap Motor		Low Static Evap Motor	
						MCA	Max Fuse or HACR Circuit Breaker Size	MCA	Max Fuse or HACR Circuit Breaker Size	MCA	Max Fuse or HACR Circuit Breaker Size	MCA	Max Fuse or HACR Circuit Breaker Size
6	TWE07243B	BAYHTRL305*	5.00	230/3/60	1	22	25	24	25	27	30	N/A	N/A
		BAYHTRL310*	9.96		1	37	40	39	40	42	45	N/A	N/A
		BAYHTRL315*	14.96		1	52	60	54	60	57	60	N/A	N/A
		BAYHTRL325*	24.92		2	82	90	84	90	87	90	N/A	N/A
		BAYHTRL335*	34.88		2	112	125	114	125	117	125	N/A	N/A
6	TWE07243B	BAYHTRL405*	5.00	460/3/60	1	11	15	12	15	13	15	N/A	N/A
		BAYHTRL410*	9.96		1	18	20	19	20	21	25	N/A	N/A
		BAYHTRL415*	14.96		1	26	30	27	30	28	30	N/A	N/A
		BAYHTRL425*	24.92		2	41	45	42	45	43	45	N/A	N/A
		BAYHTRL435*	34.88		2	56	60	57	60	58	60	N/A	N/A
6	TWE0724WB	BAYHTRLW05*	5.00	575/3/60	1	8	15	9	15	10	15	N/A	N/A
		BAYHTRLW10*	9.96		1	14	15	15	15	16	20	N/A	N/A
		BAYHTRLW15*	14.96		1	20	25	21	25	22	25	N/A	N/A
		BAYHTRLW25*	24.92		2	32	35	33	35	34	35	N/A	N/A
		BAYHTRLW35*	34.88		2	44	45	45	45	46	50	N/A	N/A
7.5	TWE09041A/B	BAYHTRL106*	4.33	208/1/60	1	34	35	37	40	N/A	N/A	N/A	N/A
		BAYHTRL112*	8.65		1	60	70	63	70	N/A	N/A	N/A	N/A
		BAYHTRL117*	12.98		1	86	90	89	90	N/A	N/A	N/A	N/A
		BAYHTRL123*	17.31		2	112	125	115	125	N/A	N/A	N/A	N/A
		BAYHTRL129*	21.63		2	138	150	141	150	N/A	N/A	N/A	N/A
7.5	TWE09041A/B	BAYHTRL106*	5.76	230/1/60	1	38	40	41	45	N/A	N/A	N/A	N/A
		BAYHTRL112*	11.52		1	68	70	71	80	N/A	N/A	N/A	N/A
		BAYHTRL117*	17.28		1	98	100	101	110	N/A	N/A	N/A	N/A
		BAYHTRL123*	23.04		2	128	150	131	150	N/A	N/A	N/A	N/A
		BAYHTRL129*	28.8		2	158	175	161	175	N/A	N/A	N/A	N/A
7.5	TWE09043A/B	BAYHTRL305*	3.76	208/3/60	1	20	20	22	25	25	30	N/A	N/A
		BAYHTRL310*	7.48		1	33	35	35	35	38	40	N/A	N/A
		BAYHTRL315*	11.24		1	46	50	48	50	51	60	N/A	N/A
		BAYHTRL325*	18.72		2	72	80	74	80	77	80	N/A	N/A
		BAYHTRL335*	26.2		2	98	100	100	100	103	110	N/A	N/A
7.5	TWE09043A/B	BAYHTRL305*	5.00	230/3/60	1	22	25	24	25	27	30	N/A	N/A
		BAYHTRL310*	9.96		1	37	40	39	40	42	45	N/A	N/A
		BAYHTRL315*	14.96		1	52	60	54	60	57	60	N/A	N/A
		BAYHTRL325*	24.92		2	82	90	84	90	87	90	N/A	N/A
		BAYHTRL335*	34.88		2	112	125	114	125	117	125	N/A	N/A
7.5	TWE09043A/B	BAYHTRL405*	5.00	460/3/60	1	11	15	12	15	13	15	N/A	N/A
		BAYHTRL410*	9.96		1	18	20	19	20	21	25	N/A	N/A
		BAYHTRL415*	14.96		1	26	30	27	30	28	30	N/A	N/A
		BAYHTRL425*	24.92		2	41	45	42	45	43	45	N/A	N/A
		BAYHTRL435*	34.88		2	56	60	57	60	58	60	N/A	N/A



Electrical Data

Table 66. Unit wiring with electric heat (single point connection) — 5-20 ton standard air handlers — 60 Hz (continued)

Tons	Used With	Heater Model Number	Heater kW Rating	Unit Power Supply	Control Stages	Standard Evap Motor		High Static Evap Motor		Ultra High Static Evap Motor		Low Static Evap Motor	
						MCA	Max Fuse or HACR Circuit Breaker Size	MCA	Max Fuse or HACR Circuit Breaker Size	MCA	Max Fuse or HACR Circuit Breaker Size	MCA	Max Fuse or HACR Circuit Breaker Size
7.5	TWE0904WA/B	BAYHTRLW05*	5.00	575/3/60	1	8	15	9	15	10	15	N/A	N/A
		BAYHTRLW10*	9.96		1	14	15	15	15	16	20	N/A	N/A
		BAYHTRLW15*	14.96		1	20	25	21	25	22	25	N/A	N/A
		BAYHTRLW25*	24.92		2	32	35	33	35	34	35	N/A	N/A
		BAYHTRLW35*	34.88		2	44	45	45	45	46	50	N/A	N/A
10	TWE12041A/B	BAYHTRL106*	4.33	208/1/60	1	37	40	N/A	N/A	N/A	N/A	N/A	N/A
		BAYHTRL112*	8.65		1	63	70	N/A	N/A	N/A	N/A	N/A	N/A
		BAYHTRL117*	12.98		1	89	90	N/A	N/A	N/A	N/A	N/A	N/A
		BAYHTRL123*	17.31		2	115	125	N/A	N/A	N/A	N/A	N/A	N/A
		BAYHTRL129*	21.63		2	141	150	N/A	N/A	N/A	N/A	N/A	N/A
10	TWE12041A/B	BAYHTRL106*	5.76	230/1/60	1	41	45	N/A	N/A	N/A	N/A	N/A	N/A
		BAYHTRL112*	11.52		1	71	80	N/A	N/A	N/A	N/A	N/A	N/A
		BAYHTRL117*	17.28		1	101	110	N/A	N/A	N/A	N/A	N/A	N/A
		BAYHTRL123*	23.04		2	131	150	N/A	N/A	N/A	N/A	N/A	N/A
		BAYHTRL129*	28.8		2	161	175	N/A	N/A	N/A	N/A	N/A	N/A
10	TWE12043A/B	BAYHTRL305*	3.76	208/3/60	1	22	25	25	30	N/A	N/A	N/A	N/A
		BAYHTRL310*	7.48		1	35	35	38	40	N/A	N/A	N/A	N/A
		BAYHTRL315*	11.24		1	48	50	51	60	N/A	N/A	N/A	N/A
		BAYHTRL325*	18.72		2	74	80	77	80	N/A	N/A	N/A	N/A
		BAYHTRL335*	26.2		2	100	100	103	110	N/A	N/A	N/A	N/A
10	TWE12043A/B	BAYHTRL305*	5.00	230/3/60	1	24	25	27	30	N/A	N/A	N/A	N/A
		BAYHTRL310*	9.96		1	39	40	42	45	N/A	N/A	N/A	N/A
		BAYHTRL315*	14.96		1	54	60	57	60	N/A	N/A	N/A	N/A
		BAYHTRL325*	24.92		2	84	90	87	90	N/A	N/A	N/A	N/A
		BAYHTRL335*	34.88		2	114	125	117	125	N/A	N/A	N/A	N/A
10	TWE12043A/B	BAYHTRL405*	5.00	460/3/60	1	12	15	13	15	N/A	N/A	N/A	N/A
		BAYHTRL410*	9.96		1	19	20	21	25	N/A	N/A	N/A	N/A
		BAYHTRL415*	14.96		1	27	30	28	30	N/A	N/A	N/A	N/A
		BAYHTRL425*	24.92		2	42	45	43	45	N/A	N/A	N/A	N/A
		BAYHTRL435*	34.88		2	57	60	58	60	N/A	N/A	N/A	N/A
10	TWE1204WA/B	BAYHTRLW05*	5.00	575/3/60	1	9	15	10	15	N/A	N/A	N/A	N/A
		BAYHTRLW10*	9.96		1	15	15	16	20	N/A	N/A	N/A	N/A
		BAYHTRLW15*	14.96		1	21	25	22	25	N/A	N/A	N/A	N/A
		BAYHTRLW25*	24.92		2	33	35	34	35	N/A	N/A	N/A	N/A
		BAYHTRLW35*	34.88		2	45	45	46	50	N/A	N/A	N/A	N/A
12.5	TWE15043B	BAYHTRM310A	7.51	208/3/60	1	33	35	38	40	44	50	N/A	N/A
		BAYHTRM320A	14.96		1	59	60	64	70	69	70	N/A	N/A
		BAYHTRM330A	22.47		2	85	90	90	90	95	100	N/A	N/A
		BAYHTRM350A	37.44		2	137	150	142	150	147	150	N/A	N/A
12.5	TWE15043B	BAYHTRM310A	10	230/3/60	1	37	40	42	45	48	50	N/A	N/A
		BAYHTRM320A	19.92		1	67	70	72	80	77	80	N/A	N/A
		BAYHTRM330A	29.92		2	97	100	102	110	107	110	N/A	N/A
		BAYHTRM350A	49.84		2	157	175	162	175	167	175	N/A	N/A

Table 66. Unit wiring with electric heat (single point connection) — 5-20 ton standard air handlers — 60 Hz (continued)

Tons	Used With	Heater Model Number	Heater kW Rating	Unit Power Supply	Control Stages	Standard Evap Motor		High Static Evap Motor		Ultra High Static Evap Motor		Low Static Evap Motor	
						MCA	Max Fuse or HACR Circuit Breaker Size	MCA	Max Fuse or HACR Circuit Breaker Size	MCA	Max Fuse or HACR Circuit Breaker Size	MCA	Max Fuse or HACR Circuit Breaker Size
12.5	TWE15043B	BAYHTRM410*	10	460/3/60	1	18	20	21	25	23	25	N/A	N/A
		BAYHTRM420*	19.92		1	33	35	36	40	38	40	N/A	N/A
		BAYHTRM430*	29.92		2	48	50	51	60	53	60	N/A	N/A
		BAYHTRM450*	49.84		2	78	80	81	90	83	90	N/A	N/A
12.5	TWE1504WB	BAYHTRMW10*	10	575/3/60	1	15	15	16	20	19	20	N/A	N/A
		BAYHTRMW20*	19.92		1	27	30	28	30	31	35	N/A	N/A
		BAYHTRMW30*	29.92		2	39	40	40	45	43	45	N/A	N/A
		BAYHTRMW50*	49.84		2	63	70	64	70	67	70	N/A	N/A
15	TWE18043B	BAYHTRM310*	7.51	208/3/60	1	38	40	44	50	N/A	N/A	N/A	N/A
		BAYHTRM320*	14.96		1	64	70	69	70	N/A	N/A	N/A	N/A
		BAYHTRM330*	22.47		2	90	90	95	100	N/A	N/A	N/A	N/A
		BAYHTRM350*	37.44		2	142	150	147	150	N/A	N/A	N/A	N/A
15	TWE18043B	BAYHTRM310*	10	230/3/60	1	42	45	48	50	N/A	N/A	N/A	N/A
		BAYHTRM320*	19.92		1	72	80	77	80	N/A	N/A	N/A	N/A
		BAYHTRM330*	29.92		2	102	110	107	110	N/A	N/A	N/A	N/A
		BAYHTRM350*	49.84		2	162	175	167	175	N/A	N/A	N/A	N/A
15	TWE18043B	BAYHTRM410*	10	460/3/60	1	21	25	23	25	N/A	N/A	N/A	N/A
		BAYHTRM420*	19.92		1	36	40	38	40	N/A	N/A	N/A	N/A
		BAYHTRM430*	29.92		2	51	60	53	60	N/A	N/A	N/A	N/A
		BAYHTRM450*	49.84		2	81	90	83	90	N/A	N/A	N/A	N/A
15	TWE1804WB	BAYHTRMW10*	10	575/3/60	1	16	20	19	20	N/A	N/A	N/A	N/A
		BAYHTRMW20*	19.92		1	28	30	31	35	N/A	N/A	N/A	N/A
		BAYHTRMW30*	29.92		2	40	45	43	45	N/A	N/A	N/A	N/A
		BAYHTRMW50*	49.84		2	64	70	67	70	N/A	N/A	N/A	N/A
20	TWE24043B	BAYHTRM310*	7.51	208/3/60	1	44	50	51	60	N/A	N/A	38	40
		BAYHTRM320*	14.96		1	69	70	76	80	N/A	N/A	64	70
		BAYHTRM330*	22.47		2	95	100	102	110	N/A	N/A	90	90
		BAYHTRM350*	37.44		2	147	150	154	175	N/A	N/A	142	150
20	TWE24043B	BAYHTRM310*	10	230/3/60	1	48	50	55	60	N/A	N/A	42	45
		BAYHTRM320*	19.92		1	77	80	84	90	N/A	N/A	72	80
		BAYHTRM330*	29.92		2	107	110	114	125	N/A	N/A	102	110
		BAYHTRM350*	49.84		2	167	175	174	175	N/A	N/A	162	175
20	TWE24044B	BAYHTRM410*	10	460/3/60	1	23	25	26	30	N/A	N/A	21	25
		BAYHTRM420*	19.92		1	38	40	41	45	N/A	N/A	36	40
		BAYHTRM430*	29.92		2	53	60	56	60	N/A	N/A	51	60
		BAYHTRM450*	49.84		2	83	90	86	90	N/A	N/A	81	90
20	TWE2404WB	BAYHTRMW10*	10	575/3/60	1	19	20	21	25	N/A	N/A	N/A	N/A
		BAYHTRMW20*	19.92		1	31	35	33	35	N/A	N/A	N/A	N/A
		BAYHTRMW30*	29.92		2	43	45	45	45	N/A	N/A	N/A	N/A
		BAYHTRMW50*	49.84		2	67	70	69	70	N/A	N/A	N/A	N/A



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Table 67. Unit wiring with electric heat (single point connection) — 6-20 ton SZVAV and 2-Speed VFD air handlers — 60 Hz

Tons	Used With	Heater Model Number	Heater KW Rating	Unit Power Supply	Control Stages	MCA	Maximum Fuse or HACR Circuit Breaker Size
6	TWE07243B****A0, B0	BAYHTRL305*	3.76	208/3/60	1	21	25
		BAYHTRL310*	7.48		1	34	35
		BAYHTRL315*	11.24		1	47	50
		BAYHTRL325*	18.72		2	73	80
		BAYHTRL335*	26.20		2	99	100
6	TWE07243B****A0, B0	BAYHTRL305*	5.00	230/3/60	1	23	25
		BAYHTRL310*	9.96		1	38	40
		BAYHTRL315*	14.96		1	53	60
		BAYHTRL325*	24.92		2	83	90
		BAYHTRL335*	34.88		2	113	125
6	TWE07243B****A4, B4	BAYHTRL305*	3.76	208/3/60	1	25	30
		BAYHTRL310*	7.48		1	38	40
		BAYHTRL315*	11.24		1	51	60
		BAYHTRL325*	18.72		2	77	80
		BAYHTRL335*	26.20		2	103	110
6	TWE07243B****A4, B4	BAYHTRL305*	5.00	230/3/60	1	27	30
		BAYHTRL310*	9.96		1	42	45
		BAYHTRL315*	14.96		1	57	60
		BAYHTRL325*	24.92		2	87	90
		BAYHTRL335*	34.88		2	117	125
6	TWE07244B****A0, B0	BAYHTRL405*	5.00	460/3/60	1	11	15
		BAYHTRL410*	9.96		1	19	20
		BAYHTRL415*	14.96		1	26	30
		BAYHTRL425*	24.92		2	41	45
		BAYHTRL435*	34.88		2	56	60
6	TWE07244B****A4, B4	BAYHTRL405*	5.00	460/3/60	1	13	15
		BAYHTRL410*	9.96		1	21	25
		BAYHTRL415*	14.96		1	28	30
		BAYHTRL425*	24.92		2	43	45
		BAYHTRL435*	34.88		2	58	60
6	TWE0724WB****A0, B0	BAYHTRLW05*	5.00	575/3/60	1	9	15
		BAYHTRLW10*	9.96		1	15	15
		BAYHTRLW15*	14.96		1	21	25
		BAYHTRLW25*	24.92		2	33	35
		BAYHTRLW35*	34.88		2	45	45
6	TWE0724WB****A4, B4	BAYHTRLW05*	5.00	575/3/60	1	11	15
		BAYHTRLW10*	9.96		1	17	20
		BAYHTRLW15*	14.96		1	23	25
		BAYHTRLW25*	24.92		2	35	35
		BAYHTRLW35*	34.88		2	47	50
7.5	TWE09043B****A0, B0	BAYHTRL305*	3.76	208/3/60	1	21	25
		BAYHTRL310*	7.48		1	34	35
		BAYHTRL315*	11.24		1	47	50
		BAYHTRL325*	18.72		2	73	80
		BAYHTRL335*	26.20		2	99	100

Table 67. Unit wiring with electric heat (single point connection) — 6-20 ton SZVAV and 2-Speed VFD air handlers — 60 Hz (continued)

Tons	Used With	Heater Model Number	Heater KW Rating	Unit Power Supply	Control Stages	MCA	Maximum Fuse or HACR Circuit Breaker Size
7.5	TWE09043B****A0, B0	BAYHTRL305*	5.00	230/3/60	1	23	25
		BAYHTRL310*	9.96		1	38	40
		BAYHTRL315*	14.96		1	53	60
		BAYHTRL325*	24.92		2	83	90
		BAYHTRL335*	34.88		2	113	125
7.5	TWE09043B****A4, B4	BAYHTRL305*	3.76	208/3/60	1	25	30
		BAYHTRL310*	7.48		1	38	40
		BAYHTRL315*	11.24		1	51	60
		BAYHTRL325*	18.72		2	77	80
		BAYHTRL335*	26.20		2	103	110
7.5	TWE09043B****A4, B4	BAYHTRL305*	5.00	230/3/60	1	27	30
		BAYHTRL310*	9.96		1	42	45
		BAYHTRL315*	14.96		1	57	60
		BAYHTRL325*	24.92		2	87	90
		BAYHTRL335*	34.88		2	117	125
7.5	TWE09044B****A0, B0	BAYHTRL405*	5.00	460/3/60	1	11	15
		BAYHTRL410*	9.96		1	19	20
		BAYHTRL415*	14.96		1	26	30
		BAYHTRL425*	24.92		2	41	45
		BAYHTRL435*	34.88		2	56	60
7.5	TWE09044B****A4, B4	BAYHTRL405*	5.00	460/3/60	1	13	15
		BAYHTRL410*	9.96		1	21	25
		BAYHTRL415*	14.96		1	28	30
		BAYHTRL425*	24.92		2	43	45
		BAYHTRL435*	34.88		2	58	60
7.5	TWE0904WB****A0, B0	BAYHTRLW05*	5.00	575/3/60	1	9	15
		BAYHTRLW10*	9.96		1	15	15
		BAYHTRLW15*	14.96		1	21	25
		BAYHTRLW25*	24.92		2	33	35
		BAYHTRLW35*	34.88		2	45	45
7.5	TWE0904WB****A4, B4	BAYHTRLW05*	5.00	575/3/60	1	11	15
		BAYHTRLW10*	9.96		1	17	20
		BAYHTRLW15*	14.96		1	23	25
		BAYHTRLW25*	24.92		2	35	35
		BAYHTRLW35*	34.88		2	47	50
10	TWE12043A****A0, B0 TWE12043B****A0, B0	BAYHTRL305*	3.76	208/3/60	1	21	25
		BAYHTRL310*	7.48		1	34	35
		BAYHTRL315*	11.24		1	47	50
		BAYHTRL325*	18.72		2	73	80
		BAYHTRL335*	26.20		2	99	100
10	TWE12043A****A0, B0 TWE12043B****A0, B0	BAYHTRL305*	5.00	230/3/60	1	23	25
		BAYHTRL310*	9.96		1	38	40
		BAYHTRL315*	14.96		1	53	60
		BAYHTRL325*	24.92		2	83	90
		BAYHTRL335*	34.88		2	113	125



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Table 67. Unit wiring with electric heat (single point connection) — 6-20 ton SZVAV and 2-Speed VFD air handlers — 60 Hz (continued)

Tons	Used With	Heater Model Number	Heater KW Rating	Unit Power Supply	Control Stages	MCA	Maximum Fuse or HACR Circuit Breaker Size
10	TWE12043A****A4, B4 TWE12043B****A4, B4	BAYHTRL305*	3.76	208/3/60	1	25	30
		BAYHTRL310*	7.48		1	38	40
		BAYHTRL315*	11.24		1	51	60
		BAYHTRL325*	18.72		2	77	80
		BAYHTRL335*	26.20		2	103	110
10	TWE12043A****A4, B4 TWE12043B****A4, B4	BAYHTRL305*	5.00	230/3/60	1	27	30
		BAYHTRL310*	9.96		1	42	45
		BAYHTRL315*	14.96		1	57	60
		BAYHTRL325*	24.92		2	87	90
		BAYHTRL335*	34.88		2	117	125
10	TWE12044A****A0, B0 TWE12044B****A0, B0	BAYHTRL405*	5.00	460/3/60	1	11	15
		BAYHTRL410*	9.96		1	19	20
		BAYHTRL415*	14.96		1	26	30
		BAYHTRL425*	24.92		2	41	45
		BAYHTRL435*	34.88		2	56	60
10	TWE12044A****A4, B4 TWE12044B****A4, B4	BAYHTRL405*	5.00	460/3/60	1	13	15
		BAYHTRL410*	9.96		1	21	25
		BAYHTRL415*	14.96		1	28	30
		BAYHTRL425*	24.92		2	43	45
		BAYHTRL435*	34.88		2	58	60
10	TWE1204WA****A0, B0 TWE1204WB****A0, B0	BAYHTRLW05*	5.00	575/3/60	1	9	15
		BAYHTRLW10*	9.96		1	15	15
		BAYHTRLW15*	14.96		1	21	25
		BAYHTRLW25*	24.92		2	33	35
		BAYHTRLW35*	34.88		2	45	50
10	TWE1204WA****A4, B4 TWE1204WB****A4, B4	BAYHTRLW05*	5.00	575/3/60	1	11	15
		BAYHTRLW10*	9.96		1	17	20
		BAYHTRLW15*	14.96		1	23	25
		BAYHTRLW25*	24.92		2	35	35
		BAYHTRLW35*	34.88		2	47	50
12.5	TWE15043B****A0, B0	BAYHTRM310*	7.51	208/3/60	1	34	35
		BAYHTRM320*	14.96		1	60	60
		BAYHTRM330*	22.47		2	86	90
		BAYHTRM350*	37.44		2	138	150
12.5	TWE15043B****A0, B0	BAYHTRM310*	10.00	230/3/60	1	38	40
		BAYHTRM320*	19.92		1	68	70
		BAYHTRM330*	29.92		2	98	100
		BAYHTRM350*	49.84		2	158	175
12.5	TWE15043B****A4, B4	BAYHTRM310*	7.51	208/3/60	1	43	50
		BAYHTRM320*	14.96		1	69	70
		BAYHTRM330*	22.47		2	95	100
		BAYHTRM350*	37.44		2	147	150
12.5	TWE15043B****A4, B4	BAYHTRM310*	10.00	230/3/60	1	47	50
		BAYHTRM320*	19.92		1	77	80
		BAYHTRM330*	29.92		2	107	110
		BAYHTRM350*	49.84		2	167	175

Table 67. Unit wiring with electric heat (single point connection) — 6-20 ton SZVAV and 2-Speed VFD air handlers — 60 Hz (continued)

Tons	Used With	Heater Model Number	Heater KW Rating	Unit Power Supply	Control Stages	MCA	Maximum Fuse or HACR Circuit Breaker Size
12.5	TWE15044B****A0, B0	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
12.5	TWE15044B****A4, B4	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	TWE1504WB****A0, B0	BAYHTRMW10*	10.00	575/3/60	1	15	15
		BAYHTRMW20*	19.92		1	27	30
		BAYHTRMW30*	29.92		2	39	40
		BAYHTRMW50*	49.84		2	63	70
12.5	TWE1504WB****A4, B4	BAYHTRMW10*	10.00	575/3/60	1	18	20
		BAYHTRMW20*	19.92		1	30	35
		BAYHTRMW30*	29.92		2	42	45
		BAYHTRMW50*	49.84		2	66	70
15	TWE18043B****A0, B0	BAYHTRM310*	7.51	208/3/60	1	38	40
		BAYHTRM320*	14.96		1	64	70
		BAYHTRM330*	22.47		2	90	90
		BAYHTRM350*	37.44		2	142	150
15	TWE18043B****A0, B0	BAYHTRM310*	10.00	230/3/60	1	42	45
		BAYHTRM320*	19.92		1	72	80
		BAYHTRM330*	29.92		2	102	110
		BAYHTRM350*	49.84		2	162	175
15	TWE18043B****A4, B4	BAYHTRM310*	7.51	208/3/60	1	43	50
		BAYHTRM320*	14.96		1	69	70
		BAYHTRM330*	22.47		2	95	100
		BAYHTRM350*	37.44		2	147	150
15	TWE18043B****A4, B4	BAYHTRM310*	10.00	230/3/60	1	47	50
		BAYHTRM320*	19.92		1	77	80
		BAYHTRM330*	29.92		2	107	110
		BAYHTRM350*	49.84		2	167	175
15	TWE18044B****A0, B0	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	TWE18044B****A4, B4	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	TWE1804WB****A0, B0	BAYHTRMW10*	10.00	575/3/60	1	17	20
		BAYHTRMW20*	19.92		1	29	30
		BAYHTRMW30*	29.92		2	41	45
		BAYHTRMW50*	49.84		2	65	70



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Table 67. Unit wiring with electric heat (single point connection) — 6-20 ton SZVAV and 2-Speed VFD air handlers — 60 Hz (continued)

Tons	Used With	Heater Model Number	Heater KW Rating	Unit Power Supply	Control Stages	MCA	Maximum Fuse or HACR Circuit Breaker Size
15	TWE1804WB****A4, B4	BAYHTRMW10*	10.00	575/3/60	1	18	20
		BAYHTRMW20*	19.92		1	30	35
		BAYHTRMW30*	29.92		2	42	45
		BAYHTRMW50*	49.84		2	66	70
20	TWE24043B****A0, B0	BAYHTRM310*	7.51	208/3/60	1	43	50
		BAYHTRM320*	14.96		1	69	70
		BAYHTRM330*	22.47		2	95	100
		BAYHTRM350*	37.44		2	147	150
20	TWE24043B****A0, B0	BAYHTRM310*	10.00	230/3/60	1	47	50
		BAYHTRM320*	19.92		1	77	80
		BAYHTRM330*	29.92		2	107	110
		BAYHTRM350*	49.84		2	167	175
20	TWE24043B****A4, B4	BAYHTRM310*	7.51	208/3/60	1	51	60
		BAYHTRM320*	14.96		1	77	80
		BAYHTRM330*	22.47		2	103	110
		BAYHTRM350*	37.44		2	155	175
20	TWE24043B****A4, B4	BAYHTRM310*	10.00	230/3/60	1	55	60
		BAYHTRM320*	19.92		1	85	90
		BAYHTRM330*	29.92		2	115	125
		BAYHTRM350*	49.84		2	175	175
20	TWE24044B****A0, B0	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
20	TWE24044B****A4, B4	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	TWE2404WB****A0, B0	BAYHTRMW10*	10.00	575/3/60	1	18	20
		BAYHTRMW20*	19.92		1	30	35
		BAYHTRMW30*	29.92		2	42	45
		BAYHTRMW50*	49.84		2	66	70
20	TWE2404WB****A4, B4	BAYHTRMW10*	10.00	575/3/60	1	21	25
		BAYHTRMW20*	19.92		1	33	35
		BAYHTRMW30*	29.92		2	45	45
		BAYHTRMW50*	49.84		2	69	70

Jobsite Connections

ReliaTel Controls

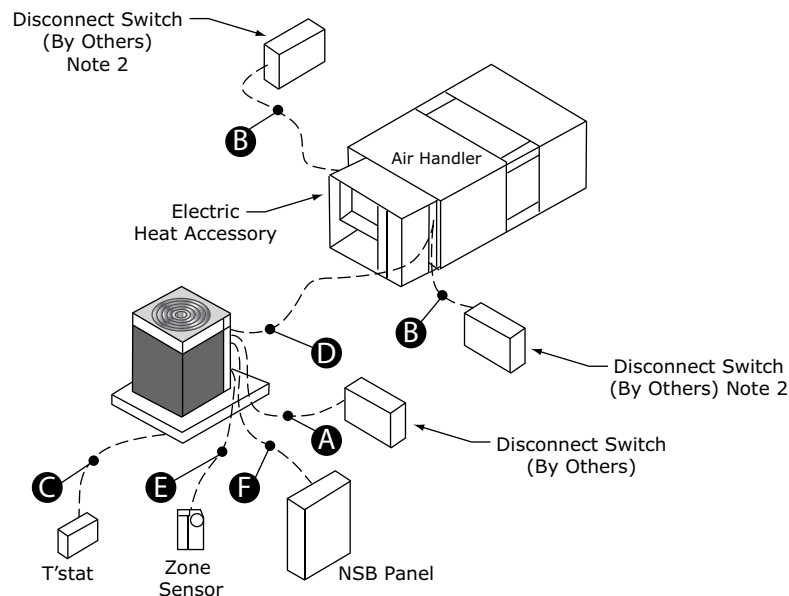
Wiring shown with dashed lines is to be furnished and installed by the customer. All customer supplied wiring must be copper only and must conform to NEC and local electrical codes. Codes may require line of sight between disconnect switch and unit.

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.

Figure 16. ReliaTel 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. Heat Pump thermostat: 5 to 8 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

Heat Pump Condenser

Figure 17. 6-7.5 ton heat pump, single compressor

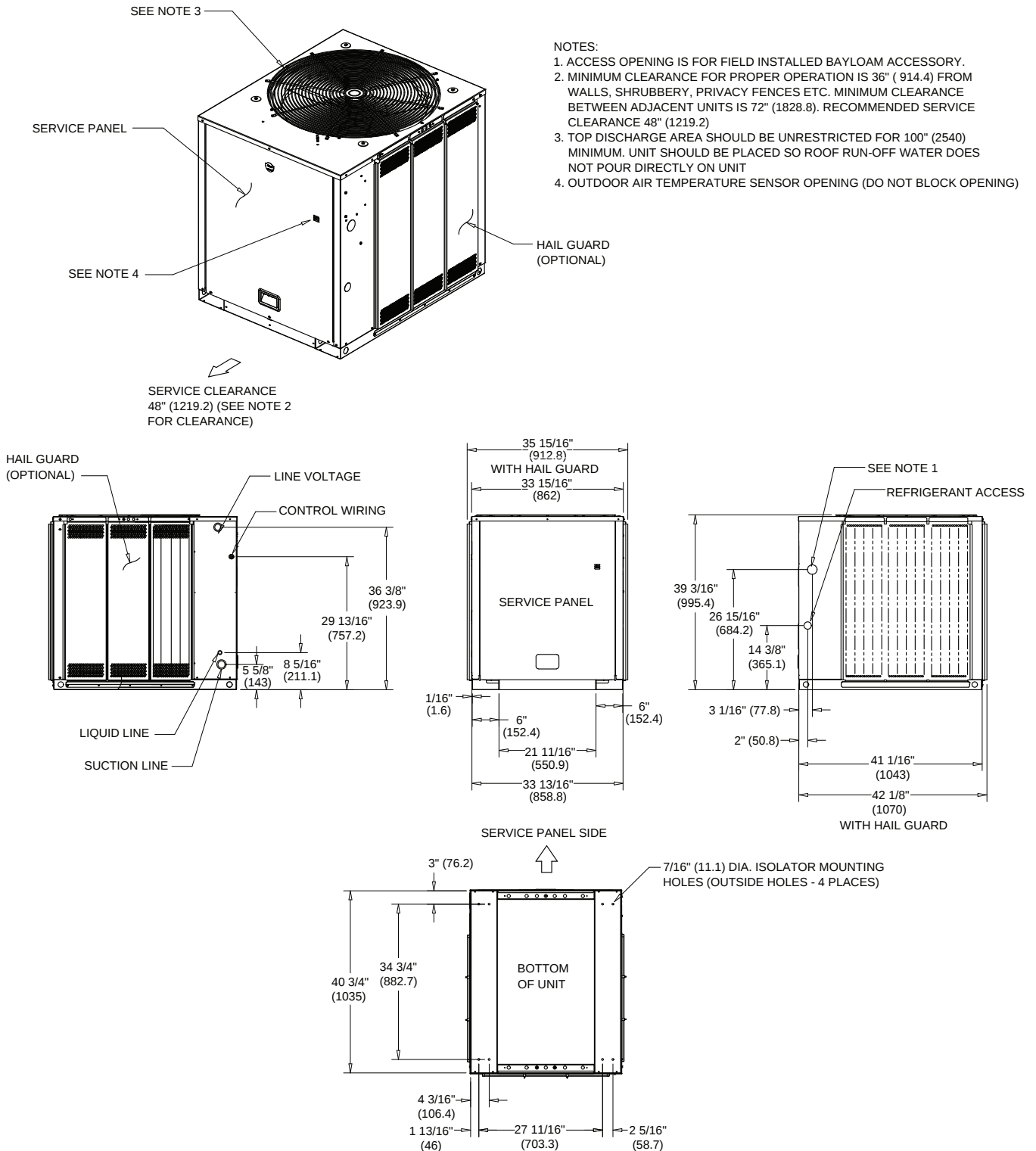
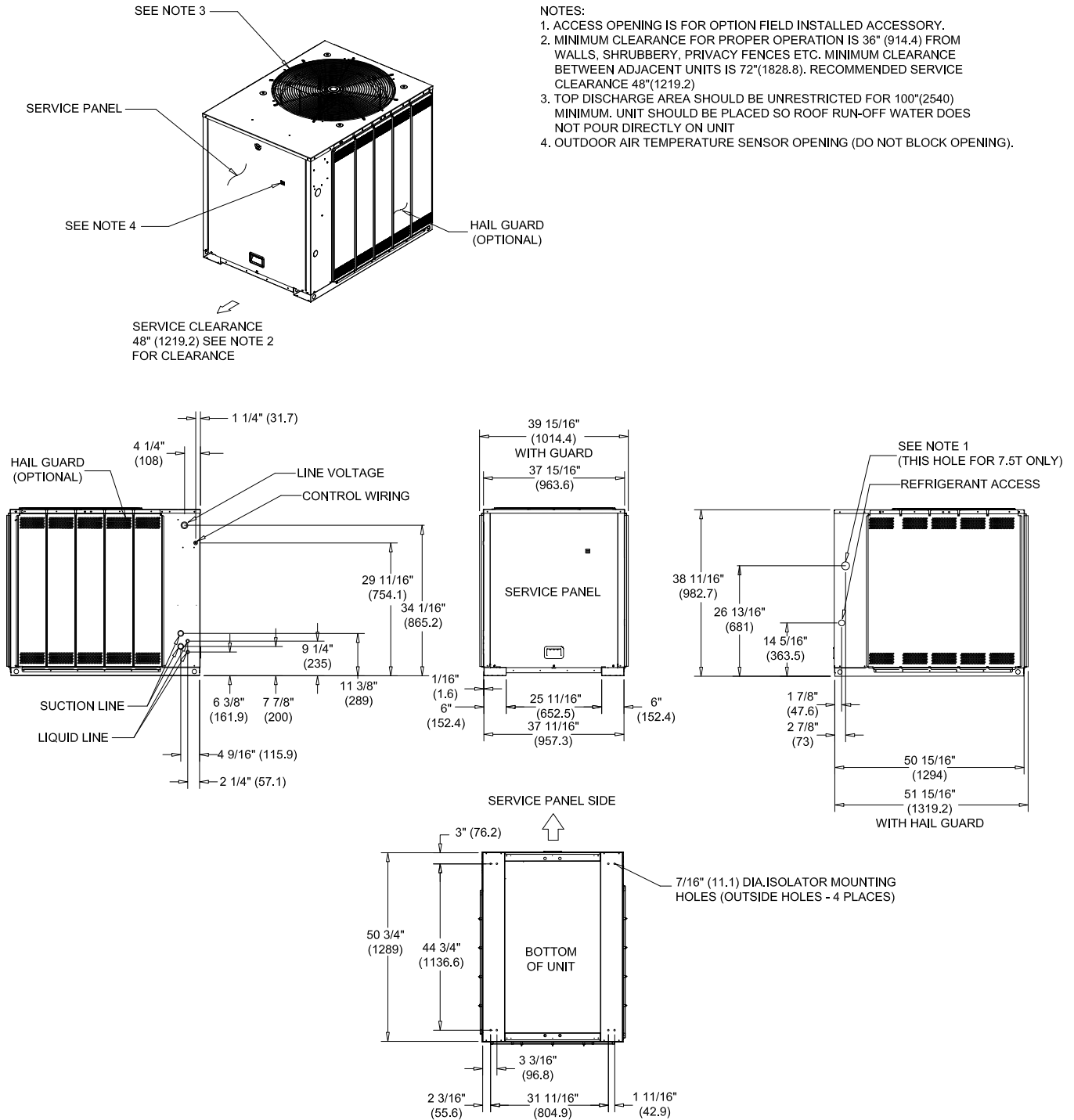


Figure 18. 6-7.5 ton heat pump, dual compressor



Dimensional Data

Figure 19. 10 ton heat pump, single compressor

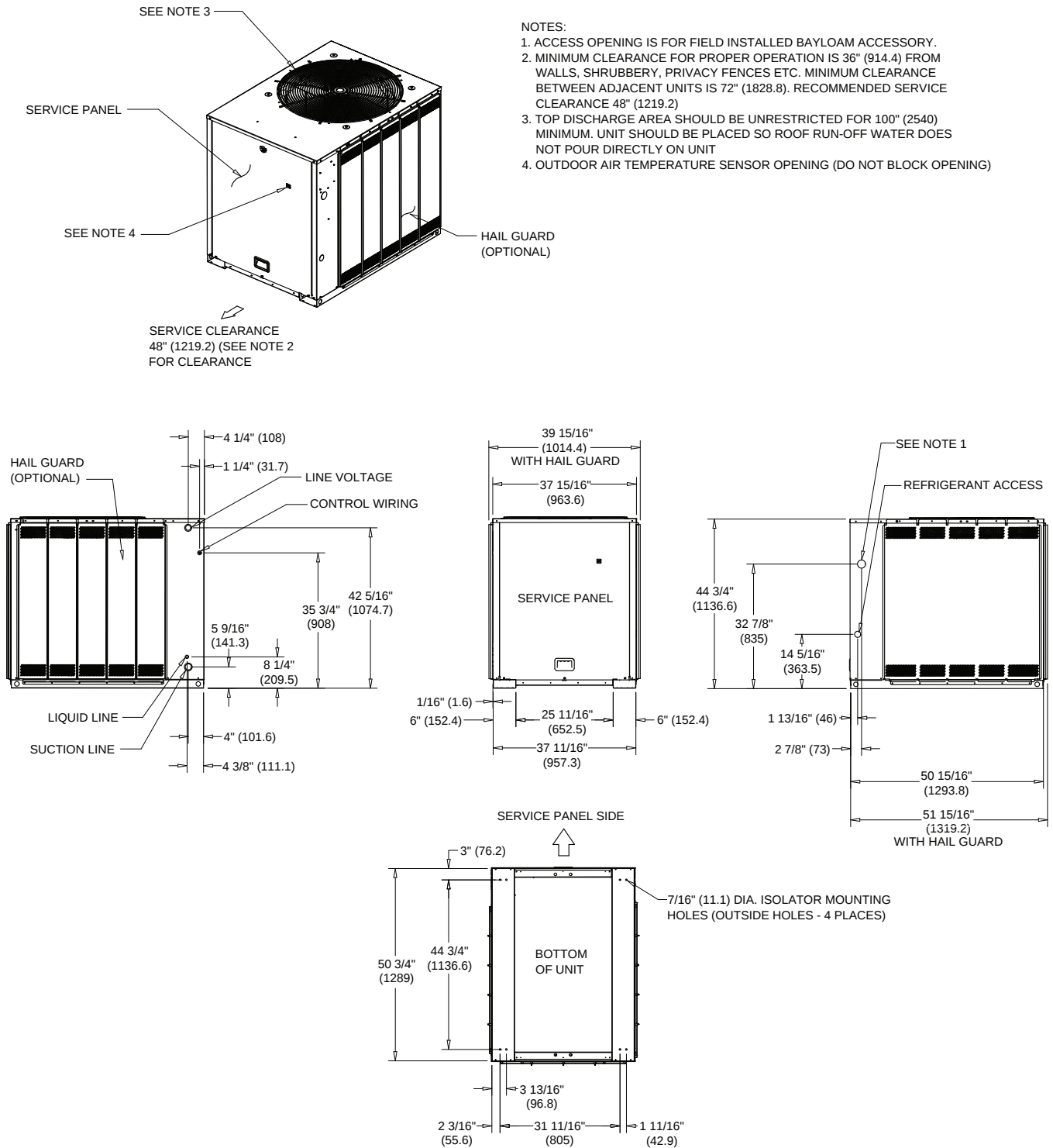
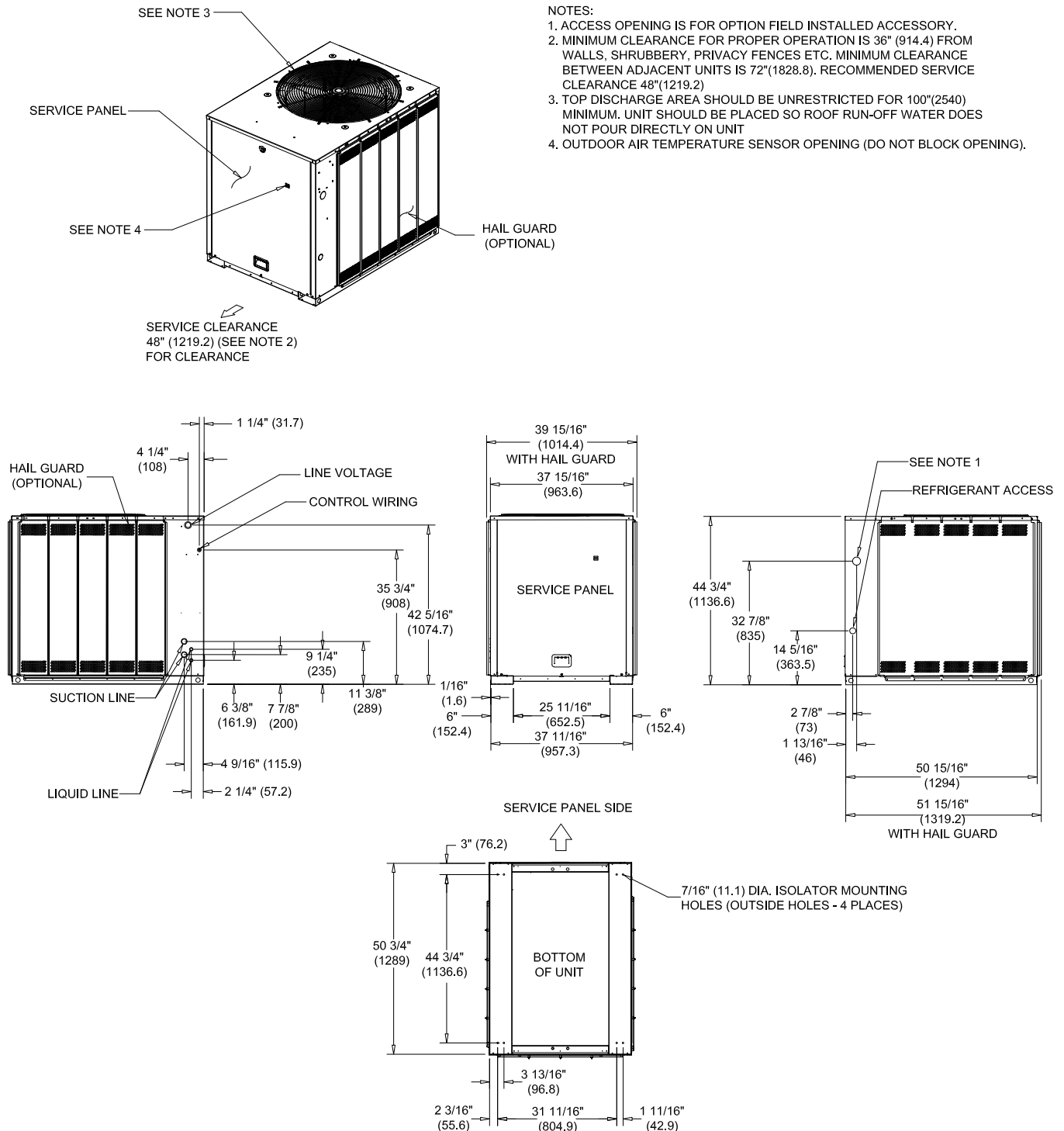
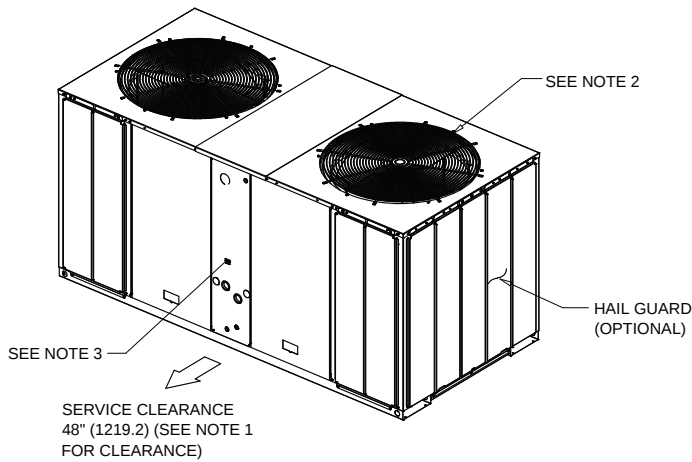


Figure 20. 10 ton heat pump, dual compressor



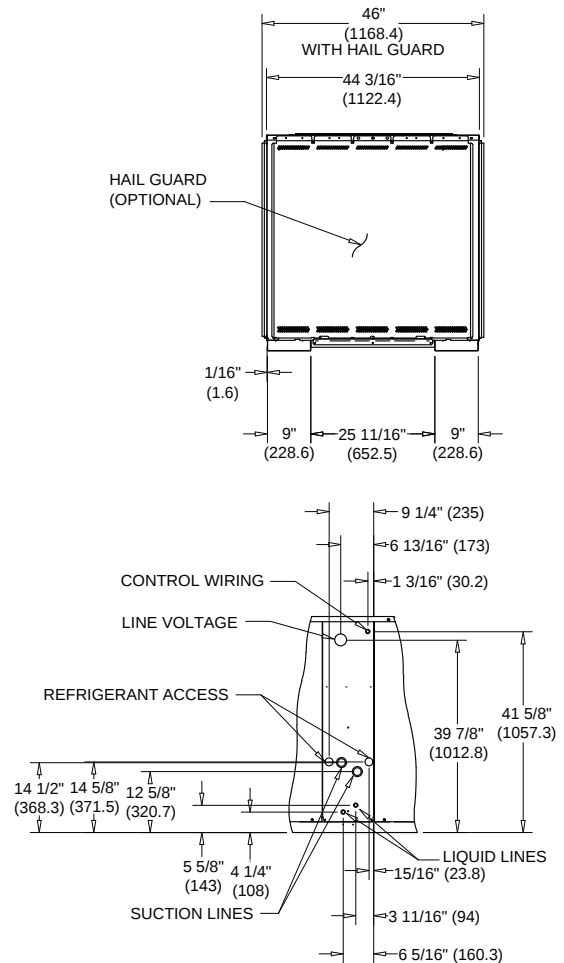
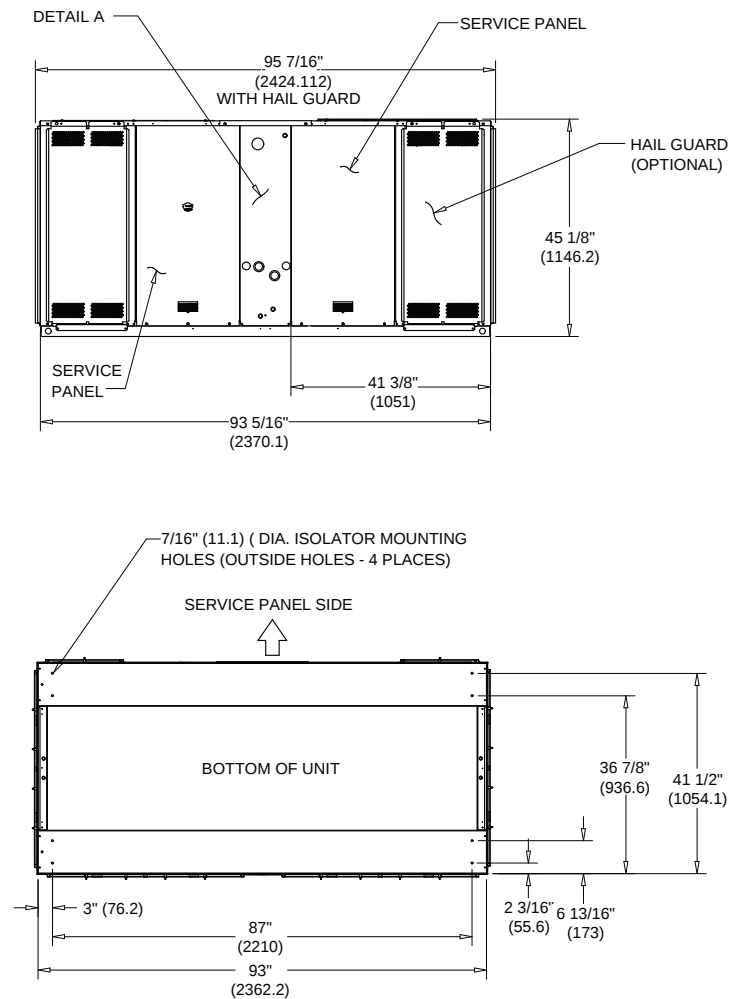
Dimensional Data

Figure 21. 15-20 ton heat pump, dual compressor



NOTES:

1. MINIMUM CLEARANCE FOR PROPER OPERATION IS 36" (914.4) FROM WALLS, SHRUBBERY, PRIVACY FENCES ETC. MINIMUM CLEARANCE BETWEEN ADJACENT UNITS IS 72" (1829). RECOMMENDED SERVICE CLEARANCE 48" (1219.2)
2. TOP DISCHARGE AREA SHOULD BE UNRESTRICTED FOR 100" (2540) MINIMUM. UNIT SHOULD BE PLACED SO ROOF RUN-OFF WATER DOES NOT POUR DIRECTLY ON UNIT
3. OUTDOOR AIR TEMPERATURE SENSOR OPENING (DO NOT BLOCK OPENING).



FRONT DETAIL A

DIMENSIONAL DETAIL

Figure 22. 5 ton air handler, single circuit

5. 1" (25.4) FEMALE SCHED. 40 (10.2) PVC PIPE DRAIN CONNECTION HORIZONTAL CONFIGURATION.

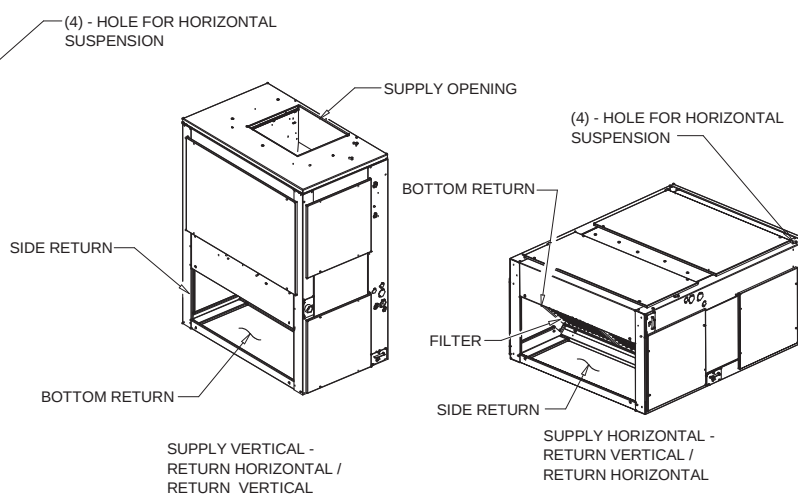


Figure 23. 5 ton air handler, dual circuit

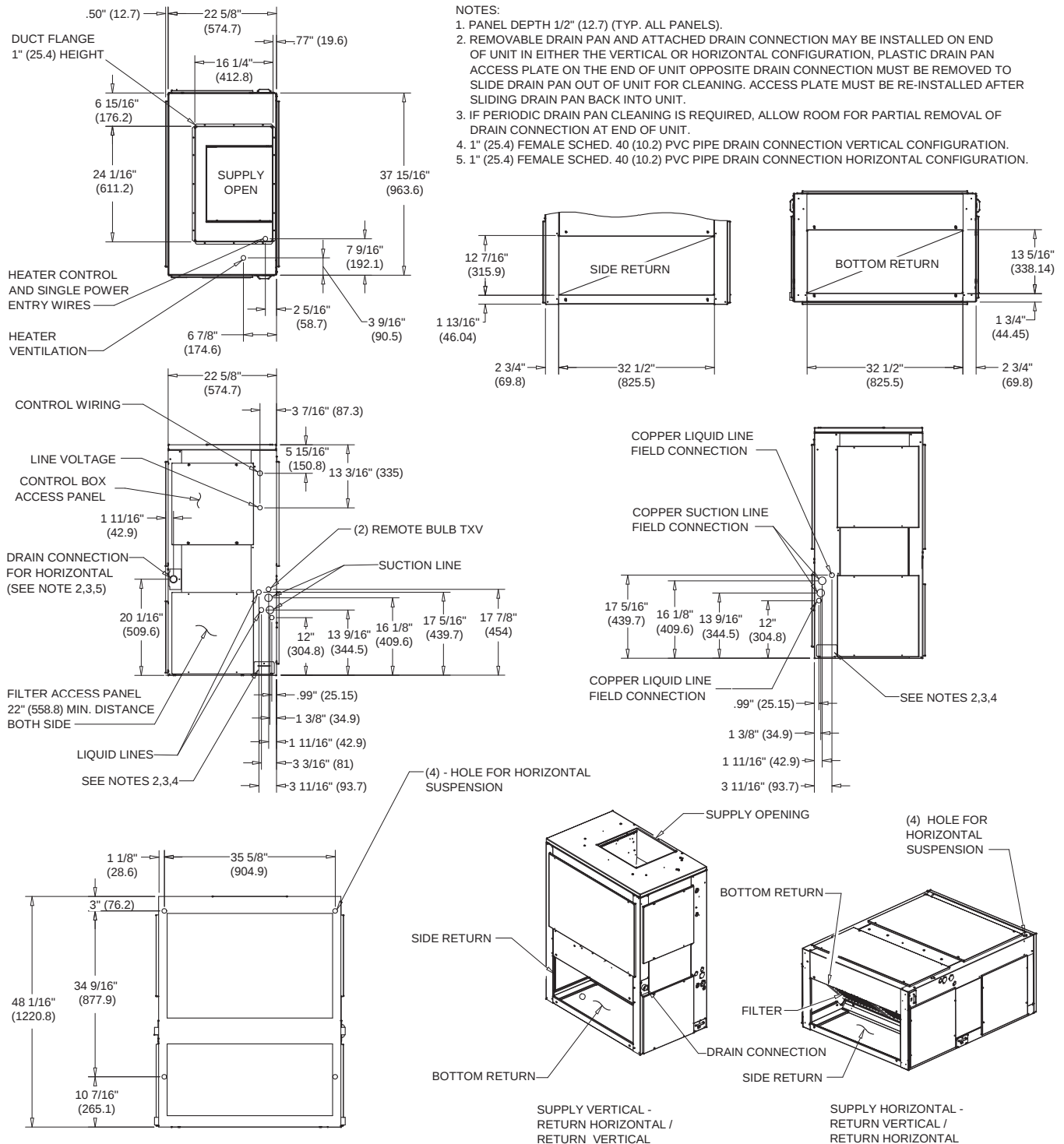
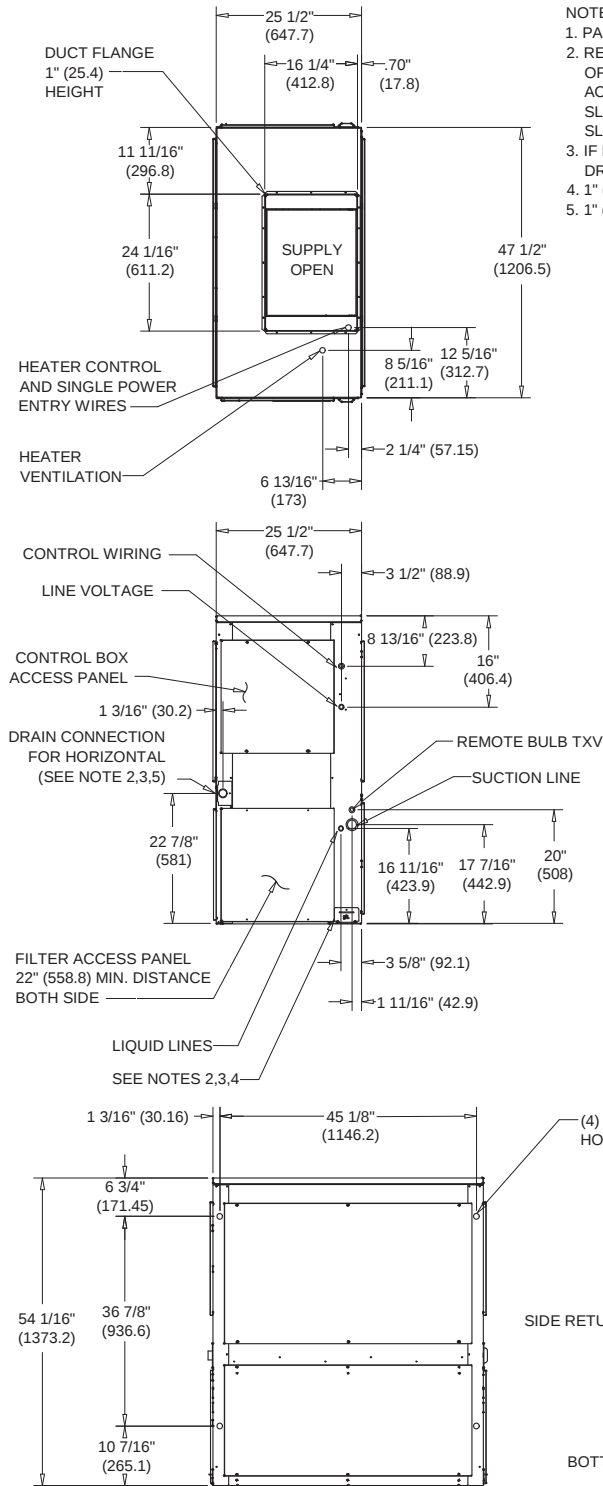


Figure 24. 7.5 ton air handler, single circuit



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.

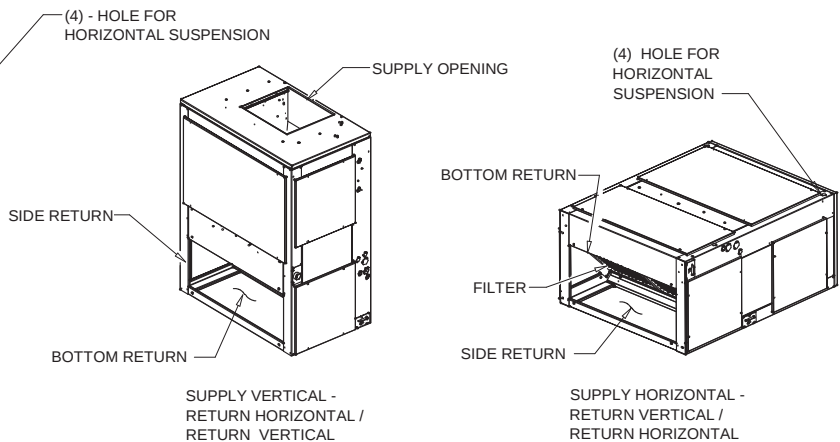
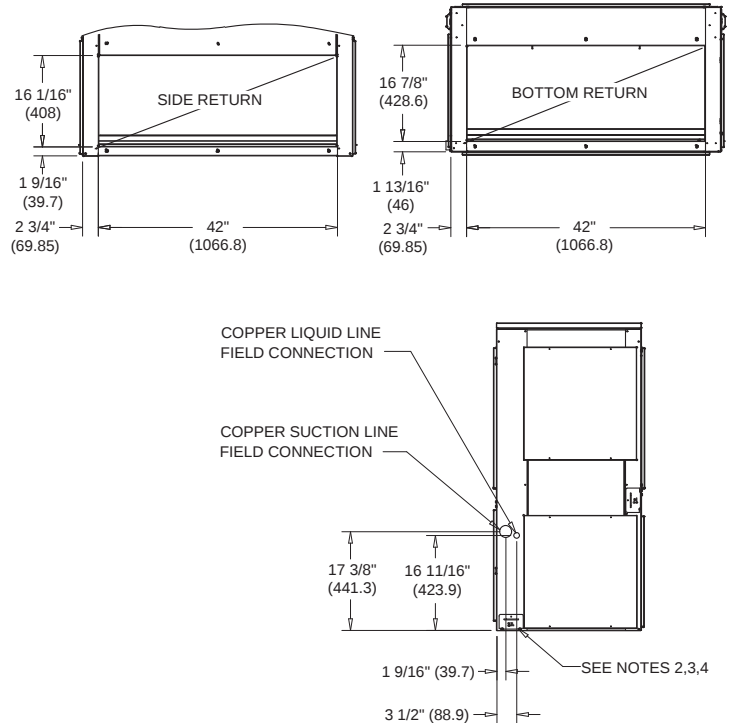


Figure 25. 6–7.5 ton air handler, dual circuit

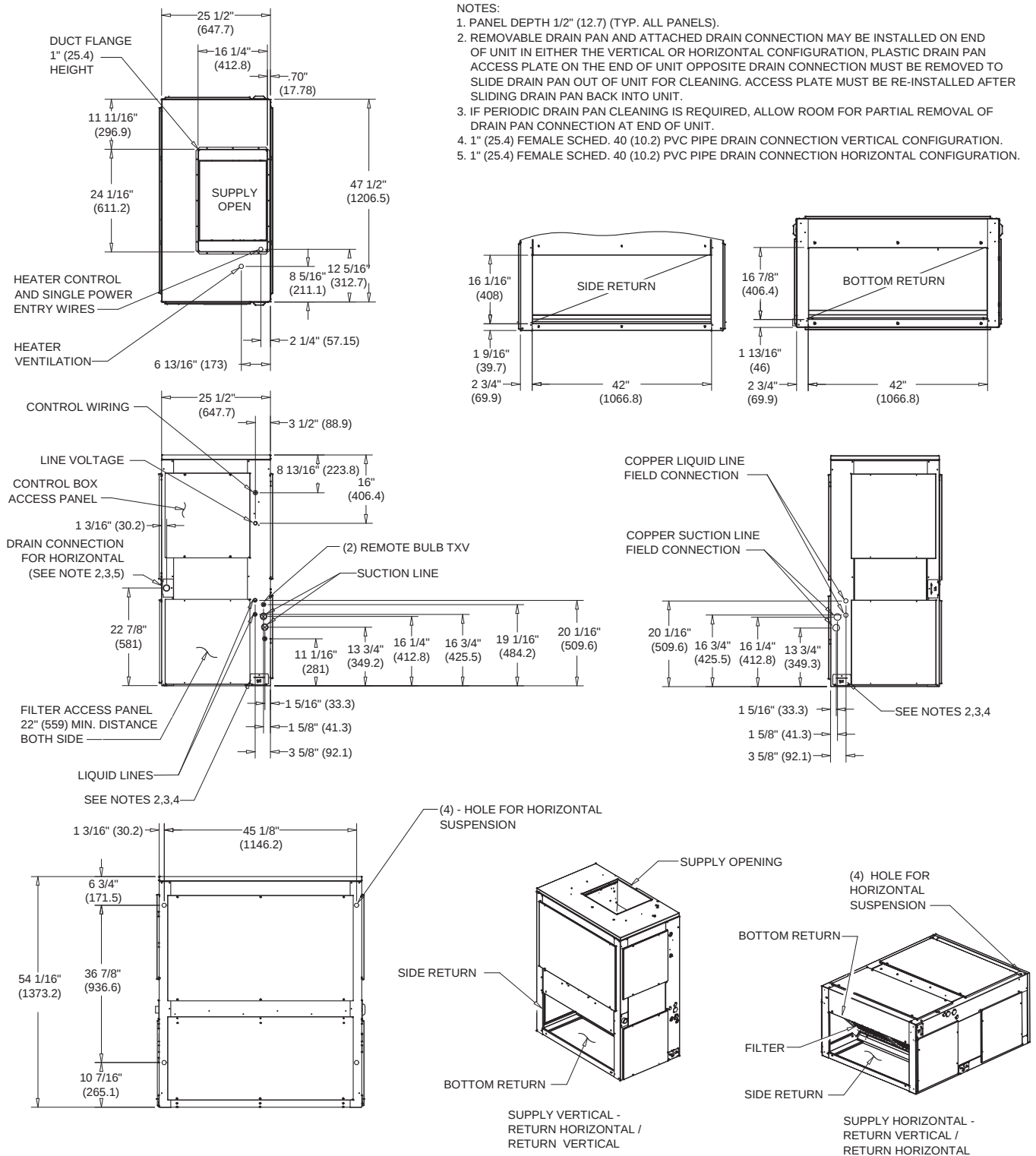


Figure 26. 10 ton air handler, single circuit

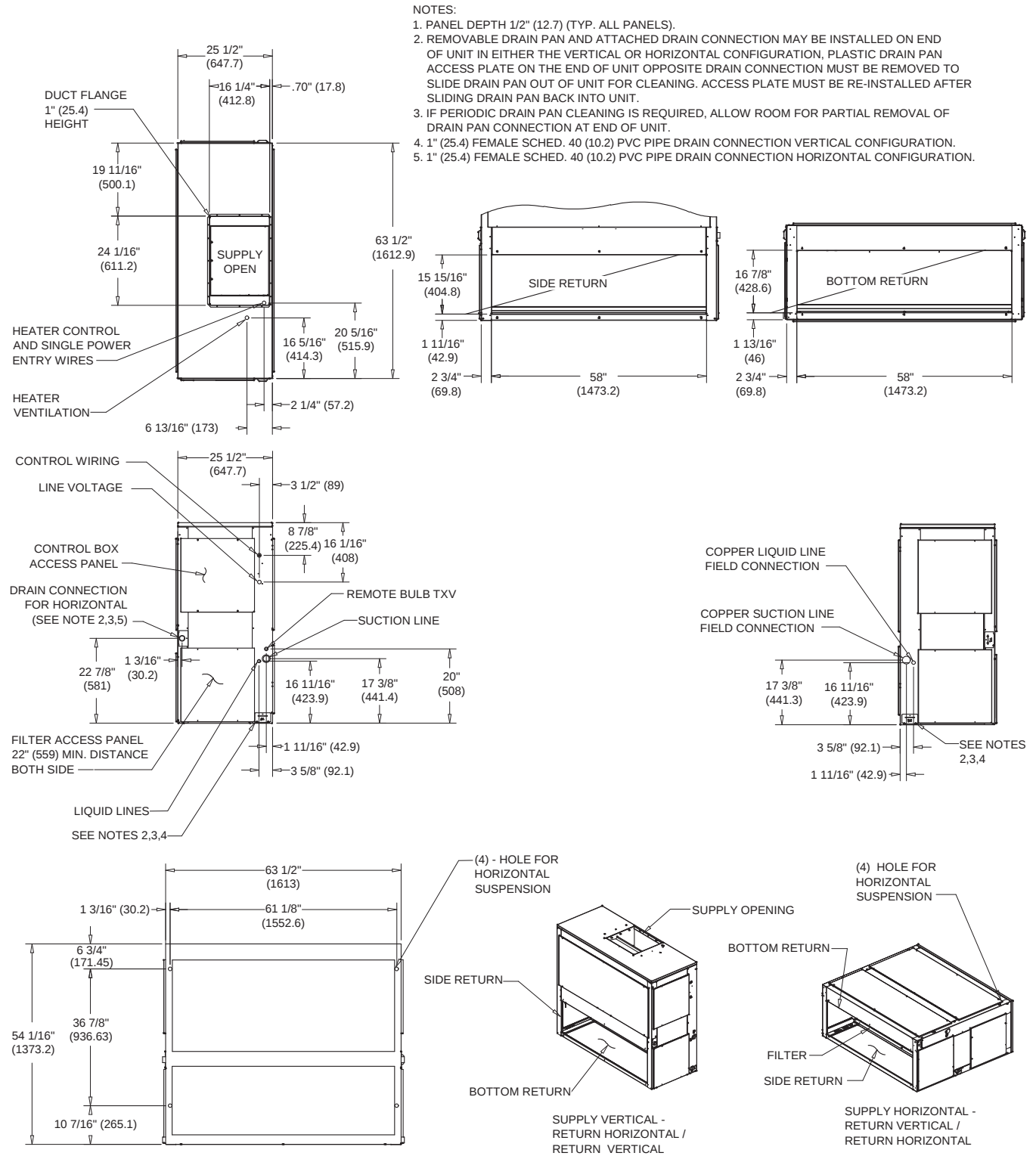


Figure 27. 10 ton air handler, dual circuit

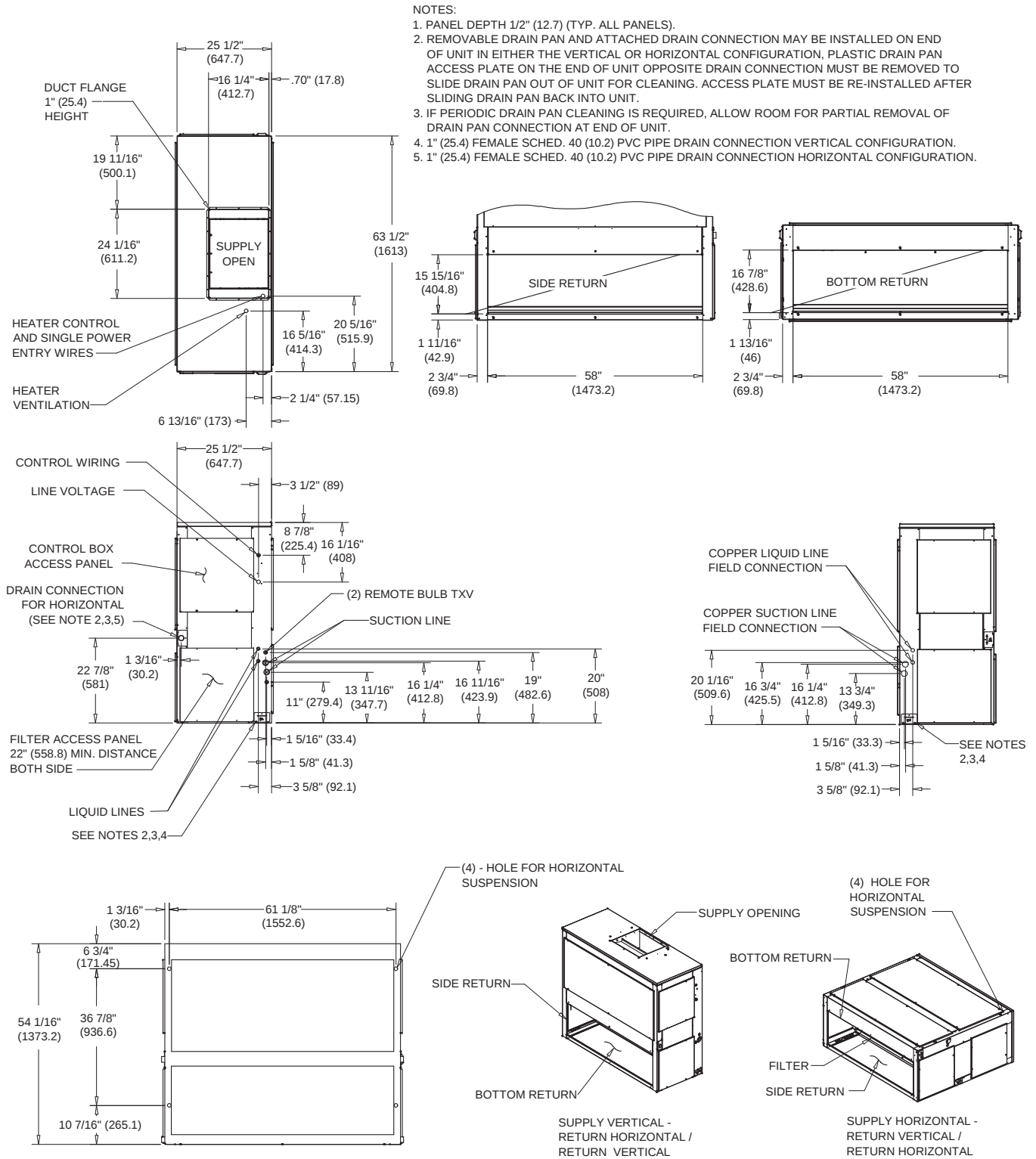


Figure 28. 12.5, 15 ton air handler, dual circuit

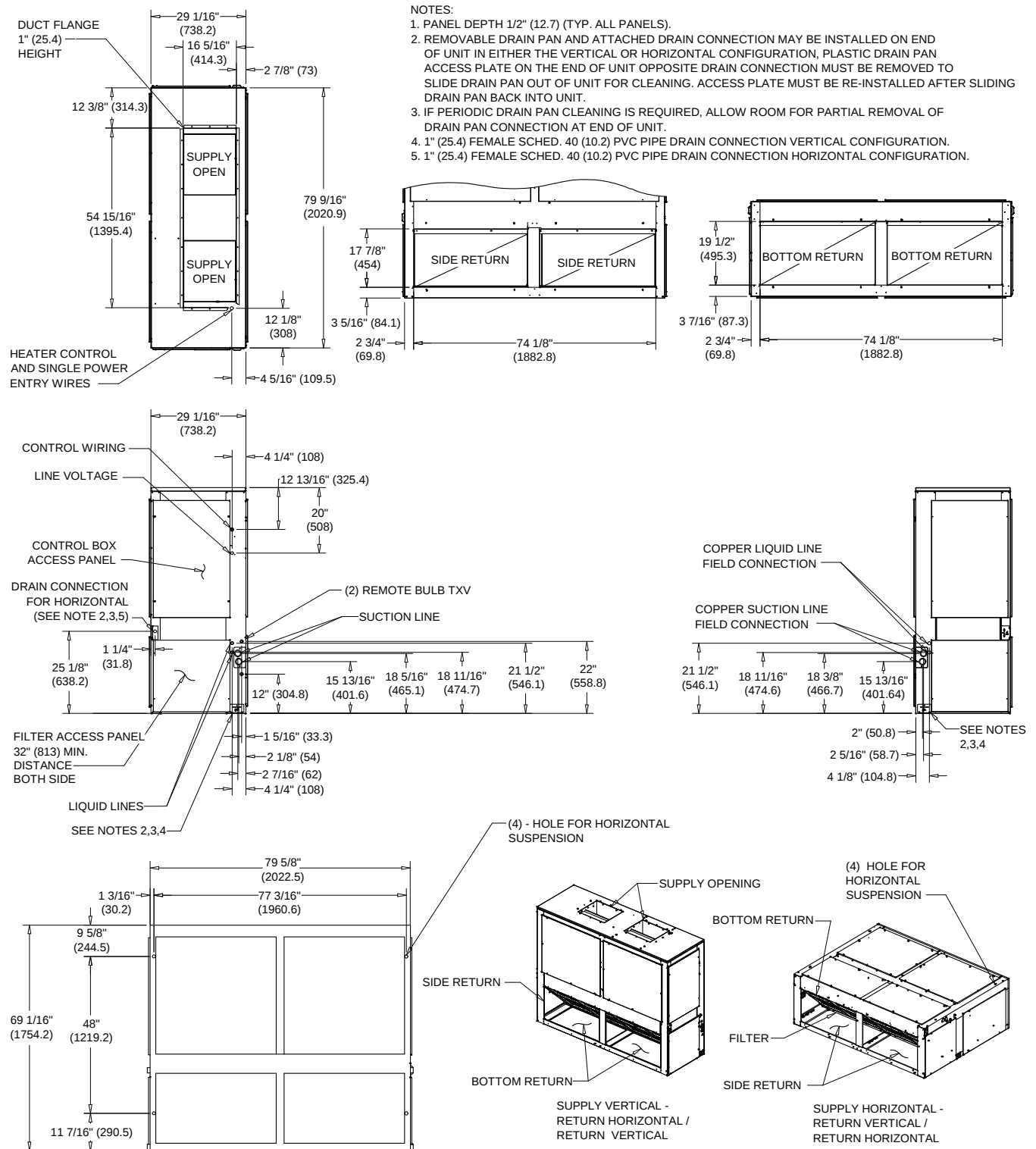
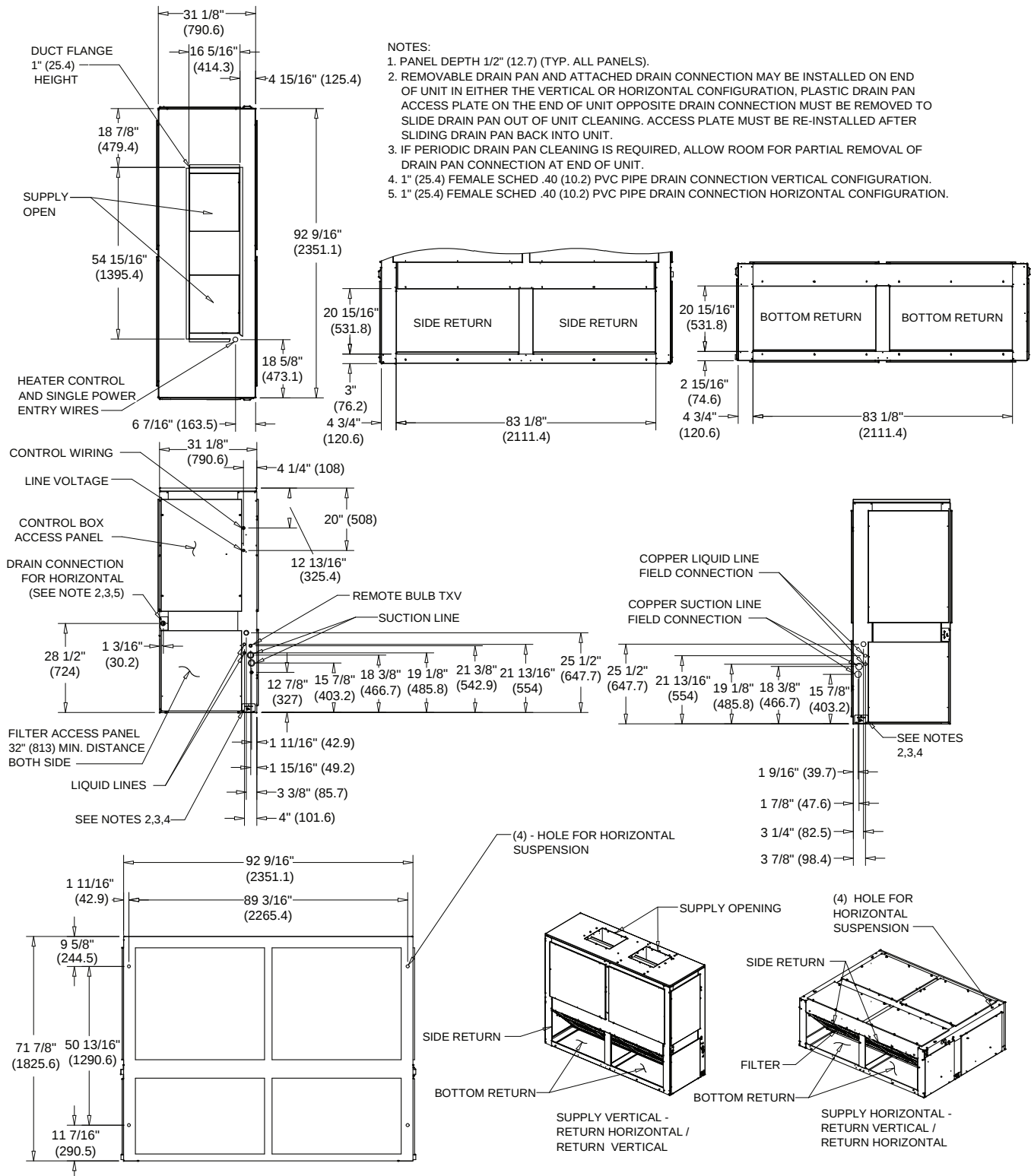


Figure 29. 20 ton air handler, dual circuit



Accessories

Figure 30. Rubber isolator accessory dimensions

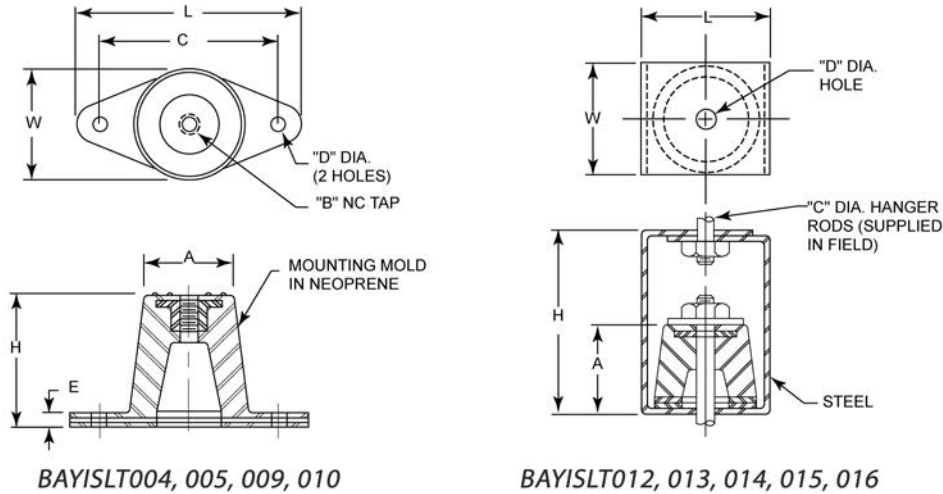


Table 68. Rubber isolator accessory dimensions

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.

Dimensional Data

Figure 31. Spring isolator accessory dimensions – inches (millimeters)

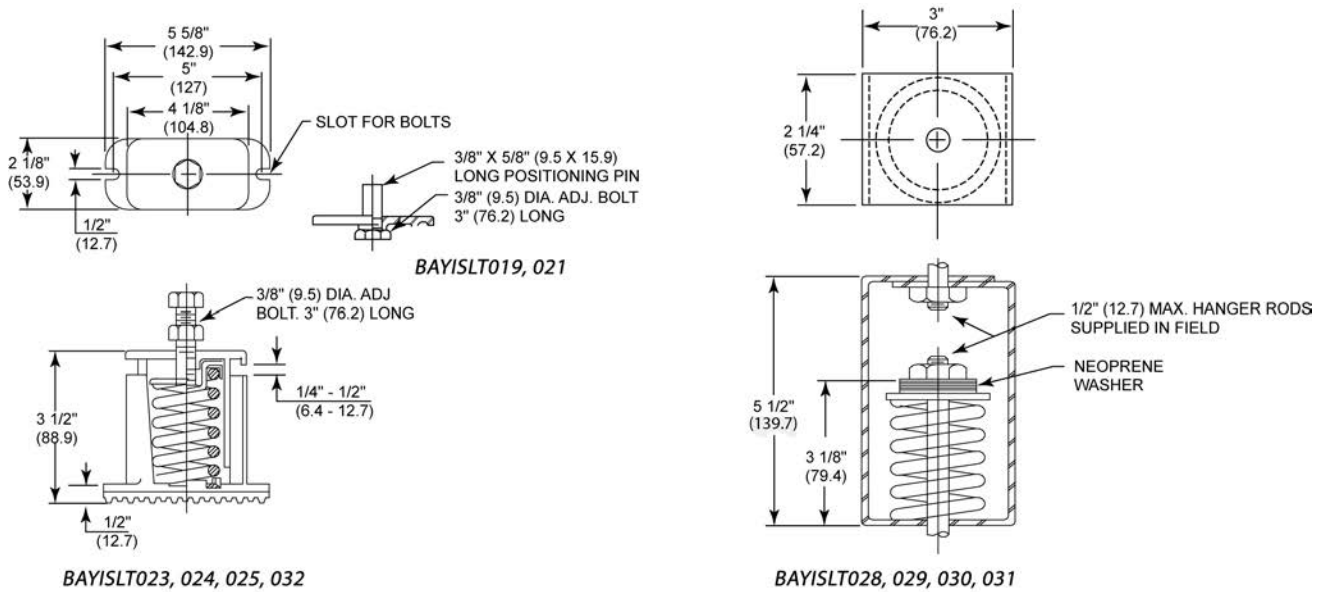


Figure 32. Electric heater accessory for 5-10 ton air handlers – inches (millimeters)

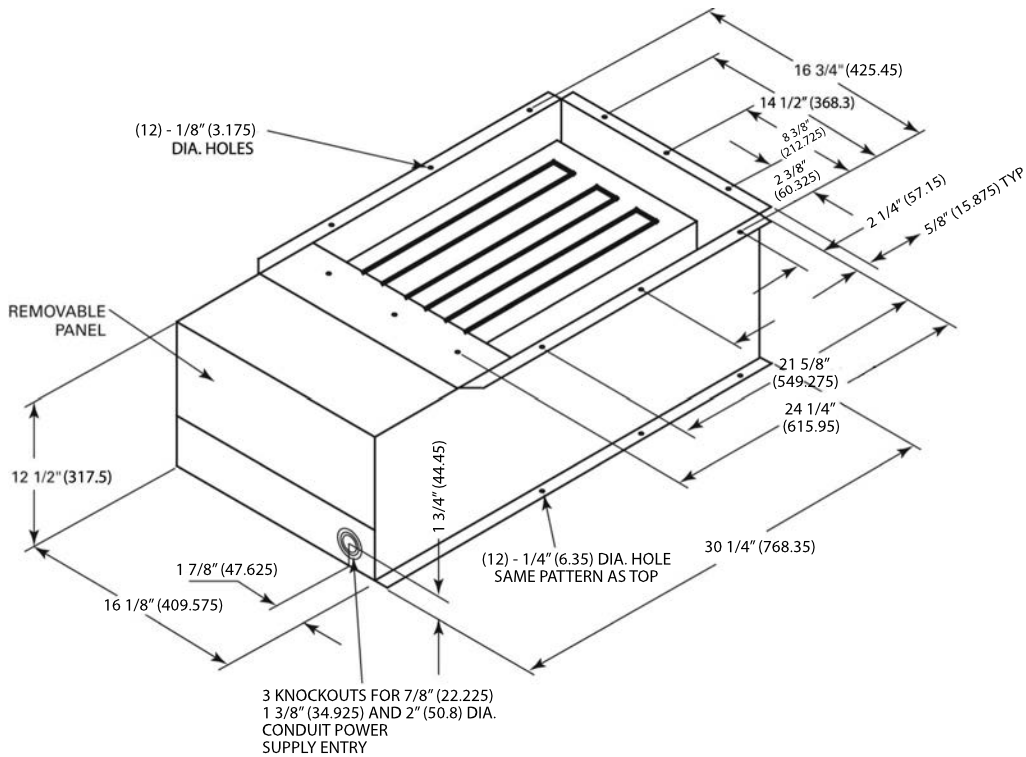


Figure 33. Electric heater accessory for 12.5-20 ton air handlers – inches (millimeters)

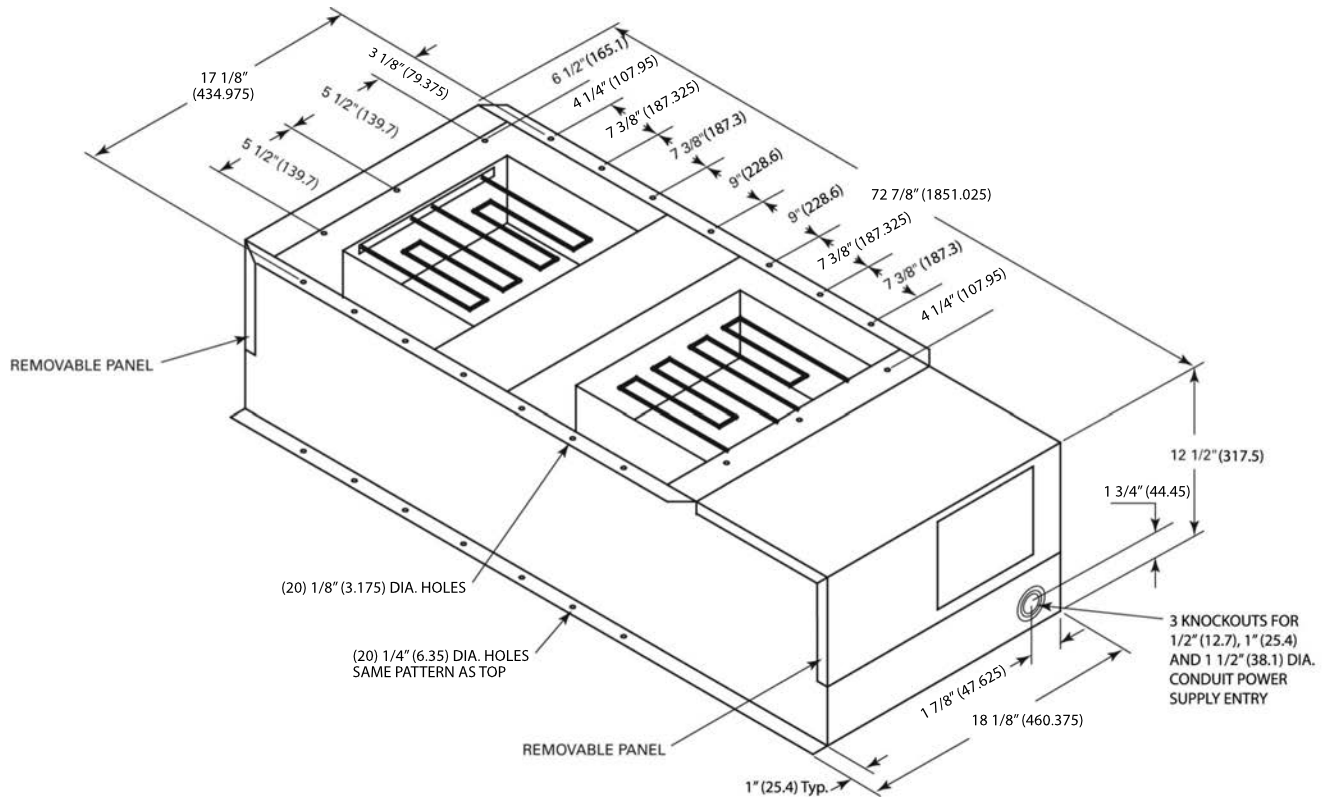


Figure 34. Hot water coil accessory – inches (millimeters)

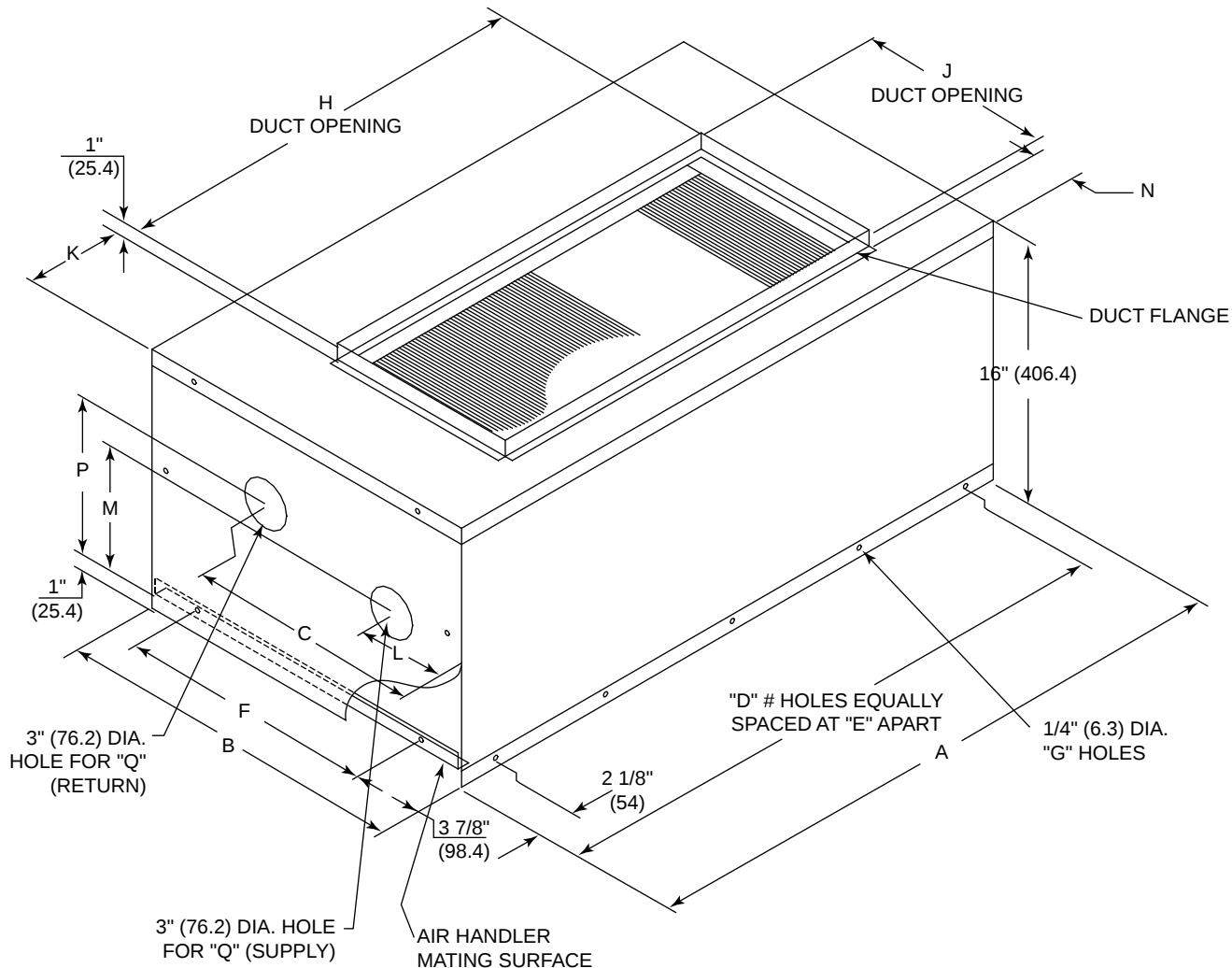


Table 69. Hot water coil accessory – inches (millimeters)

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)

Figure 35. Steam coil accessory – inches (millimeters)

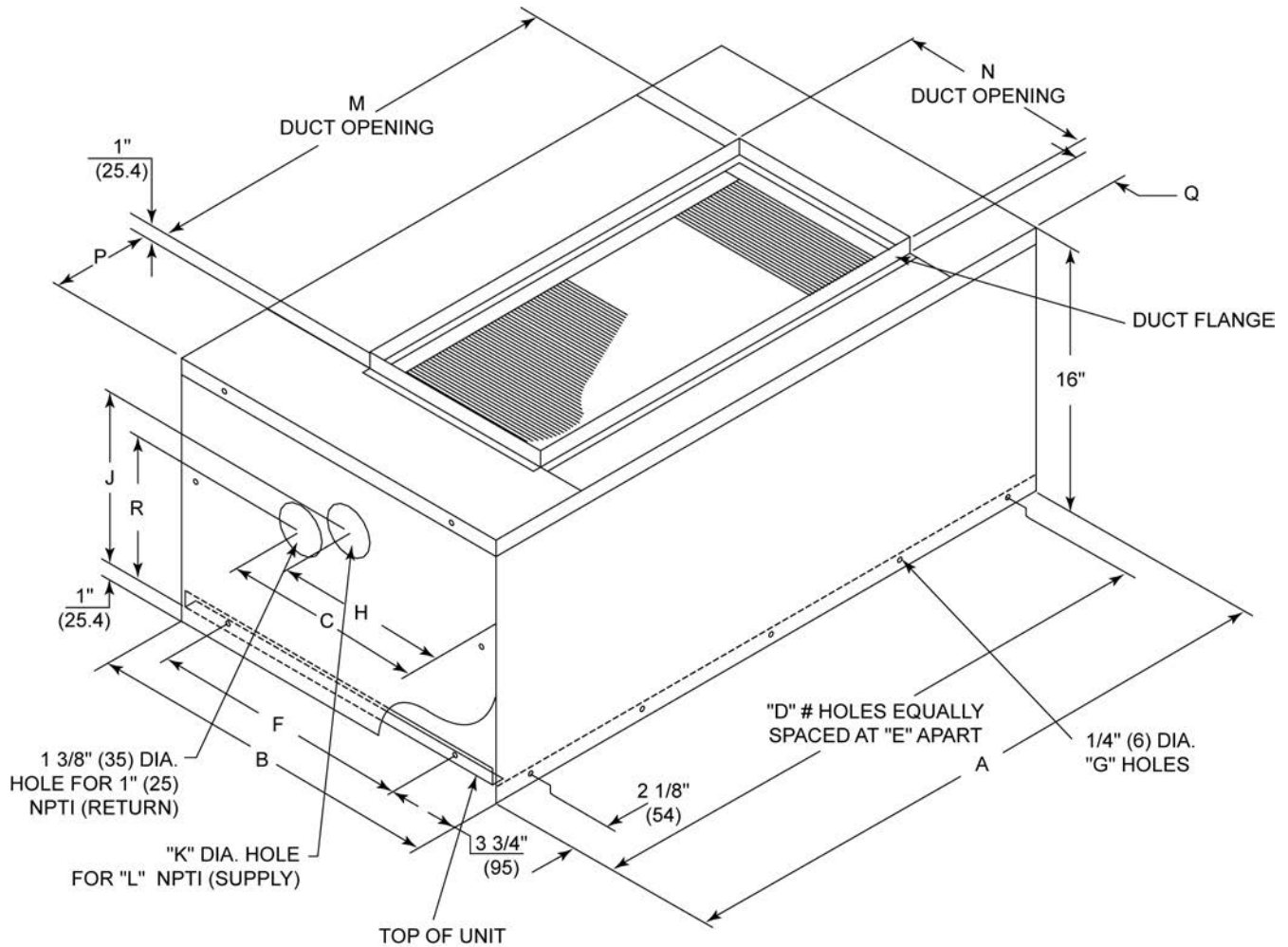


Table 70. Steam coil accessory – inches (millimeters)

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)				

Dimensional Data

Figure 36. Discharge plenum and grille accessory

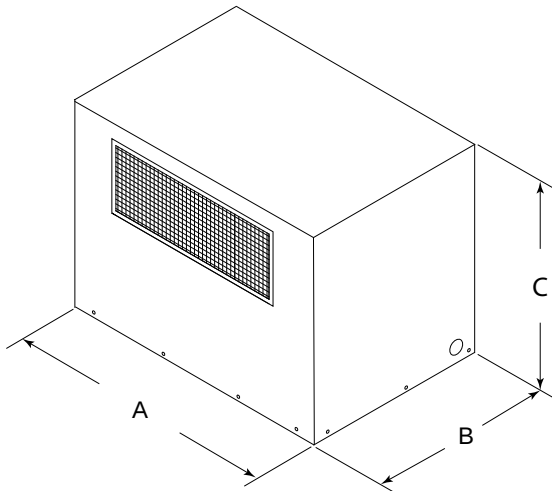


Table 71. Discharge plenum and grille dimensions – no heat – inches (millimeters)

Unit	Model No. ^(a)	A	B	C
TWE060	BAYPLNM015	37.94 (963.6)	21.94 (557.2)	28 (711.2)
TWE072, 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	BAYPLNM019 ^(b)	92.5 (2349.5)	30.43 (772.9)	24 (609.6)

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

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

Figure 37. Discharge plenum and grille accessory

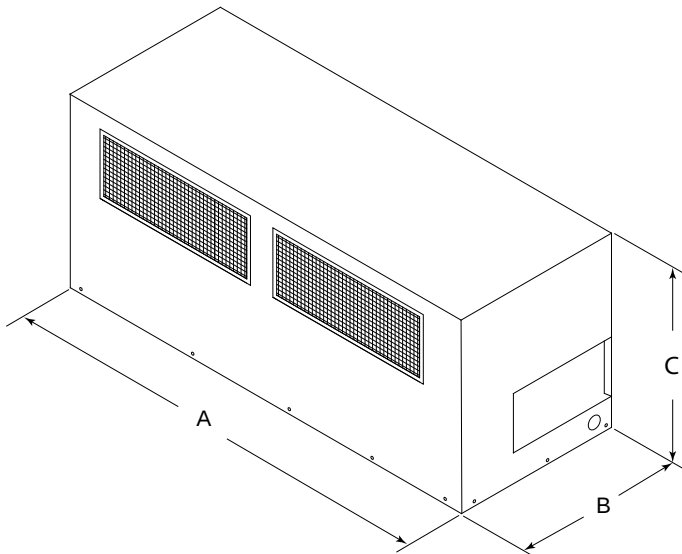
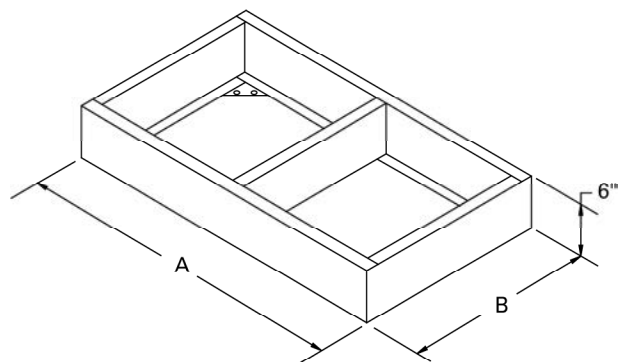


Table 72. Discharge plenum and grille dimensions – inches (millimeters) – (for use with electric heat)

Tons	Model No.	A	B	C
TWE060	BAYPLNM030	38.07 (967)	22.69 (576.3)	29.05 (738)
TWE072, TWE090	BAYPLNM031	47.86 (1216)	25.69 (652.5)	29.05 (738)
TWE120	BAYPLNM032	63.86 (1622)	25.69 (652.5)	29.05 (738)

Table 72. Discharge plenum and grille dimensions – inches (millimeters) – (for use with electric heat) (continued)

Tons	Model No.	A	B	C
TWE150, TWE180	BAYPLNM033	80.14 (2036)	29.10 (739.1)	35.11 (892)
TWE240	BAYPLNM034	92.96 (2361)	31.10 (789.9)	35.05 (890)

Figure 38. Subbase accessory – inches (millimeters)

Table 73. Subbase dimensions – inches (millimeters)

Tons	Model No.	A	B
TWE060	BAYBASE009	38 (965.2)	22.63 (574.8)
TWE072, 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	BAYBASE013	92.5 (2349.5)	31.14 (791.0)

Weights

Heat Pump Condenser

Table 74. TWA unit and corner weights — lbs (60 Hz)

Tons	Model No.	Shipping Max (lbs)	Net Max (lbs)	Corner Weights			
				1	2	3	4
6	TWA0724*A	360	327	112	83	56	76
	TWA0724*D	413	356	124	84	90	58
7.5	TWA0904*A	382	332	82	117	60	73
	TWA0904*D	466	409	143	96	103	67
10	TWA1204*A	495	466	165	109	116	76
	TWA1204*D	478	435	152	102	109	71
15	TWA1804*D	874	762	235	167	196	164
20	TWA2404*D	1003	845	253	265	147	181

Figure 39. TWA072, 090, 120

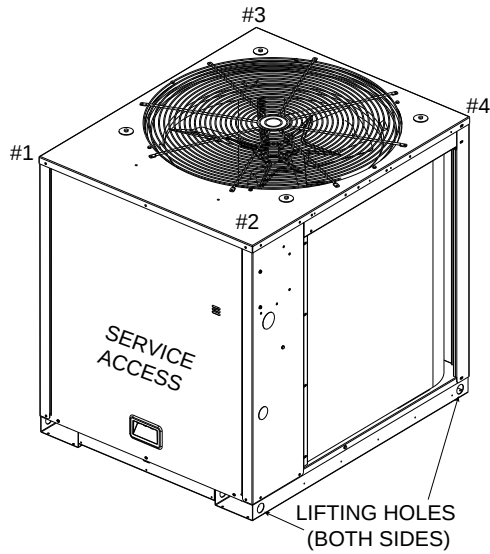
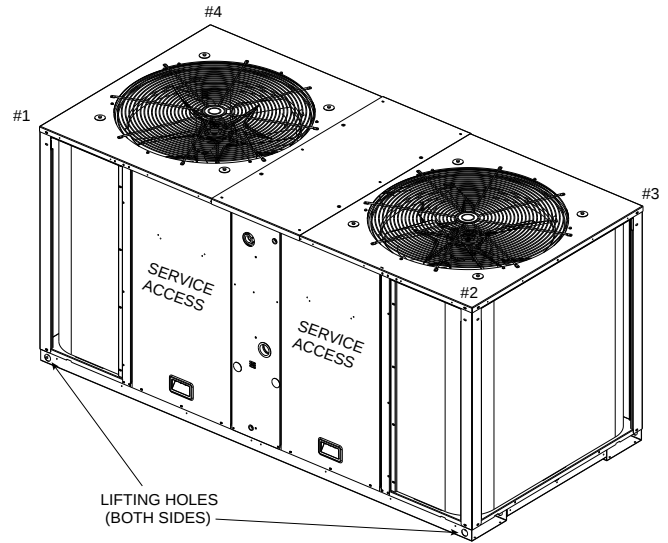


Figure 40. TWA180, 240



Air Handler

Table 75. 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	TWE0604*A/B	285	232	55	71	51	55	54	67	50	61
6	TWE0724*B	385	323	67	99	75	82	56	92	87	88
7.5	TWE0904*A/B	385	323	67	99	75	82	56	92	87	88
10	TWE1204*A/B	441	393	77	121	110	85	79	118	77	119
12.5	TWE1504*B	753	676	168	192	181	135	196	164	145	171
15	TWE1804*B	752	675	167	192	181	135	196	163	145	171
20	TWE2404*B	912	818	258	168	161	231	256	181	146	235

Table 76. 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	TWE0724*B	385	323	67	99	75	82	56	92	87	88
7.5	TWE0904*B	385	323	67	99	75	82	56	92	87	88
10	TWE1204*A/B	441	393	77	121	110	85	79	118	77	119
12.5	TWE1504*B	753	676	168	192	181	135	196	164	145	171
15	TWE1804*B	752	675	167	192	181	135	196	163	145	171
20	TWE2404*B	912	818	258	168	161	231	256	181	146	235

Figure 41. Vertical — TWE060, 072, 090, 120

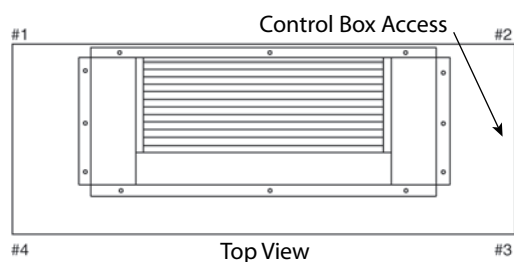


Figure 42. Vertical — TWE150, 180, 240

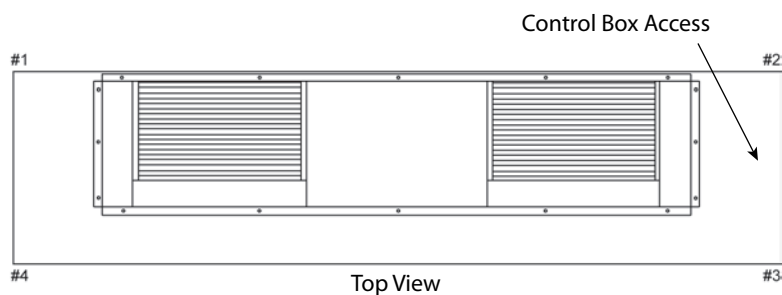


Figure 43. Horizontal — TWE060, 072, 090, 120

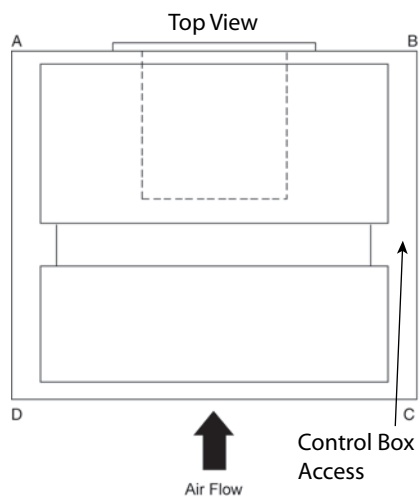
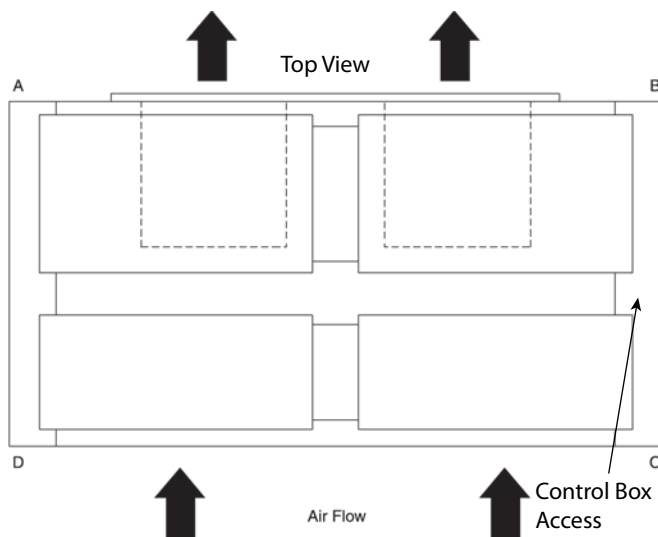


Figure 44. Horizontal — TWE150, 180, 240



Accessories

Table 77. Accessory weights (net lbs.)

Unit Used w/ 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	RIS Isolator Floor Mount
6	116	131	78	73	160	5	27/45	19.4	48	2
7.5	116	131	78	73	160	5	27/45	19.4	48	2
10	165	148	97	92	195	7	27/45	23.5	50	2
12.5	211	234	—	230	235	10	79/100	28.4	80	2
15	211	234	—	230	235	10	79/100	28.4	80	2
20	242	261	—	145	265	12	79/100	31.7	88	2
Unit Used w/ Tons	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	Service Valve	
6	6	12	6	21	4	1	23	2	5	
7.5	6	12	6	21	4	1	23	2	5	
10	7	12	6	28	4	1	23	2	5	
12.5	7	12	6	33	—	1	23	2	5	
15	7	12	6	55	—	1	23 (req. qty 2)	1 (req. qty 2)	5	
20	9	12	6	55	—	1	42 (req. qty 2)	1 (req. qty. 2)	5	



Mechanical Specifications

Condensing Units

Standard Options

General

- Weatherproofed steel mounting/lifting rails
- Hermetic scroll compressors
- Plate fin 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.

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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 (TWA072**A, TWA090**A, TWA120**A)

- 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
- Reversing valve
- 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 (TWA072**D, TWA090**D, TWA120**D, TWA180**D, TWA240**D)

- Two (2) separate and independent refrigerant circuits
- Each refrigeration circuit equipped 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
- Reversing valves
- Crankcase Heaters

- Internal temperature and current sensitive motor overloads
- Factory installed liquid line filter driers
- Phase loss/reverse rotation monitor
- 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)

Condenser Coil (Fin and Tube)

- 3/8" internally enhanced copper tube
- Mechanically bonded to lanced aluminum plate fins
- 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

- Centralized microprocessor
- 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
- Completely internally wired
- Numbered and colored wires
- Contactor pressure lugs or terminal block
- Unit external mounting location for disconnect device
- Single point power entry

Factory Installed Options**Hail Guards**

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

Black Epoxy Coated Condenser Coil (Fin and Tube)

- Thermoset vinyl coating
- Bonded to aluminum fin stock (prior to fin-stamping process)
- Economical protectant in mildly 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: Microprocessor

- Centralized processor



Mechanical Specifications

- 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

Zone Sensor

- Interfaces with microprocessor units
- Manual or automatic programmable
- 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 - 20 ton air handlers
- Adjustable belt drive
- Permanently lubricated bearings

Indoor Motor

- Adjustable motor sheaves (standard units)
- Fixed motors sheaves (SZVAV)
- 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 - 20 ton units



Mechanical Specifications

Factory Installed Options

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)
- 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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