Product Catalog

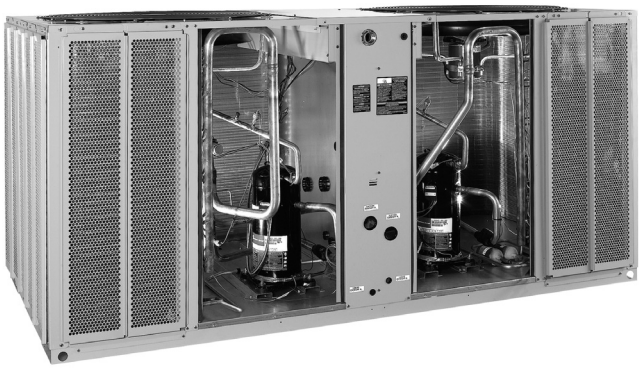
Split System Air Conditioners
Odyssey™ — TTA, TWE

Cooling Units — 6 - 25 Tons — 60 Hz
Air Handlers — 5 - 25 Tons — 60 Hz

March 2012

SS-PRC028-EN

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, Trane's 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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Features & Benefits

Standard Features

- 5-year Limited Compressor Warranty[1]
- 1-year Limited Parts Warranty
- Anti-Short Cycle Timer
- Colored and Numbered Wiring
- Convertible Airflow
- Crankcase Heaters
- Easy Access Low Voltage Terminal Board (LTB)
- Electromechanical or ReliaTel™ Microprocessor Controls
- Filters are Standard on all Units
- Foil-Faced and Edge Captured Insulation
- High Pressure Control
- IAQ Dual Sloped and Removable Drain Pans
- Liquid Line Refrigerant Drier
- Low Ambient Cooling to 0°F on Microprocessor Models[2]
- Low Ambient Cooling to 50°F on Electromechanical Models
- Low Pressure Control
- Belt Drive Motors
- Phase Loss/Reversal Monitor
- Quick Access Panels
- Single Point Power
- Single Side Service
- Standardized Components
- Thermal Expansion Valve
- Scroll Compressors
- FrostStat™ - Evaporator Defrost Control (EDC)
- Low Voltage Circuit Protection
- Compressor Discharge Temperature Limit (DTL)

Options

Note: *Refer to Model Number Description for option availability.*

Factory Installed Options

- ReliaTel Controls (Microprocessor)
- Black Epoxy Pre-Coated Coils
- Single Zone Variable Air Volume (SZVAV)
- 2-Speed Variable Frequency Drive (VFD)

Factory or Field Installed Options

- LonTalk® Communications Interface (LCI)
- Hail/Vandal Guards

Field Installed Options

- High Static Motor Kit[3]
- Low Static Motor Kit[3]
- Electric Heaters

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1 Not available for 20 and 25 ton units.
2 Modulating BAYLOAM recommended.
3 Available on standard units only. See “Accessories,” p. 12.

- Trane Communications Interface (TCI)
- Vibration Isolators
- Hot Gas Bypass[1]
- Zone Sensor
- Wireless Zone Sensor
- Thermostat
- Low Ambient

Other Benefits

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

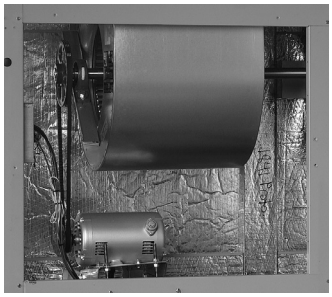
Standard Features

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 5-25 ton units offer standard belt drive motors to meet and exceed a wide range of airflow needs.



Colored And Numbered Wiring

Save time and money tracing wires and diagnosing the unit.

[1] Head Pressure Control recommended; modulating low ambient kit required.

Compressors

Odyssey contains 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 5-25 ton models and allow for efficient cooling utilizing 2-stages of compressor operation.

Controls – ReliaTel or Electromechanical

ReliaTel microprocessor controls provide unit control for heating, cooling and ventilating - utilizing input from sensors that measure indoor and outdoor temperature and other zone sensors. ReliaTel also provides outputs for building automation systems and expanded diagnostics. For a complete list of ReliaTel offerings, refer to the "Other Benefits" section within the Features and Benefits section of this catalog. For the simpler job that does not require a building automation system, or expanded diagnostics capabilities, Odyssey offers electromechanical controls. This 24-volt control includes the control transformer and contactor pressure lugs for power wiring.

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.

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.

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.

High Pressure Control

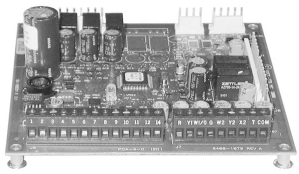
All units include High Pressure Control as standard.

Low Ambient Cooling

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

Low Voltage Connections

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



Phase Monitor/Reversal Protection

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

Quick-Access Panels

Remove a few screws for access to the standardized internal components and wiring.

Single Point Power

A single electrical connection powers the unit.

Single Side Service

Single side service is standard on all units.

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.

Variety of Options

Factory Installed Options

Note: *Refer to Model Number Description or Mechanical Specifications for availability.*

Black Epoxy Pre-Coated Condenser Coils

The pre-coated coils are an economical option for protection in mildly corrosive environments.

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 SZ VAV 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% (a) during full load cooling demands with the ability to fully modulate.

Units with SZ VAV 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.

2-Speed VFD

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

Factory or Field Installed Options

Note: *Refer to Model Number Description for option availability.*

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.

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.

Field Installed Options

Note: *Refer to Model Number Description or Mechanical Specifications for availability.*

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.

Trane Communication Interface (TCI)

This module, when applied with ReliaTel™, easily interfaces with Trane's Integrated Comfort™ System.

Electric Heaters

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

High/Low Static Motor

Available on many models, this high static motor accessory extends the capability of the standard unit.

Low Ambient

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

Zone Sensors/Thermostats

Available in wireless, programmable, automatic and manual styles.

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

Other Benefits

Airflow Distribution

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

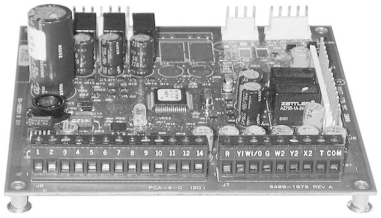
Easy to Install, Service and Maintain

Because today's owners are very cost-conscious when it comes to service and maintenance, the Trane Odyssey 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. 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.

Flexibility

Odyssey offers ultimate flexibility. Units are built to order in our standard "shortest in the industry" ship cycle time.

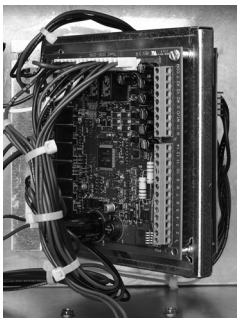
ReliaTel™ Controls



ReliaTel controls provide unit control for heating and cooling, utilizing input from sensors that measure outdoor and indoor temperature.

ReliaTel Control Logic Enhances Quality and Reliability

- prevents the unit from short cycling, considerably improving compressor life.
- ensures that the compressor will run for a specific amount of time which allows oil to return for better lubrication, enhancing the reliability of the compressor.



Odyssey units with ReliaTel reduces the number of components required to operate the unit, thereby reducing possibilities for component failure.

ReliaTel Makes Installing and Servicing Easy

ReliaTel eliminates the need for field installed time delay relays.

ReliaTel controls provide these functions as an integral part of the unit. The contractor no longer has to purchase these controls as options and pay to install them.

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 Odyssey unit through its paces. Simply place a jumper between Test 1 (T1) and Test 2 (T2) 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" 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.

Other ReliaTel Benefits

The ReliaTel built-in anti-short cycle 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 fails, the unit will continue to operate at predetermined temperature setpoint.

Intelligent Anticipation is a standard ReliaTel 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 same ReliaTel Board fits all Split System Cooling and Heat Pump models. This provides standardization of parts for contractors. Less money is tied up in inventory with ReliaTel.

Unit Cabinet

The compact cabinet takes up less room and is less costly to ship.

Rigorous Testing

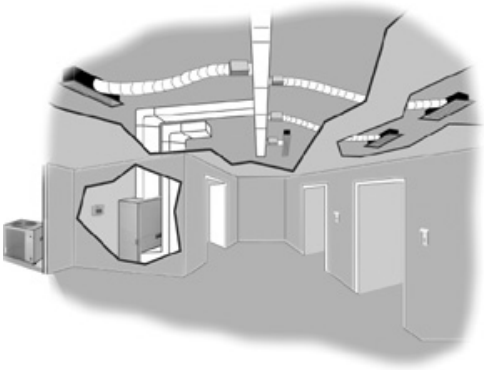
All of Odyssey's designs are rigorously rain tested to ensure water integrity. Actual shipping tests are performed to determine packaging requirements. Units are test shipped around the country to determine the best packaging. Factory shake and drop tests are used as part of the package design process 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.

VariTrac® – Building Automation System

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



Accessories

TTA Accessories

MODEL	DESCRIPTION	USED WITH
Coil Guard		
BAYGARD058A	Hail/Vandal Guard	TTA073D, TTA090D
BAYGARD059A		TTA120D/E/F
BAYGARD060A		TTA150E
BAYGARD061A		TTA180E/F, TTA240E/F
BAYGARD062A	Hail/Vandal Guard	TTA300F
Hot Gas Bypass		
BAYHGBP010B	Universal Hot Gas Bypass Kit	TTA073D - TTA300F
Isolators		
BAYISLT004A	Rubber Isolator Floor (blue)	TTA073D-TTA090D
BAYISLT005A	Rubber Isolator Floor (black)	TTA120D/E/F
BAYISLT009A	Rubber Isolator Floor (red)	TTA150E, TTA180E/F
BAYISLT010A	Rubber Isolator Floor (green)	TTA300F
BAYISLT023A	Steel Spring Isolator Floor (red)	TTA073D, TTA090D, TTA120D
BAYISLT024A	Steel Spring Isolator Floor (black)	TTA120E/F, TTA150E, TTA180E/F
BAYISLT025A	Steel Spring Isolator Floor (yellow)	TTA240E/F, TTA300F
Low Ambient		
BAYLOAMU01B[a][b][c][d]	On/Off Fan Control Mounted in External Enclosure (small cabinets)	TTA073-090 (all voltages)
BAYLOAMU02B[b][c][d]	On/Off Fan Control Mounted in Unit Control Box (large cabinets)	TTA120-300 (all voltages)
BAYLOAM335B[c]	Head Pressure Control w/ 208-230V 0.5 HP Hi-Eff Motor	TTA073D3, TTA090D3
BAYLOAM336B[c]	Head Pressure Control w/ 208-230V 1 HP Hi-Eff Motor	TTA120D3/E3/F3, TTA150E3, TTA180E3/F3, TTA240E3/F3, TTA300F3
BAYLOAM435B[c]	Head Pressure Control w/ 380-460V 60 or 50hz 0.5HP Hi-Eff Motor	TTA061DD, TTA073D4, TTA076DD, TTA090D4
BAYLOAM436B[c]	Head Pressure Control w/ 380-460V 60 or 50hz 1 HP Hi-Eff Motor	TTA120D4/E4/F4, TTA150E4, TTA180E4/F4, TTA240E4/F4, TTA300F4
BAYLOAMW36B[c]	Head Pressure Control w/ 575V 1 HP Hi-Eff Motor	TTA120DW/EW/FW, TTA150EW, TTA180EW/FW, TTA240EW/FW, TTA300FW
BAYLOTR001A[e]	Transducer Kit for Head Pressure Control (BAYLOAM335, 336, 435, 436, W36)	TTA120E/F, 150E
Trane Communication Interface		
BAYICSI003A	Comm 3/4 Communications Interface	TTA073D-TTA300F
LonTalk Communications Interface		
BAYLTCI002B	LonTalk Communications Interface	TTA073D-TTA300F

(a) Kit mounts external to the outdoor unit and operates by sensing ambient and liquid line temperatures.
(b) Cycles fan on/off, (no modulating).
(c) Quantity of 1 required for each fan (2 total for TTA 180-300).
(d) Reliatel requires onboard EDC function to be disabled when BAYLOAM is used, remove OA sensor from terminal J8-1&2
(e) BAYLOTR001 required when modulating BAYLOAM kits used with units that have 2 compressors and 1 condenser fan (TTA120E, TTA120F, TTA150E).

TWE Accessories

MODEL	DESCRIPTION	USED WITH
Base (Subbase)		
BAYBASE009A	Subbase	TWE061D/E
BAYBASE0010A		TWE090D/E
BAYBASE0011A		TWE120D/E
BAYBASE0012A		TWE150E, TWE180E
BAYBASE0013A		TWE240E, TWE300E
Drip Kit		
BAYDRKT006B	Drip Kit	TWE061D/E
BAYDRKT007B		TWE090D/E
BAYDRKT008B		TWE120D/E
BAYDRKT009B		TWE150E, TWE180E
BAYDRKT010B		TWE240E, TWE300E
High Static Motor Kits[a]		
BAYHSMT104B	1.5HP (230/1) with Motor Sheave, Fan Sheave and Belt	TWE061D1/E1
BAYHSMT105B	1.5HP (230-460/3) with Motor Sheave, Fan Sheave and Belt	TWE061D3-4/E3-4
BAYHSMT106B	1.5HP (575/3) with Motor Sheave, Fan Sheave and Belt	TWE061DW
BAYHSMT107B	2 HP (230/1) with Motor Sheave, Fan Sheave and Belt	TWE090D1/E1
BAYHSMT108B	2 HP (230/460/3) with Motor Sheave, Fan Sheave and Belt	TWE090D3/E3
BAYHSMT109B	2 HP (575/3) with Motor Sheave, Fan Sheave and Belt	TWE090DW
BAYHSMT110B	3 HP (230/460/3) with Motor Sheave, Fan Sheave and Belt	TWE090D3/E3
BAYHSMT111B	3 HP (575/3) with Motor Sheave, Fan Sheave and Belt	TWE090DW
BAYHSMT112B	3 HP (230/460/3) with Motor Sheave, Fan Sheave and Belt	TWE120D3/E3
BAYHSMT113B	3 HP (575/3) with Motor Sheave, Fan Sheave and Belt	TWE120DW/EW
BAYHSMT114B	3 HP (230/460/3) with Motor Sheave, Fan Sheave and Belt	TWE150E3
BAYHSMT115B	3 HP (575/3) with Motor Sheave, Fan Sheave and Belt	TWE150EW
BAYHSMT116B	5 HP (230/3) with Motor Sheave, Fan Sheave and Belt	TWE150E3
BAYHSMT117B	5 HP (460/3) with Motor Sheave, Fan Sheave and Belt	TWE150E3[b]
BAYHSMT118B	5 HP (575/3) with Motor Sheave, Fan Sheave and Belt	TWE150EW
BAYHSMT119B	5 HP (208-230/3) with Motor Sheave and Fan Sheave (Stock Belt used)	TWE180E3
BAYHSMT120B	5 HP (460/380-415/3) with Motor Sheave and Fan Sheave (Stock Belt used)	TWE180E3[b]
BAYHSMT121B	5 HP (575/3) with Motor Sheave and Fan Sheave (Stock Belt used)	TWE180EW
BAYHSMT122B	7.5 HP (230/460/3) with Motor Sheave, Fan Sheave and Belt	TWE240E3-4
BAYHSMT123B	7.5 HP (575/3) with Motor Sheave, Fan Sheave and Belt	TWE240EW
Isolators		
BAYISLT004A[b][c][d][e]	Rubber Isolator Floor (blue)	TWE061D-TWE120E
BAYISLT009A[b][c][d]	Rubber Isolator Floor (red)	TWE150E, TWE180E
BAYISLT010A[b][c][d]	Rubber Isolator Floor (green)	TWE240E, TWE300E
BAYISLT012B[d]	Rubber Isolator Suspended (red/green)	TWE150E, TWE180E
BAYISLT013B[d][e]	Rubber Suspended (red/green)	TWE061D/E
BAYISLT014A[d][e]	Rubber Suspended (green)	TWE090D/E
BAYISLT015B[d][e]	Rubber Suspended (green/black)	TWE120D/E
BAYISLT016B[d]	Rubber Suspended (red/green)	TWE240E, TWE300E

TWE Accessories (continued)

MODEL	DESCRIPTION	USED WITH
BAYISLT019A[b][c][d]	Steel Spring Isolator Floor (red)	TWE061D/E, TWE090D/E, TWE120D/E
BAYISLT021A[b][c][d]	Steel Spring Isolator Floor (black)	TWE150E, TWE180E
BAYISLT032A[b][c][d]	Steel Spring Isolator Floor (black/yellow)	TWE240E, TWE300E
BAYISLT028A[d]	Steel Spring Isolator Suspended (tan)	TWE061D/E
BAYISLT029A[d]	Steel Spring Isolator Suspended (red)	TWE090D/E, TWE120D/E
BAYISLT030A[d]	Steel Spring Isolator Suspended (black)	TWE150E, TWE180E
BAYISLT031B[d]	Steel Spring Isolator Suspended (black/yellow)	TWE240E, TWE300E
Low Static Drive Kit[a]		
BAYLSMT001B	Low Static Drive Kit	TWE240E
Plenum		
BAYPLNM015B[f]	Discharge Plenum & Grille	TWE061D/E
BAYPLNM016B[f]		TWE090D/E
BAYPLNM017B[f]		TWE120D/E
BAYPLNM018B[f]	Discharge Plenum/Hydronic Coil Plenum & Grille	TWE150E, TWE180E
BAYPLNM019B[f]		TWE240E, TWE300E
BAYPLNM020B[f]	Hydronic Coil Discharge Plenum & Grille	TWE061D/E
BAYPLNM021B[f]		TWE090D/E
BAYPLNM022B[f]		TWE120D/E
BAYPLNM030A[f]	Electric Heat Discharge Plenum & Grille	TWE061D/E
BAYPLNM031A[f]		TWE090D/E
BAYPLNM032A[f]		TWE120D/E
BAYPLNM033A[f]		TWE150E, TWE180E
BAYPLNM034A[f]		TWE240E, TWE300E
Return Air Grille		
BAYGRLE001A	Return Air Grille	TWE061D/E
BAYGRLE002A		TWE090D/E
BAYGRLE003A		TWE120D/E
BAYGRLE004A		TWE150E, TWE180E
BAYGRLE005A		TWE240E, TWE300E
Transformer[a]		
BAYTFMR011B[g]	75va transformer (230V)	TWE090D3, TWE090E3, TWE120D3, TWE120E3
BAYTFMR012B[g]	75va transformer (460/575V)	TWE090D3/W, TWE090E3 TWE120D3/W, TWE120E3/W
Water Kits		
BAYWATR022A[f]	Steam Coil Enclosure	TWE061D/E
BAYWATR023A[f]		TWE090D/E
BAYWATR024A[f]		TWE120D/E
BAYWATR025A[f]		TWE150E, TWE180E
BAYWATR026A[f]		TWE240E, TWE300E

TWE Accessories (continued)

MODEL	DESCRIPTION	USED WITH
BAYWATR027A[f]		TWE061D/E
BAYWATR028A[f]		TWE090D/E
BAYWATR029A[f]	Hot Water Coil Enclosure	TWE120D/E
BAYWATR030A[f]		TWE150E, TWE180E
BAYWATR031A[f]		TWE240E, TWE300E
Wire Kit[a]		
BAYWRKT002B[h]	180° Blower Discharge Reversal Kit	TWE061D-TWE120E

(a) Used on standard air handlers only.
(b) When the air handler is in the vertical position and close proximity trapping of condensate is required, use of subbase is required.
(c) Requires use of subbase accessory.
(d) In units with steam or hot water coils applied vertically or horizontally, check IOM for proper Isolator Kit selection.
(e) Do not use if blower will operate less than 600 RPM.
(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

MODEL	DESCRIPTION	USED WITH
6-10 Ton Electric Heater Selection		
BAYHTRL106A	4.33/5.76 KW Heater 208/240/1 Phase	TWE061D1-TWE120E1
BAYHTRL112A	8.65/11.52 KW Heater 208/240/1 Phase	TWE061D1-TWE120E1
BAYHTRL117A	12.98/17.28 KW Heater 208/240/1 Phase	TWE061D1-TWE120E1
BAYHTRL123A	17.31/23.04 KW Heater 208/240/1 Phase	TWE061D1-TWE120E1
BAYHTRL129A	21.63/28.80 KW Heater 208/240/1 Phase	TWE061D1-TWE120E1
BAYHTRL305A	3.76/5.00 KW Heater 208/240/3 Phase	TWE061D3-TWE120E3
BAYHTRL310A	7.48/9.96 KW Heater 208/240/3 Phase	TWE061D3-TWE120E3
BAYHTRL315A	11.24/14.96 KW Heater 208/240/3 Phase	TWE061D3-TWE120E3
BAYHTRL325A	18.72/24.92KW Heater 208/240/3 Phase	TWE061D3-TWE120E3
BAYHTRL335A	26.20/34.88 KW Heater 208/240/3 Phase	TWE061D3-TWE120E3
BAYHTRL405A	5.00 KW Heater 460/3 Phase	TWE061D4-TWE120E4
BAYHTRL410A	9.96 KW Heater 460/3 Phase	TWE061D4-TWE120E4
BAYHTRL415A	14.96 KW Heater 460/3 Phase	TWE061D4-TWE120E4
BAYHTRL425A	24.92 KW Heater 460/3 Phase	TWE061D4-TWE120E4
BAYHTRL435A	34.88 KW Heater 460/3 Phase	TWE061D4-TWE120E4
BAYHTRLW05A	5 KW Heater 575/3 Phase	TWE061DW-TWE120EW
BAYHTRLW10A	9.96 KW Heater 575/3 Phase	TWE061DW-TWE120EW
BAYHTRLW15A	14.96 KW Heater 575/3 Phase	TWE061DW-TWE120EW
BAYHTRLW25A	24.92 KW Heater 575/3 Phase	TWE061DW-TWE120EW
BAYHTRLW35A	34.88 KW Heater 575/3 Phase	TWE061DW-TWE120EW
12½ - 25 Ton Electric Heater Selection		
BAYHTRM310A	7.51/10.0 KW Heater 208/230 3 Phase	TWE150E3-TWE300E3
BAYHTRM320A	14.96/19.92 KW Heater 208/230 3 Phase	TWE150E3-TWE2300E3
BAYHTRM330A	22.47/29.92 KW Heater 208/230 3 Phase	TWE150E3-TWE300E3
BAYHTRM350A	37.44/49.84 KW Heater 208/230 3 Phase	TWE150E3-TWE300E3
BAYHTRM410A	10.0 KW Heater 460/3 Phase	TWE150E4-TWE300E4
BAYHTRM420A	19.92 KW Heater 460/3 Phase	TWE150E4-TWE300E4
BAYHTRM430A	29.92 KW Heater 460/3 Phase	TWE150E4-TWE300E4
BAYHTRM450A	49.84 KW Heater 460/3 Phase	TWE150E4-TWE300E4
BAYHTRMW10A	10.0 KW Heater 575/3 Phase	TWE150EW-TWE300EW
BAYHTRMW20A	19.92 KW Heater 575/3 Phase	TWE150EW-TWE300EW
BAYHTRMW30A	29.92 KW Heater 575/3 Phase	TWE150EW-TWE300EW
BAYHTRMW50A	49.84 KW Heater 575/3 Phase	TWE150EW-TWE300EW

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 Trane Representative.

180° Blower Rotation

The 5, 7½, and 10 ton 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 installer's guide.

Note: *2-speed VFD and SZVAV air handlers cannot be rotated.*

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 1. Typical Split System Application

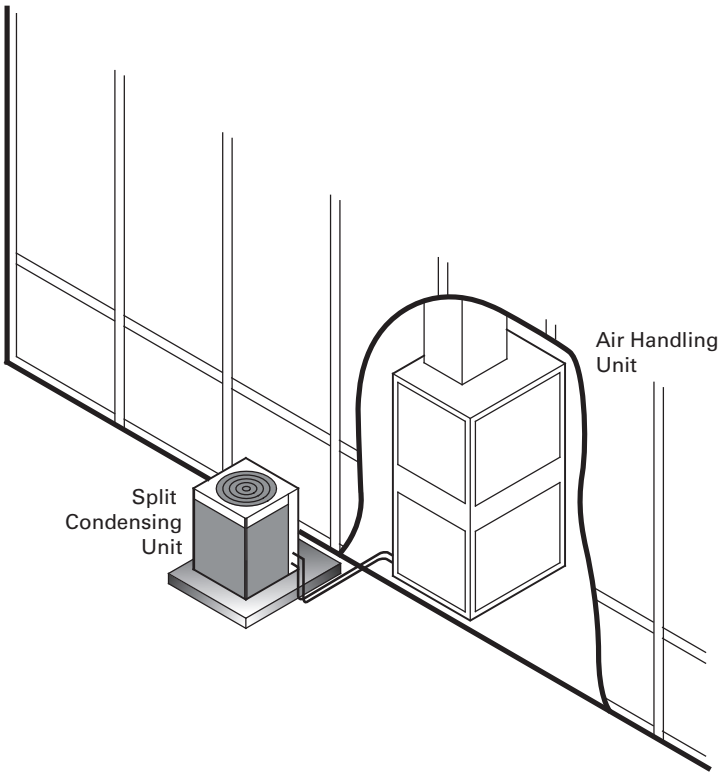


Figure 2. Typical Horizontal Air Handler Application

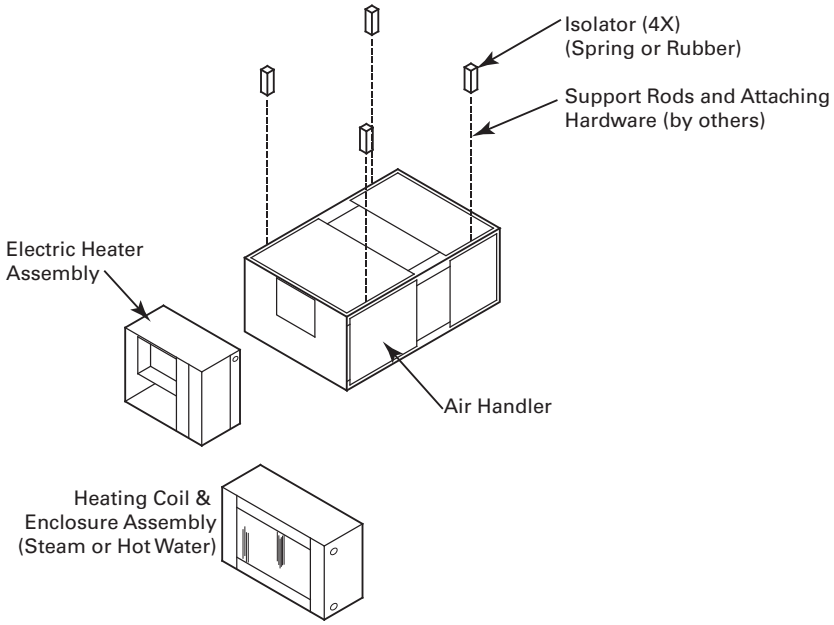
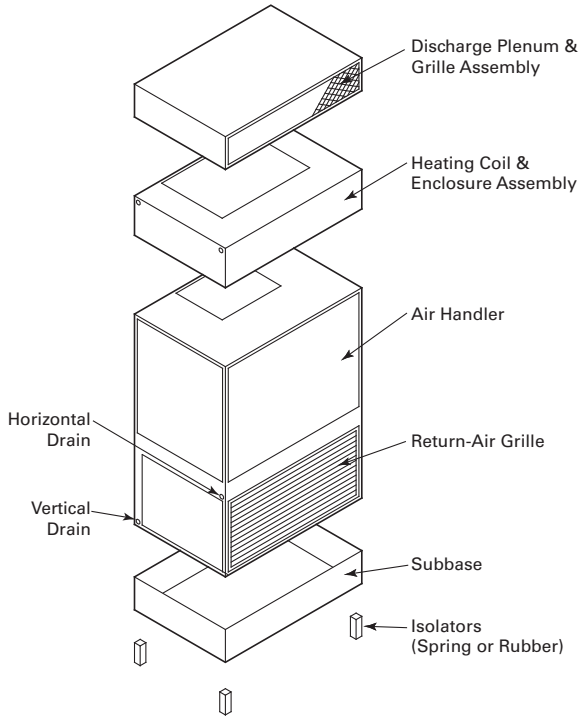


Figure 3. Typical Vertical Air Handler Application



Selection Procedure

Cooling Capacity

1. Calculate the building's total and sensible cooling loads at design conditions. Use the Trane calculation form or any other standard accepted method.
2. Size the equipment using Table 7, p. 27 to Table 17, p. 37. Match the cooling loads at design conditions.

Example: The following are the building cooling requirements:

a. Electrical Characteristics: 460/60/3

b. Summer Design Conditions:
Entering Evaporator Coil: 80°F DB/67°F WB, Outdoor Ambient: 95°F

c. Total Cooling Load: 86 MBh

d. Sensible Cooling Load: 60 MBh

e. Airflow: 3000 cfm
External Static Pressure: 0.77 inches of water gauge

Table 7, p. 27 shows that TTA090D with TWE090D has a gross cooling capacity of 94.8 MBh and 72.7 MBh sensible capacity at 95°F DB ambient and 3000 cfm with 80°F DB/67° F WB air entering the evaporator.

To find the net cooling capacities, fan motor heat must be subtracted. Determine the total unit static pressure:

External Static: 0.77 in.
Standard Filter: 0.10 in.
Supplementary Electric Heat: 0.23 in.
Total Static Pressure 1.10 in.

Note: *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 inches, Table 39, p. 59 shows 1.97 Bhp (high static drive kit required).

Note: *The formula below the table can be used to calculate Fan Motor Heat:*
3.15 X Bhp = MBh
3.15 X 1.97 = 6.2 MBh
Net Total Cooling Capacity = 94.8 MBh - 6.2 = 88.6 MBh
Net Sensible Cooling Capacity = 72.7 MBh - 6.2 = 66.5 MBh

Heating Capacity

1. Calculate the building heating load using the Trane calculation form or any other standard accepted method.
2. Size the system heating capacity to match the calculated building heating load. The following are building heating requirements:

a. Total Heating Load: 97.0 MBh

b. 3000 cfm

c. Electric Supplementary Heaters

From Table 57, p. 77, the 34.88 kW heater has a capacity of 119,045 Btuh. From Table 67, p. 95, the 34.88 kW at 460v indicates the heater model number is BAYHTRL435A. This heater will adequately cover the building's heating requirement.

Air Delivery Selection

External static pressure drop through the air distribution system has been calculated to be 0.77 inches of water gauge. From Table 56, p. 76 static pressure drop through the electric heater is 0.23 inches of water (0.77 + 0.23 = 1.00 in.). Enter Table 39, p. 59 for TWE090D at 3000 cfm and 1.00 static pressure. The high static motor at 1020 RPM will give the desired airflow.

Model Number Descriptions

TTA	240	F	3	00	*	*
1 2 3	4 5 6	7	8	9 10	11	12

All products are identified by a multiple-character model number that precisely identifies a particular type of unit. An explanation of the alphanumeric identification code is provided. Its use will enable the owner/operator, installing contractors, and service engineers to define the operation, specific components, and other options for any specific unit.

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

DIGITS 1 - 3: Product Type

TTA = Split System Cooling

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

073 = 6 Tons
090 = 7½ Tons
120 = 10 Tons
150 = 12½ Tons
180 = 15 Tons
240 = 20 Tons
300 = 25 Tons

DIGIT 7: Major Development Sequence

D = Single Circuit
E = Dual Circuit
F = Manifold Scroll Compressors

DIGIT 8: Electrical Characteristics

3 = 208-230/60/3
4 = 460/60/3
W = 575/60/3
K = 380/60/3

DIGITS 9 - 10: Factory Installed Options

00 = Packed Stock
0S = Black Epoxy Coated Coil
0R = ReliaTel, no LCI Board
0T = ReliaTel, no LCI Board with Black Epoxy Coated Coil
0U = ReliaTel, with LCI Board
0W = ReliaTel, with LCI Board and Black Epoxy Coated Coil
H0 = Hail Guard with Packed Stock
HS = Hail Guard with Black Epoxy Coated Coil
HR = Hail Guard with ReliaTel, no LCI Board
HT = Hail Guard with ReliaTel, no LCI Board with Black Epoxy Coated Coil
HU = Hail Guard with ReliaTel, with LCI Board
HW= Hail Guard with ReliaTel, with LCI Board and Black Epoxy Coated Coil

DIGITS 11: Minor Design Sequence

* = Current Design Sequence[1]

DIGITS 12: Service Digit

* = Current Design Sequence[1]

[1] * = sequential alpha character

T W E	2 4 0	E	3	0 0		*
1 2 3	4 5 6	7	8	9 10	11	12

All products are identified by a multiple-character model number that precisely identifies a particular type of unit. An explanation of the alphanumeric identification code is provided. Its use will enable the owner/operator, installing contractors, and service engineers to define the operation, specific components, and other options for any specific unit.

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

DIGITS 1 - 3: Product Type

TWE = Split System Heat Pump/Cooling Air Handler

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

061 = 5Tons
090 = 7½ Tons
120 = 10 Tons
150 = 12½ Tons
180 = 15 Tons
240 = 20 Tons
300 = 25 Tons

DIGIT 7: Major Development Sequence

D = Single Circuit
E = Dual Circuit

DIGIT 8: Electrical Characteristics

1 = 208-230/60/1
3 = 208-230/60/3
4 = 460/60/3
W = 575/60/3
K = 380/60/3

DIGITS 9 - 10: Factory Installed Options

00 = Packed Stock (Standard)
03 = 2-Speed Variable Frequency Drive (VFD) Standard Motor Electromechanical Condenser only
04 = 2-Speed Variable Frequency Drive (VFD) Oversized Motor Electromechanical Condenser only
R3 = Single Zone Variable Air Volume (VFD) Standard Motor - Reliatel Cond only
R4 = Single Zone Variable Air Volume (VFD) Oversized Motor - Reliatel Cond only

DIGITS 11: Minor Design Sequence

* = Current Design Sequence[1]

DIGITS 12: Service Digit

* = Current Design Sequence[1]

[1] * = sequential alpha character

General Data

Table 1. General Data — 6-12½ Ton Condensing Units — 60 Hz

	6 Tons	7½ Tons	10 Tons			12½ Tons
	Single Compressor TTA073D3, D4, DK, DW	Single Compressor TTA090D3, D4, DK, DW	Single Compressor TTA120D3, D4, DK, DW	Dual Compressor TTA120E3, E4, EK, EW	Manifolded Compressor TTA120F3, F4, FW	Dual Compressor TTA150E3, E4, EK, EW
Cooling Performance						
Gross Cooling Capacity						
Matched Air Handler	77,000	94,000	124,000	122,000	123,000	154,000
Condensing Unit Only	74,000	90,000	112,000	110,000	114,000	144,000
ARI Net Cooling Capacity	75,000	92,000	120,000	119,000	120,000	150,000
Efficiency						
Matched Air Handler (EER)	11.2	11.2	11.2	11.2	11.2	11.0
Condensing Unit Only (EER)	12.5	12.4	12.2	12.2	12.2	11.7
System Integrated Part Load Value (IPLV)	N/A	N/A	N/A	12.0	14.5	13.4
System (IEER)	13.0	12.2	12.2	11.7	14.5	13.2
Condensing Unit Only (IPLV)	N/A	N/A	N/A	15.9	17.2	15.9
System kW/Condensing Unit kW	6.70/5.92	8.22/7.26	10.72/9.18	10.62/9.01	10.72/9.35	13.63/12.31
Compressor						
Type	Scroll	Scroll	Scroll	Scroll	Manifolded Scrolls	Scroll
No./Tons	1/5.6	1/6.9	1/8.6	2/4.2	2/4.3	2/5.6
System Data						
No. Refrigerant Circuits	1	1	1	2	1	2
Suction Line (in.) OD	1 1/8	1 3/8	1 3/8	1 1/8	1 3/8	1 1/8
Liquid Line (in.) OD	1/2	5/8	1/2	1/2	1/2	1/2
Outdoor Coil - Type	Lanced	Lanced	Lanced	Lanced	Lanced	Lanced
Tube Size (in.) OD	0.375	0.375	0.375	0.375	0.375	0.375
Face Area (sq ft)	19.2	19.2	24.0	24.0	24.0	30.6
Rows/FPI	2/18	2/18	2/18	2/18	2/18	2/18
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter (in.)	1/26	1/26	1/28	1/28	1/28	1/28
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1	Direct/1	Direct/1
CFM	6530	6530	9600	9600	9600	9800
No. Motor/HP	1/0.5	1/0.5	1/1	1/1	1/1	1/1
Motor RPM	1100	1100	1100	1100	1100	1100
Refrigerant Charge (Field Supplied)						
(lbs of R410A)	15.7	17.6	22.5	24.8	21.2	30.7
Shipping Dimensions (HxWxD)	43.54″ x 43″ x 36.5″	43.54″ x 43″ x 36.5″	43.49″ x 53″ x 40.5″			49.48″ x 53.25″ x 41″

Table 2. General Data — 15 - 25 Ton Condensing Units — 60 Hz

	15 Tons		20 Tons		25 Ton
	Dual Compressor TTA180E3, E4, EK, EW	**Manifolded Compressor TTA180F3, F4, FK, FW**	**Dual Compressor TTA240E3, E4, EK, EW**	**Manifolded Compressor TTA240F3, F4, FK, FW**	**Manifolded Compressor TTA300F3, F4, FK, FW**
Cooling Performance					
Gross Cooling Capacity					
Matched Air Handler	185,000	186,000	263,000	254,000	307,000
Condensing Unit Only	178,000	182,000	270,000	266,000	304,000
ARI Net Cooling Capacity	180,000	180,000	254,000	246,000	292,000
Efficiency					
Matched Air Handler (EER)	11.0	11.0	10.0	10.0	10.0
Condensing Unit Only (EER)	12.6	12.8	12.1	12.0	12.4
System Integrated Part Load Value (IPLV)	13.2	13.4	11.2	12.0	
System (IEER)	12.9	12.5	10.9	11.9	11.0
Condensing Unit Only (IPLV)	17.3	15.9	15.9	16.0	
System kW/ Condensing Unit (kW)	16.36/14.13	16.37/14.22	25.40/22.32	24.6/22.17	29.19/24.49
Compressor					
Type	Scroll	Manifolded Scrolls	Scroll	Manifolded Scroll	Manifolded Scroll
No./Tons	2/6.9	2/6.9	2/10.1	2/10.1	2/11.4
System Data					
No. Refrigerant Circuits	2	1	2	1	1
Suction Line (in.) OD	1 3/8	1 5/8	1 3/8	1 5/8	2 1/8
Liquid Line (in.) OD	1/2	5/8	1/2	5/8	5/8
Outdoor Coil - Type	Lanced	Lanced	Lanced	Lanced	Lanced
Tube Size (in.) OD	0.375	0.375	0.375	0.375	0.375
Face Area (sq ft)	52.6	52.6	52.6	52.6	57.05
Rows/FPI	2/18	2/18	2/18	2/18	3/18
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter (in.)	2/28	2/28	2/28	2/28	2/28
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1	Direct/1
CFM	19500	19500	19500	19500	19500
No. Motor/HP	2/1	2/1	2/1	2/1	2/1
Motor RPM	1100	1100	1100	1100	1100
Refrigerant Charge (Field Supplied)					
(lbs of R410A)	39	37.6	43.8	41.3	62.5
Shipping Dimensions (HxWxD)	49.48” x 94.75” x 47”		49.48” x 94.75” x 47”		55.48" x 94.75" x 47"

Table 3. General Data — 5-10 Ton Air Handler — 60 Hz

	5 Tons		7½ Tons		10 Tons			
	Single Circuit TWE061D1, D3, D4, DW, DK	**Dual Circuit, TWE061E1, E3, E4**	**Single Circuit TWE090D1, D3, DW, DK**	**Dual Circuit, TWE090E1, E3**	**Single Circuit TWE120D1**	**Single Circuit, TWE120D3, D4[a], DW, DK**	**Dual Circuit, TWE120E1**	**Dual Circuit, TWE120E3, E4[a], EW, EK**
System Data								
No. Refrigerant Circuits	1	2	1	2	1	1	2	2
Suction Line Connection (in.) OD	1 1/8	1 1/8	1 3/8	1 1/8	1 3/8	1 3/8	1 1/8	1 1/8
Liquid Line Connection (in.) OD	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Indoor Coil - Type	Lanced	Lanced	Lanced	Lanced	Lanced	Lanced	Lanced	Lanced
Tube Size (in.)	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375
Face Area (sq. ft.)	5.0	5.0	8.1	8.1	11.2	11.2	11.2	11.2
Rows/FPI	4/14	4/14	4/14	4/14	4/14	4/14	4/14	4/14
Refrigerant Control	Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve
Drain Connection Size (in.)	1 PVC	1 PVC	1 PVC	1 PVC	1 PVC	1 PVC	1 PVC	1 PVC
Indoor Fan - Type	Centrifugal	Centrifugal	Centrifugal	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	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	Belt/ Adjustable	Belt/ Adjustable	Belt/ Adjustable
CFM	2000	2000	3000	3000	4000	4000	4000	4000
No. Motors	1	1	1	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	2.0	2.0/3.0	2.0	2.0/3.0
Motor RPM	1725	1725	1725	1725	1725	1725	1725	1725
Motor Frame Size	56	56	56H	56H	56HZ	56HZ	56HZ	56HZ
Filters - Type/ Furnished	Throwaway/ Yes	Throwaway/ Yes	Throwaway/ Yes	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	(4) 16 X 25 X 1	(4) 16 X 25 X 1	(4) 16 X 25 X 1	(4) 16 X 25 X 1
Shipping Dimensions (HxWxD)	52.53” x 25.5” x 41.5”		58.6” x 28.5” x 51”		58.55” x 28.5” x 67”			

(a) 460V is ONLY available with SZVAV and 2-Speed VFD models.

Table 4. General Data — 12½ - 25 Ton Air Handler — 60 Hz

	12½ Tons	15 Tons	20 Tons	25 Tons
	Dual Circuit, TWE150E3, E4[a], EW, EK	**Dual Circuit, TWE180E3, E4[a], EW, EK**	**Dual Circuit, TWE240E3, E4, EW, EK**	**Dual Circuit, TWE300E3, E4, EW, EK**
System Data				
No. Refrigerant Circuits	2	2	2	2
Suction Line Connection (in.) OD	1 3/8	1 3/8	1 3/8	1 3/8
Liquid Line Connection (in.) OD	1/2	1/2	5/8	5/8
Indoor Coil - Type	Lanced	Lanced	Lanced	Lanced
Tube Size (in.)	0.375	0.375	0.375	0.375
Face Area (sq. ft.)	16.3	16.3	21.7	21.7
Rows/FPI	4/14	4/14	3/14	4/14
Refrigerant Control	Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve
Drain Connection Size (in.)	1 PVC	1 PVC	1 PVC	1 PVC
Indoor Fan - Type	Centrifugal	Centrifugal	Centrifugal	Centrifugal
No. Used/Diameter x Width (in.)	2/15 x 15	2/15 x 15	2/15 x 15	2/15 x 15
Drive Type/No. Speeds	Belt/Adjustable	Belt/Adjustable	Belt/Adjustable	Belt/Adjustable
CFM	5000	6000	8000	10000
No. Motors	1	1	1	1
Motor HP - Standard/Oversized	2.0/3.0/5.0	3.0/5.0	3.0/5.0/7.5	7.5
Motor RPM	1755	1728/1750	1750/3490	3490
Motor Frame Size	145T	56HZ	184T	184T
Filters - Type/Furnished	Throwaway/Yes	Throwaway/Yes	Throwaway/Yes	Throwaway/Yes
(No.)/Size Recommended	(8) 15 X 20 X 2	(8) 15 X 20 X 2	(4) 16 X 25 X 2 (4) 16 X 20 X 2	(4) 16 X 25 X 2 (4) 16 X 20 X 2
Shipping Dimensions (HxWxD)	73.7" x 31.25" x 83"	73.7" x 31.25" x 83"	76.53" x 33.75" x 95"	76.53" x 33.75" x 95"

(a) 460V is ONLY available with SZVAV and 2-Speed VFD models.

Table 5. SZVAV and 2-Speed VFD Air Handler - Indoor Fan General Data [a]

	12½ Tons	15 Tons	20 Tons	25 Tons
	Dual Circuit, TWE150E***	**Dual Circuit, TWE180E*****	**Dual Circuit, TWE240E*****	**Dual Circuit, TWE240E*****
Indoor Fan - Type	Centrifugal	Centrifugal	Centrifugal	Centrifugal
No. Used/Diameter x Width (in.)	2/15 x 15	2/15 x 15	2/15 x 15	2/15 x 15
Drive Type/No. Speeds	Belt/VFD Variable	Belt/VFD Variable	Belt/VFD Variable	Belt/VFD Variable
CFM	5000	6000	8000	10000
No. Motors	1	1	1	1
Motor HP - Standard/Oversized	2.0/5.0	3.0/5.0	5.0/7.5	7.5[b]
Motor RPM	1755/3450	1725/3450	3450/3470	3470
Motor Frame Size	56HZ	56HZ	56HZ/184T	184TZ

(a) See Table 3, p. 24 for 10 Ton SZVAV/2-Speed Data
(b) Standard motor only

Performance Data

Table 6. Gross Cooling Capacities (MBH) 6 Tons TTA073D Condensing Unit with 7.5 Tons TWE090D Standard Air Handler (IP)

		Ambient Temperature (°F)																	
		85						95						105					
	Ent DB	Entering Wet Bulb (°F)																	
		61		67		73		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
2160	75	72.1	59.9	78.9	46.4	86.3	31.8	68.3	58.1	75.1	44.9	82.2	30.3	64.6	56.3	71.1	43.2	77.8	28.8
	80	72.7	70.7	79.2	56.9	86.7	42.9	69.4	69.1	75.4	55.2	82.5	41.3	66.0	66.0	71.3	53.6	78.1	39.7
	85	75.9	75.9	79.5	67.5	86.9	53.6	72.9	72.9	75.7	65.9	82.8	52.1	69.7	69.7	71.8	64.1	78.4	50.4
	90	79.8	79.8	80.5	78.3	87.1	64.3	76.7	76.7	76.9	76.7	83.0	62.7	73.3	73.3	73.3	73.3	78.6	61.1
2400	75	73.4	63.0	80.1	48.5	87.4	32.3	69.5	61.2	76.3	46.9	83.1	30.8	65.8	59.4	72.1	45.3	78.7	29.3
	80	74.3	74.3	80.4	59.8	87.9	44.4	71.2	71.2	76.5	58.1	83.6	42.9	68.0	68.0	72.4	56.5	79.1	41.3
	85	78.3	78.3	80.9	71.3	88.2	56.2	75.1	75.1	77.1	69.7	83.9	54.7	71.7	71.7	73.0	68.0	79.4	53.0
	90	82.3	82.3	82.3	82.3	88.4	68.0	79.0	79.0	79.0	79.0	84.1	66.1	75.5	75.5	75.5	75.5	79.6	64.4
2640	75	74.6	66.0	81.2	50.6	88.2	32.8	70.6	64.2	77.2	49.0	83.9	31.3	66.8	62.4	73.0	47.3	79.4	29.8
	80	76.2	76.2	81.3	62.3	88.9	46.0	73.0	73.0	77.4	60.7	84.5	44.4	69.6	69.6	73.2	59.0	80.0	42.8
	85	80.4	80.4	82.1	75.0	89.2	58.8	77.0	77.0	78.2	73.4	84.9	57.2	73.5	73.5	74.2	71.7	80.3	55.6
	90	84.5	84.5	84.4	84.4	89.5	71.1	81.0	81.0	81.0	81.0	85.1	69.5	77.4	77.4	77.3	77.3	80.6	67.8
2880	75	75.6	68.9	82.0	52.6	89.0	33.3	71.5	67.1	78.0	51.0	84.6	31.8	67.7	65.3	73.7	49.3	80.0	30.3
	80	77.9	77.9	82.3	64.9	89.7	47.4	74.6	74.6	78.2	63.3	85.3	45.9	71.1	71.1	74.0	61.5	80.7	44.2
	85	82.1	82.1	83.3	78.7	90.1	61.3	78.7	78.7	79.4	77.1	85.7	59.7	75.1	75.1	75.0	75.0	80.9	57.7
	90	86.4	86.4	86.4	86.4	90.5	74.4	82.8	82.8	82.7	82.7	86.1	72.8	79.0	79.0	79.0	79.0	81.5	71.1

		Ambient Temperature (°F)											
		115						125					
	Ent DB	Entering Wet Bulb (°F)											
		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
2160	75	60.7	54.5	66.8	41.5	73.1	27.1	56.5	52.6	62.1	39.6	68.0	25.4
	80	62.6	62.6	67.0	51.8	73.5	38.0	58.9	58.9	62.4	49.9	68.3	36.2
	85	66.2	66.2	67.6	62.4	73.7	48.7	62.3	62.3	63.0	60.4	68.5	46.9
	90	69.7	69.7	69.7	69.7	73.9	59.2	65.7	65.7	65.7	65.7	68.8	57.3
2400	75	61.8	57.6	67.7	43.5	73.9	27.6	57.5	55.6	62.9	41.7	68.7	25.9
	80	64.4	64.4	67.9	54.5	74.4	39.6	60.5	60.5	63.2	52.5	69.1	37.7
	85	68.1	68.1	68.8	66.2	74.6	51.3	64.0	64.0	64.0	64.0	69.3	49.5
	90	71.7	71.7	71.7	71.7	74.9	62.7	67.5	67.5	67.5	67.5	69.7	60.7
2640	75	62.8	60.6	68.5	45.6	74.6	28.1	58.3	58.3	63.6	43.7	69.3	26.4
	80	65.9	65.9	68.8	57.1	75.1	41.1	61.9	61.9	63.9	55.2	69.7	39.2
	85	69.7	69.7	69.7	69.7	75.4	53.9	65.5	65.5	65.5	65.5	69.9	51.7
	90	73.5	73.5	73.4	73.4	75.8	66.0	69.1	69.1	69.0	69.0	70.5	64.1
2880	75	63.7	63.5	69.1	47.6	75.2	28.6	59.5	59.5	64.1	45.7	69.8	26.8
	80	67.3	67.3	69.5	59.7	75.7	42.5	63.2	63.2	64.6	57.7	70.3	40.7
	85	71.1	71.1	71.1	71.1	75.9	55.9	66.8	66.8	66.8	66.8	70.5	54.0
	90	74.9	74.9	75.0	75.0	76.6	69.3	70.4	70.4	70.4	70.4	71.3	67.4

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

Table 7. Gross Cooling Capacities (MBH) 7.5 Tons TTA090D Condensing Unit with 7.5 Tons TWE090D Standard Air Handler (IP)

		Ambient Temperature (°F)																	
		85						95						105					
	Ent DB	Entering Wet Bulb (°F)																	
		61		67		73		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
2700	75	89.1	74.8	96.9	58.0	105.8	38.9	84.6	72.6	92.5	56.2	101.0	37.2	80.3	70.6	87.8	54.3	95.8	35.5
	80	89.8	88.5	97.1	70.7	105.9	52.8	85.9	85.9	92.7	68.8	101.1	51.0	82.2	82.2	88.0	66.9	96.0	49.2
	85	93.9	93.9	97.5	84.2	106.0	66.3	90.3	90.3	93.2	82.3	101.2	64.6	86.5	86.5	88.6	80.3	96.1	62.7
	90	98.4	98.4	98.9	97.9	106.1	79.8	94.7	94.7	94.7	94.7	101.4	78.1	90.7	90.7	90.7	90.7	96.3	76.2
3000	75	90.6	78.7	98.3	60.6	107.1	39.6	85.9	76.4	93.8	58.8	102.1	37.9	81.6	74.4	88.9	56.9	96.9	36.1
	80	91.8	91.8	98.5	74.2	107.2	54.7	88.2	88.2	94.8	72.7	102.3	52.9	84.4	84.4	89.1	70.4	97.1	51.0
	85	96.5	96.5	99.1	88.9	107.3	69.5	92.8	92.8	95.5	87.4	102.4	67.7	88.8	88.8	90.0	85.0	97.2	65.9
	90	101.2	101.2	101.1	101.1	107.5	84.3	97.3	97.3	97.3	97.3	102.7	82.5	93.2	93.2	93.1	93.1	97.5	80.4
3300	75	91.9	82.3	99.4	63.3	108.1	40.2	87.2	80.1	94.8	61.4	103.1	38.5	82.8	78.1	89.9	59.5	97.8	36.7
	80	94.0	94.0	99.6	77.6	108.3	56.5	90.2	90.2	94.9	75.5	103.3	54.7	86.2	86.2	90.1	73.5	98.0	52.9
	85	98.8	98.8	100.5	93.5	108.5	72.6	94.9	94.9	96.0	91.6	103.5	70.8	90.7	90.7	91.3	89.6	98.1	68.9
	90	103.6	103.6	103.5	103.5	108.7	88.4	99.5	99.5	99.5	99.5	103.8	86.5	95.2	95.2	95.2	95.2	98.6	84.6
3600	75	93.1	85.9	100.4	65.8	109.0	40.9	88.3	83.7	95.7	64.0	103.9	39.2	83.8	81.6	90.7	62.1	98.5	37.4
	80	95.9	95.9	100.6	80.6	109.2	58.3	92.0	92.0	95.9	78.7	104.2	56.5	87.8	87.8	91.0	76.7	98.8	54.6
	85	100.8	100.8	101.8	97.9	109.4	75.6	96.8	96.8	97.3	96.1	104.3	73.8	92.5	92.5	92.4	92.4	98.9	71.9
	90	105.7	105.7	105.6	105.6	109.8	92.5	101.5	101.5	101.5	101.5	104.8	90.6	97.1	97.1	97.1	97.1	99.5	88.6

		Ambient Temperature (°F)											
		115						125					
	Ent DB	Entering Wet Bulb (°F)											
		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
2700	75	75.7	68.5	82.7	52.3	90.2	33.5	70.6	66.1	77.0	50.0	83.9	31.4
	80	78.1	78.1	82.9	64.8	90.4	47.2	73.5	73.5	77.2	62.5	84.1	45.0
	85	82.2	82.2	83.6	78.2	90.5	60.7	77.5	77.5	78.1	75.8	84.3	58.5
	90	86.4	86.4	86.3	86.3	90.8	74.2	81.4	81.4	81.3	81.3	84.6	71.7
3000	75	76.9	72.2	83.7	54.9	91.2	34.2	71.8	69.8	77.9	52.6	84.7	32.0
	80	80.1	80.1	83.9	68.1	91.4	49.0	75.3	75.3	78.1	65.7	85.0	46.8
	85	84.4	84.4	85.0	82.9	91.5	63.8	79.4	79.4	79.3	79.3	85.1	61.6
	90	88.6	88.6	88.5	88.5	91.9	78.3	83.4	83.4	83.4	83.4	85.6	75.9
3300	75	78.1	75.9	84.5	57.5	92.0	34.8	72.7	72.7	78.6	55.2	85.4	32.6
	80	81.8	81.8	84.8	71.3	92.2	50.9	76.9	76.9	79.0	68.9	85.7	48.6
	85	86.2	86.2	86.1	86.1	92.3	66.9	81.0	81.0	81.0	81.0	85.8	64.7
	90	90.5	90.5	90.5	90.5	92.9	82.5	85.1	85.1	85.1	85.1	86.5	80.1
3600	75	78.9	78.9	85.2	60.1	92.6	35.4	74.0	74.0	79.2	57.8	86.0	33.2
	80	83.3	83.3	85.7	74.5	92.9	52.6	78.2	78.2	79.7	72.1	86.3	50.4
	85	87.8	87.8	87.7	87.7	93.0	69.9	82.4	82.4	82.4	82.4	86.4	67.3
	90	92.2	92.2	92.2	92.2	93.8	86.5	86.6	86.6	86.6	86.6	87.4	84.1

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

Table 8. Gross Cooling Capacities (MBH) 7.5 Tons TTA090D Condensing Unit with 10 Tons TWE120D Standard Air Handler (IP)

		Ambient Temperature (°F)																	
		85						95						105					
	Ent DB	Entering Wet Bulb (°F)																	
		61		67		73		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
3100	75	95.4	84.3	102.9	63.6	111.3	41.4	90.4	81.9	98.2	61.7	106.2	39.6	85.8	79.8	93.2	59.8	100.7	37.8
	80	97.1	97.1	103.1	79.2	111.9	58.1	93.3	93.3	98.4	77.2	106.8	56.3	89.1	89.1	93.5	75.1	101.4	54.4
	85	102.0	102.0	104.0	95.4	112.1	74.5	98.0	98.0	99.4	93.4	107.1	72.7	93.8	93.8	94.6	91.3	101.7	70.8
	90	106.9	106.9	106.8	106.8	112.4	90.1	102.8	102.8	102.7	102.7	107.5	88.2	98.4	98.4	98.3	98.3	102.2	86.2
3400	75	96.7	88.3	104.0	66.3	112.3	42.0	91.6	85.9	99.2	64.4	107.1	40.3	87.0	83.8	94.1	62.4	102.9	38.8
	80	99.3	99.3	104.3	82.8	112.9	60.2	95.3	95.3	100.6	81.3	107.8	58.4	91.0	91.0	94.5	78.7	102.3	56.5
	85	104.4	104.4	105.5	100.5	113.2	78.0	100.2	100.2	100.8	98.5	108.0	75.6	95.8	95.8	95.8	95.8	102.5	73.6
	90	109.3	109.3	109.2	109.2	113.6	94.7	105.1	105.1	105.0	105.0	108.6	92.8	100.5	100.5	100.5	100.5	103.2	90.8
3700	75	97.9	92.3	104.9	68.9	113.1	42.7	92.8	89.9	100.0	67.0	109.1	41.3	88.1	87.7	94.8	65.0	102.2	39.0
	80	101.2	101.2	105.3	86.3	113.8	62.2	97.1	97.1	100.5	84.3	108.6	60.4	92.7	92.7	95.4	82.2	103.1	58.5
	85	106.4	106.4	106.8	105.5	114.0	80.6	102.1	102.1	102.1	102.1	108.8	78.7	97.6	97.6	97.6	97.6	103.3	76.6
	90	111.4	111.4	111.3	111.3	114.7	99.2	107.1	107.1	107.1	107.1	109.7	97.4	102.4	102.4	102.4	102.4	104.2	95.3
4000	75	99.1	96.2	105.7	71.5	115.1	43.7	93.9	93.7	100.8	69.6	108.5	41.5	89.3	89.3	95.4	66.6	102.8	39.7
	80	102.9	102.9	106.3	89.8	114.6	64.2	98.7	98.7	101.4	87.7	109.3	62.4	94.2	94.2	96.2	85.6	103.7	60.5
	85	108.2	108.2	108.1	108.1	114.8	83.7	103.8	103.8	103.8	103.8	109.6	81.8	99.1	99.1	99.1	99.1	104.0	79.7
	90	113.2	113.2	113.2	113.2	115.6	103.7	108.8	108.8	108.8	108.8	110.6	101.8	104.0	104.0	104.0	104.0	105.1	99.7

		Ambient Temperature (°F)											
		115						125					
	Ent DB	Entering Wet Bulb (°F)											
		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
3100	75	81.0	77.4	87.7	57.6	94.8	35.8	75.6	74.9	81.6	55.3	88.1	33.5
	80	84.6	84.6	88.1	72.8	95.5	52.4	79.5	79.5	82.1	70.3	88.9	50.1
	85	89.1	89.1	89.4	89.1	95.7	68.2	83.8	83.8	83.8	83.8	89.1	65.7
	90	93.6	93.6	93.5	93.5	96.3	84.0	88.0	88.0	88.0	88.0	89.8	81.5
3400	75	82.1	81.4	88.5	60.3	95.5	36.4	76.8	76.8	82.3	57.9	88.8	34.2
	80	86.4	86.4	89.0	76.4	96.3	54.4	81.2	81.2	82.9	73.8	89.6	52.2
	85	91.0	91.0	91.0	91.0	96.5	71.3	85.5	85.5	85.5	85.5	89.9	68.8
	90	95.5	95.5	95.5	95.5	97.4	88.5	89.8	89.8	89.8	89.8	90.8	86.0
3700	75	83.3	83.3	89.2	62.9	96.2	37.0	78.1	78.1	82.8	59.4	89.1	37.2
	80	88.0	88.0	89.9	79.9	97.0	56.4	82.5	82.5	83.7	77.3	90.2	54.2
	85	92.6	92.6	92.6	92.6	97.3	74.4	86.9	86.9	86.9	86.9	90.5	71.8
	90	97.2	97.2	97.2	97.2	98.3	93.0	91.3	91.3	91.3	91.3	91.7	90.5
4000	75	84.5	84.5	89.7	64.3	96.7	37.6	79.2	79.2	83.3	61.6	89.6	35.4
	80	89.3	89.3	90.6	83.3	99.0	58.9	83.7	83.7	84.4	80.7	90.6	56.3
	85	94.0	94.0	94.0	94.0	98.0	77.4	88.2	88.2	88.2	88.2	91.1	74.8
	90	98.7	98.7	98.7	98.7	99.2	97.4	92.7	92.7	92.7	92.7	92.6	92.6

Notes:

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

Table 9. Gross Cooling Capacities (MBH) 10 Tons TTA120D Condensing Unit with 10 Tons TWE120D Standard Air Handler (IP)

		Ambient Temperature (°F)																	
		85						95						105					
	Ent DB	Entering Wet Bulb (°F)																	
		61		67		73		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
3600	75	116.8	100.6	128.1	77.2	139.8	51.6	111.3	98.0	122.0	74.7	133.2	49.3	105.5	95.4	115.6	72.2	126.2	46.8
	80	118.8	118.8	128.4	95.4	140.2	70.8	114.1	114.1	122.3	92.9	133.6	68.4	109.0	109.0	115.9	90.2	126.6	65.9
	85	125.2	125.2	129.2	114.2	140.5	89.6	120.2	120.2	123.2	111.6	133.8	87.2	115.0	115.0	117.0	109.0	126.8	84.6
	90	131.5	131.5	131.4	131.4	140.9	108.4	126.4	126.4	126.3	126.3	134.2	106.0	120.9	120.9	120.8	120.8	127.2	103.2
4000	75	118.8	106.0	129.9	80.7	141.4	52.5	113.2	103.5	123.6	78.3	134.7	50.1	107.3	100.8	117.1	75.7	127.6	47.7
	80	122.2	122.2	130.2	100.5	141.9	73.5	117.3	117.3	124.0	97.9	135.1	71.1	111.9	111.9	117.4	95.1	128.0	68.5
	85	128.8	128.8	131.4	120.9	142.3	94.2	123.6	123.6	125.3	118.4	135.4	91.7	118.1	118.1	119.0	115.8	128.2	89.1
	90	135.3	135.3	135.2	135.2	142.7	114.4	129.9	129.9	129.8	129.8	135.9	111.9	124.1	124.1	124.0	124.0	128.9	109.3
4400	75	120.6	111.3	131.3	84.3	142.8	53.3	114.9	108.8	125.0	81.8	135.9	51.0	109.0	106.1	118.3	79.2	128.7	48.5
	80	125.1	125.1	131.7	105.0	143.4	76.1	119.9	119.9	125.4	102.4	136.4	73.7	114.5	114.5	118.8	99.8	129.2	71.1
	85	131.9	131.9	133.4	127.5	143.7	98.6	126.5	126.5	127.3	125.0	136.7	96.1	120.8	120.8	120.7	120.7	129.4	93.6
	90	138.5	138.5	138.5	138.5	144.4	120.4	132.9	132.9	132.8	132.8	137.5	117.9	126.9	126.9	126.9	126.9	130.3	115.3
4800	75	122.2	116.5	132.6	87.8	143.9	54.2	116.5	114.0	126.1	85.3	136.9	51.8	110.2	110.2	119.3	82.7	129.6	49.4
	80	127.7	127.7	133.1	109.6	144.6	78.7	122.3	122.3	126.7	107.0	137.5	76.2	116.7	116.7	120.0	104.4	130.1	73.7
	85	134.6	134.6	135.2	134.0	144.9	103.0	129.0	129.0	128.9	128.9	137.8	100.5	123.1	123.1	123.0	123.0	130.4	97.5
	90	141.4	141.4	141.3	141.3	145.8	126.2	135.5	135.5	135.5	135.5	138.9	123.8	129.4	129.4	129.3	129.3	131.6	121.2

		Ambient Temperature (°F)											
		115						125					
	Ent DB	Entering Wet Bulb (°F)											
		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
3600	75	99.3	92.5	108.8	69.4	118.8	44.2	92.6	89.5	101.2	66.5	110.7	41.5
	80	103.5	103.5	109.1	87.5	119.1	63.2	97.4	97.4	101.7	84.5	111.0	60.4
	85	109.3	109.3	110.3	106.3	119.3	81.9	103.0	103.0	102.9	102.9	111.1	79.0
	90	115.0	115.0	114.9	114.9	119.8	100.4	108.4	108.4	108.3	108.3	111.8	97.5
4000	75	101.1	98.0	110.1	73.0	120.0	45.1	94.1	94.1	102.4	70.0	111.7	42.3
	80	106.2	106.2	110.5	92.3	120.4	65.9	99.9	99.9	102.9	89.2	112.0	63.0
	85	112.1	112.1	112.1	112.1	120.6	86.4	105.5	105.5	105.5	105.5	112.3	83.6
	90	117.9	117.9	117.9	117.9	121.4	106.6	111.1	111.1	111.1	111.1	113.2	103.7
4400	75	102.4	102.4	111.1	76.5	121.0	45.9	96.1	96.1	103.3	73.5	112.6	43.2
	80	108.5	108.5	111.8	97.0	121.4	68.5	102.0	102.0	104.1	94.0	112.9	65.6
	85	114.6	114.6	114.5	114.5	121.7	90.9	107.7	107.7	107.7	107.7	113.2	87.7
	90	120.5	120.5	120.5	120.5	122.7	112.6	113.4	113.4	113.4	113.4	114.5	109.7
4800	75	104.3	104.3	112.0	79.9	121.8	46.8	97.8	97.8	104.1	76.9	113.3	44.0
	80	110.6	110.6	112.9	101.6	122.3	71.0	103.8	103.8	105.1	98.6	113.7	68.1
	85	116.7	116.7	116.6	116.6	122.6	94.7	109.6	109.6	109.5	109.5	114.1	91.7
	90	122.7	122.7	122.7	122.7	124.0	118.5	115.4	115.4	115.3	115.3	115.7	115.6

Notes:

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

Table 10. Gross Cooling Capacities (MBH) 10 Tons TTA120E Condensing Unit with 10 Tons TWE120E Standard/SZVAV/2-Speed VFD Air Handler (IP)

		Ambient Temperature (°F)																	
		85						95						105					
	Ent DB	Entering Wet Bulb (°F)																	
		61		67		73		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
3600	75	116.0	99.6	127.4	77.3	139.2	51.3	110.2	96.9	121.0	74.8	132.2	48.9	104.1	94.0	114.2	72.1	124.9	46.3
	80	118.2	116.8	127.6	94.3	139.4	70.1	112.8	112.8	121.2	91.6	132.3	67.5	107.4	107.4	114.4	88.9	125.0	64.9
	85	124.0	124.0	128.2	113.0	139.5	88.6	118.8	118.8	121.8	110.3	132.4	85.9	113.3	113.3	115.2	107.5	125.1	83.3
	90	130.2	130.2	130.6	129.2	139.8	107.1	124.8	124.8	124.7	124.7	132.7	104.5	119.0	119.0	119.0	119.0	125.4	101.7
4000	75	118.0	104.9	129.1	81.0	140.9	52.2	112.0	102.2	122.5	78.4	133.7	49.8	105.8	99.3	115.6	75.7	126.2	47.2
	80	121.1	121.1	129.4	99.2	141.1	72.7	115.9	115.9	122.8	96.4	133.8	70.1	110.3	110.3	115.9	93.6	126.3	67.4
	85	127.5	127.5	130.3	119.6	141.2	92.9	122.0	122.0	123.8	117.0	134.0	90.3	116.3	116.3	116.2	116.2	126.5	87.6
	90	133.9	133.9	133.8	133.8	141.5	113.1	128.2	128.2	128.1	128.1	134.3	110.5	122.1	122.1	122.1	122.1	126.9	107.7
4400	75	119.7	110.1	130.6	84.6	142.3	53.1	113.7	107.4	123.8	81.9	134.9	50.6	106.5	106.5	116.8	79.2	127.3	48.1
	80	124.0	124.0	130.9	103.8	142.5	75.2	118.5	118.5	124.2	101.1	135.1	72.6	112.7	112.7	117.1	98.2	127.5	69.9
	85	130.6	130.6	132.2	126.1	142.6	97.1	124.9	124.9	124.8	124.8	135.3	94.5	118.9	118.9	119.2	117.6	127.6	91.8
	90	137.0	137.0	137.0	137.0	143.0	118.9	131.1	131.1	131.1	131.1	135.8	116.3	124.9	124.9	124.8	124.8	128.3	113.6
4800	75	121.2	115.2	131.8	88.1	143.4	54.0	114.3	114.3	125.0	85.5	136.0	51.5	108.6	108.6	117.8	82.8	128.2	48.9
	80	126.5	126.5	132.2	108.3	143.6	77.6	120.8	120.8	125.4	105.5	136.2	75.0	114.9	114.9	118.3	102.7	128.4	72.3
	85	133.2	133.2	133.1	133.1	143.8	101.2	127.3	127.3	127.7	125.9	136.4	98.7	121.1	121.1	121.0	121.0	128.6	95.9
	90	139.8	139.8	139.7	139.7	144.2	124.6	133.6	133.6	133.6	133.6	137.1	122.1	127.2	127.2	127.2	127.2	129.5	119.3

		Ambient Temperature (°F)											
		115						125					
	Ent DB	Entering Wet Bulb (°F)											
		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
3600	75	97.6	91.0	107.0	69.2	117.1	43.7	90.6	87.9	99.2	66.2	108.7	40.8
	80	101.7	101.7	107.2	86.0	117.2	62.1	95.3	95.3	99.5	82.8	108.8	59.1
	85	107.3	107.3	108.3	104.7	117.3	80.5	100.8	100.8	101.1	99.7	108.9	77.5
	90	112.9	112.9	112.8	112.8	117.6	98.9	106.1	106.1	106.0	106.0	109.4	95.8
4000	75	99.3	96.4	108.2	72.8	118.3	44.5	92.1	92.1	100.3	69.8	109.7	41.7
	80	104.3	104.3	108.6	90.7	118.4	64.6	97.7	97.7	100.7	87.5	109.8	61.7
	85	110.1	110.1	110.4	108.8	118.5	84.8	103.3	103.3	103.2	103.2	110.0	81.9
	90	115.7	115.7	115.7	115.7	119.1	104.9	108.7	108.7	108.6	108.6	110.7	101.9
4400	75	100.6	100.6	109.3	76.4	119.3	45.4	94.0	94.0	101.2	73.3	110.6	42.6
	80	106.5	106.5	109.7	95.3	119.4	67.1	99.7	99.7	101.8	92.1	110.7	64.1
	85	112.4	112.4	112.3	112.3	119.5	89.0	105.4	105.4	105.3	105.3	110.9	85.9
	90	118.2	118.2	118.1	118.1	120.4	110.8	110.9	110.9	110.9	110.9	112.0	107.8
4800	75	102.4	102.4	110.1	79.9	120.1	46.3	95.6	95.6	101.9	76.9	111.3	43.4
	80	108.5	108.5	110.8	99.8	120.2	69.5	101.5	101.5	102.8	96.6	111.4	66.5
	85	114.4	114.4	114.4	114.4	120.4	93.0	107.2	107.2	107.1	107.1	111.7	90.0
	90	120.3	120.3	120.3	120.3	121.6	116.5	112.8	112.8	112.8	112.8	112.7	112.7

Notes:

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

Table 11. Gross Cooling Capacities (MBH) One Compressor - 10 Tons TTA120F Condensing Unit with 10 Tons TWE120D Standard/SZVAV/2-Speed VFD Air Handler (IP)

		Ambient Temperature (°F)																	
		85						95						105					
	Ent DB	Entering Wet Bulb (°F)																	
		61		67		73		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
3600	75	69.9	69.9	74.1	56.2	81.1	31.8	66.3	66.3	69.7	54.7	76.6	30.3	62.5	62.5	65.3	53.1	71.7	28.8
	80	74.4	74.4	75.1	72.2	81.5	49.7	70.7	70.7	70.9	70.7	76.8	48.1	66.7	66.7	66.7	66.7	71.9	46.4
	85	78.9	78.9	78.9	78.9	81.9	67.2	75.0	75.0	75.0	75.0	77.2	65.7	70.9	70.9	70.9	70.9	72.4	64.1
	90	83.4	83.4	83.3	83.3	83.3	83.3	79.3	79.3	79.2	79.2	79.2	79.2	75.0	75.0	75.0	75.0	74.9	74.9
4000	75	71.3	71.3	74.7	59.5	81.7	32.7	67.6	67.6	70.3	58.0	77.1	31.2	63.7	63.7	65.8	56.5	72.2	29.6
	80	75.9	75.9	75.9	75.9	82.1	51.8	72.1	72.1	72.0	72.0	77.4	50.5	68.0	68.0	68.0	68.0	72.4	48.8
	85	80.5	80.5	80.5	80.5	82.6	71.1	76.4	76.4	76.4	76.4	77.9	69.6	72.2	72.2	72.2	72.2	73.1	68.1
	90	85.0	85.0	85.0	85.0	85.0	85.0	80.8	80.8	80.7	80.7	80.7	80.7	76.3	76.3	76.3	76.3	76.2	76.2
4400	75	72.5	72.5	75.3	62.7	82.2	33.5	68.6	68.6	70.9	61.3	77.6	32.0	64.6	64.6	66.3	59.9	72.6	30.5
	80	77.2	77.2	77.2	77.2	82.6	53.9	73.2	73.2	73.2	73.2	77.8	52.5	69.0	69.0	69.0	69.0	72.8	50.9
	85	81.8	81.8	81.8	81.8	83.3	74.9	77.7	77.7	77.6	77.6	78.5	73.5	73.3	73.3	73.3	73.3	73.7	72.0
	90	86.4	86.4	86.4	86.4	86.3	86.3	82.0	82.0	82.0	82.0	82.0	82.0	77.4	77.4	77.4	77.4	77.4	77.4
4800	75	73.5	73.5	75.8	66.0	82.6	33.7	69.6	69.6	71.3	64.6	77.9	32.9	65.5	65.5	66.7	63.2	72.9	31.3
	80	78.3	78.3	78.2	78.2	83.0	56.0	74.2	74.2	74.2	74.2	78.2	54.5	69.9	69.9	69.9	69.9	73.1	53.0
	85	83.0	83.0	82.9	82.9	83.9	78.6	78.7	78.7	78.7	78.7	79.1	77.2	74.2	74.2	74.2	74.2	74.2	74.2
	90	87.6	87.6	87.6	87.6	87.5	87.5	83.1	83.1	83.1	83.1	83.1	83.1	78.4	78.4	78.4	78.4	78.4	78.4

		Ambient Temperature (°F)											
		115						125					
	Ent DB	Entering Wet Bulb (°F)											
		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
3600	75	58.5	58.5	60.6	51.5	66.7	27.2	54.2	54.2	55.6	49.7	61.3	25.5
	80	62.5	62.5	62.5	62.5	66.8	44.7	58.0	58.0	58.0	58.0	61.4	42.9
	85	66.5	66.5	66.5	66.5	67.4	62.5	61.9	61.9	61.9	61.9	62.2	60.8
	90	70.4	70.4	70.4	70.4	70.3	70.3	65.6	65.6	65.6	65.6	65.5	65.5
4000	75	59.5	59.5	61.1	54.9	67.1	28.0	55.1	55.1	56.1	53.2	61.6	26.3
	80	63.7	63.7	63.6	63.6	67.2	47.1	59.0	59.0	59.0	59.0	61.8	45.2
	85	67.7	67.7	67.7	67.7	68.1	66.5	62.9	62.9	62.9	62.9	62.9	62.9
	90	71.6	71.6	71.6	71.6	71.5	71.5	66.6	66.6	66.6	66.6	66.6	66.6
4400	75	60.4	60.4	61.5	58.3	67.4	28.8	55.9	55.9	56.5	56.5	62.0	27.2
	80	64.6	64.6	64.6	64.6	67.6	49.2	59.9	59.9	59.9	59.9	62.2	47.5
	85	68.7	68.7	68.7	68.7	68.6	68.6	63.8	63.8	63.8	63.8	63.8	63.8
	90	72.6	72.6	72.6	72.6	72.6	72.6	67.5	67.5	67.5	67.5	67.5	67.5
4800	75	61.2	61.2	61.9	61.7	67.7	29.7	56.5	56.5	56.9	55.2	62.2	28.0
	80	65.4	65.4	65.4	65.4	67.9	51.4	60.6	60.6	60.6	60.6	62.4	49.6
	85	69.5	69.5	69.5	69.5	69.5	69.5	64.6	64.6	64.6	64.6	64.5	64.5
	90	73.5	73.5	73.5	73.5	73.5	73.5	68.2	68.2	68.2	68.2	68.2	68.2

Notes:

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

Table 12. Gross Cooling Capacities (MBH) Both Compressors - 10 Tons TTA120F Condensing Unit with 10 Tons TWE120D Standard/SZVAV/2-Speed VFD Air Handler (IP)

		Ambient Temperature (°F)																	
		85						95						105					
	Ent DB	Entering Wet Bulb (°F)																	
		61		67		73		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
3600	75	116.2	99.0	128.2	77.3	140.8	51.8	110.5	96.3	121.9	74.8	133.8	49.4	104.6	93.4	115.3	72.1	126.6	46.9
	80	118.2	117.9	128.4	94.1	140.9	70.4	112.9	112.9	122.1	91.4	134.0	67.9	107.8	107.8	115.5	88.7	126.7	65.2
	85	124.2	124.2	128.9	112.4	141.1	88.7	119.2	119.2	122.8	109.7	134.1	86.1	113.8	113.8	116.3	106.9	126.9	83.4
	90	130.7	130.7	130.6	130.6	141.3	106.9	125.4	125.4	125.4	125.4	134.3	104.2	119.9	119.9	119.8	119.8	127.1	101.6
4000	75	118.2	104.1	130.1	81.0	142.6	52.8	112.5	101.4	123.6	78.4	135.5	50.3	106.4	98.6	116.8	75.7	128.0	47.8
	80	121.2	121.2	130.3	98.8	142.7	73.0	116.1	116.1	123.8	96.2	135.6	70.4	110.7	110.7	117.0	93.4	128.2	67.7
	85	127.9	127.9	131.2	118.8	142.9	92.9	122.6	122.6	124.9	116.1	135.8	90.3	117.0	117.0	118.3	113.3	128.4	87.6
	90	134.5	134.5	134.5	134.5	143.2	112.8	129.0	129.0	129.0	129.0	136.1	110.2	123.2	123.2	123.1	123.1	128.7	107.3
4400	75	120.0	109.1	131.6	84.5	144.1	53.7	114.1	106.4	125.0	82.0	136.8	51.2	108.0	103.5	118.1	79.3	129.2	48.6
	80	124.2	124.2	131.9	103.4	144.3	75.4	118.9	118.9	125.2	100.6	137.0	72.8	113.3	113.3	118.4	97.7	129.4	70.1
	85	131.1	131.1	133.2	125.0	144.5	97.1	125.6	125.6	126.8	122.3	137.2	94.4	119.7	119.7	120.2	119.5	129.6	91.7
	90	137.9	137.9	137.8	137.8	144.8	118.4	132.1	132.1	132.0	132.0	137.7	115.7	126.0	126.0	126.0	126.0	130.2	112.9
4800	75	121.6	113.9	133.0	88.1	145.4	54.5	115.7	111.2	126.2	85.5	138.0	52.1	109.5	108.4	119.1	82.8	130.2	49.5
	80	126.8	126.8	133.2	107.6	145.6	77.8	121.4	121.4	126.6	104.9	138.2	75.2	115.5	115.5	119.6	102.0	130.5	72.5
	85	133.9	133.9	135.0	131.1	145.8	101.1	128.1	128.1	128.6	128.4	138.4	98.4	122.1	122.1	122.0	122.0	130.7	95.7
	90	140.8	140.8	140.7	140.7	146.3	123.9	134.8	134.8	134.7	134.7	139.1	121.2	128.5	128.5	128.5	128.5	131.5	118.4

		Ambient Temperature (°F)											
		115						125					
	Ent DB	Entering Wet Bulb (°F)											
		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
3600	75	98.3	90.5	108.2	69.4	118.8	44.2	91.5	87.4	100.6	66.4	110.5	41.4
	80	102.2	102.2	108.4	85.8	119.0	62.4	96.1	96.1	100.9	82.7	110.6	59.5
	85	108.1	108.1	109.5	104.0	119.2	80.6	101.7	101.7	102.2	101.0	110.8	77.6
	90	113.9	113.9	113.8	113.8	119.5	98.8	107.3	107.3	107.2	107.2	111.2	95.5
4000	75	100.0	95.6	109.6	72.9	120.1	45.1	93.2	92.5	101.8	69.9	111.6	42.3
	80	104.9	104.9	109.8	90.3	120.3	64.9	98.6	98.6	102.1	87.2	111.8	62.0
	85	111.0	111.0	111.5	110.4	120.5	84.8	104.3	104.3	104.3	104.3	111.9	81.8
	90	116.9	116.9	116.8	116.8	121.0	104.4	110.0	110.0	110.0	110.0	112.7	101.3
4400	75	101.6	100.6	110.7	76.5	121.2	46.0	94.8	94.8	102.7	73.5	112.5	43.1
	80	107.3	107.3	111.1	94.8	121.4	67.3	100.7	100.7	103.3	91.6	112.7	64.4
	85	113.4	113.4	113.4	113.4	121.6	88.9	106.6	106.6	106.5	106.5	112.9	85.9
	90	119.5	119.5	119.5	119.5	122.4	110.0	112.3	112.3	112.3	112.3	113.9	106.9
4800	75	103.0	103.0	111.7	80.0	122.1	46.8	96.5	96.5	103.6	77.0	113.3	44.0
	80	109.3	109.3	112.2	99.0	122.3	69.7	102.6	102.6	104.3	95.9	113.5	66.7
	85	115.6	115.6	115.5	115.5	122.5	92.9	108.5	108.5	108.4	108.4	113.7	89.6
	90	121.8	121.8	121.7	121.7	123.6	115.5	114.3	114.3	114.3	114.3	115.1	112.4

Notes:

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

Table 13. Gross Cooling Capacities (MBH) 12.5 Tons TTA150E Condensing Unit with 12.5 Tons TWE150E Standard/SZVAV/2-Speed VFD Air Handler (IP)

		Ambient Temperature (°F)																	
		85						95						105					
	Ent DB	Entering Wet Bulb (°F)																	
		61		67		73		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
4500	75	146.0	123.7	159.9	96.1	174.1	64.1	138.7	120.2	151.8	92.9	165.4	61.0	130.9	116.5	143.4	89.5	156.3	57.9
	80	148.1	147.1	160.2	117.0	174.3	87.1	141.2	141.2	152.1	113.6	165.6	83.9	134.5	134.5	143.6	110.1	156.5	80.6
	85	155.0	155.0	160.8	139.9	174.5	109.7	148.5	148.5	152.8	136.3	165.8	106.5	141.6	141.6	144.6	132.8	156.7	103.2
	90	162.5	162.5	162.4	162.4	174.7	132.3	155.7	155.7	155.7	155.7	166.0	129.0	148.6	148.6	148.5	148.5	157.0	125.7
5000	75	148.3	130.0	162.0	100.5	176.1	65.2	140.9	126.5	153.8	97.2	167.2	62.1	133.0	122.9	145.1	93.9	158.0	59.0
	80	151.6	151.6	162.3	122.8	176.3	90.2	145.0	145.0	154.0	119.4	167.4	87.0	138.0	138.0	145.4	115.9	158.2	83.7
	85	159.4	159.4	163.3	147.7	176.6	115.0	152.5	152.5	155.2	144.2	167.6	111.7	145.3	145.3	146.9	140.7	158.4	108.4
	90	167.0	167.0	166.9	166.9	176.8	139.6	159.9	159.9	159.9	159.9	168.0	136.4	152.5	152.5	152.4	152.4	158.9	133.1
5500	75	150.5	136.2	163.8	104.9	177.8	66.2	142.9	132.7	155.4	101.6	168.7	63.2	134.9	129.1	146.6	98.2	159.4	60.0
	80	155.1	155.1	164.1	128.5	178.0	93.2	148.3	148.3	155.7	125.1	169.0	90.0	141.0	141.0	147.0	121.6	159.6	86.7
	85	163.1	163.1	165.5	155.3	178.3	120.0	156.0	156.0	157.4	151.9	169.2	116.8	148.5	148.5	148.4	148.4	159.8	113.4
	90	170.8	170.8	170.8	170.8	178.7	146.8	163.5	163.5	163.4	163.4	169.7	143.2	155.8	155.8	155.8	155.8	160.5	139.8
6000	75	152.4	142.2	165.4	109.2	179.2	67.3	144.7	138.7	156.8	105.9	170.0	64.2	136.7	135.1	147.8	102.5	160.5	61.0
	80	158.2	158.2	165.7	134.0	179.5	96.1	151.1	151.1	157.2	130.3	170.3	92.9	143.7	143.7	148.4	126.7	160.8	89.6
	85	166.3	166.3	167.6	162.7	179.7	125.0	159.0	159.0	158.9	158.9	170.5	121.7	151.3	151.3	151.2	151.2	161.0	118.4
	90	174.2	174.2	174.1	174.1	180.3	153.3	166.6	166.6	166.6	166.6	171.2	150.0	158.7	158.7	158.7	158.7	162.0	146.6

		Ambient Temperature (°F)											
		115						125					
	Ent DB	Entering Wet Bulb (°F)											
		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
4500	75	122.8	112.7	134.4	85.9	146.7	54.6	114.0	108.7	124.7	82.2	136.2	51.0
	80	127.2	127.2	134.7	106.4	146.9	77.2	119.3	119.3	125.0	102.6	136.4	73.5
	85	134.2	134.2	135.9	129.2	147.1	99.7	126.0	126.0	126.6	125.3	136.6	95.9
	90	140.9	140.9	140.9	140.9	147.5	122.2	132.5	132.5	132.4	132.4	137.1	118.5
5000	75	124.8	119.1	136.0	90.3	148.2	55.6	115.9	115.1	126.0	86.5	137.5	52.1
	80	130.5	130.5	136.4	112.2	148.4	80.2	122.3	122.3	126.6	108.4	137.7	76.5
	85	137.6	137.6	138.2	137.1	148.6	104.9	129.1	129.1	129.0	129.0	137.9	101.1
	90	144.5	144.5	144.5	144.5	149.2	129.3	135.7	135.7	135.7	135.7	138.7	125.4
5500	75	126.6	125.3	137.3	94.6	149.4	56.6	117.8	117.8	127.2	90.8	138.6	53.1
	80	133.3	133.3	137.8	117.7	149.6	83.2	124.9	124.9	127.9	113.7	138.8	79.5
	85	140.5	140.5	140.4	140.4	149.8	109.9	131.7	131.7	131.7	131.7	139.0	106.2
	90	147.5	147.5	147.5	147.5	150.7	136.2	138.5	138.5	138.4	138.4	140.2	132.4
6000	75	128.3	128.3	138.4	98.9	150.4	57.7	119.9	119.9	128.1	95.1	139.4	54.1
	80	135.8	135.8	139.1	123.0	150.7	86.1	127.1	127.1	129.1	119.0	139.7	82.3
	85	143.0	143.0	143.0	143.0	150.9	114.8	134.0	134.0	133.9	133.9	140.0	111.1
	90	150.1	150.1	150.1	150.1	152.1	143.0	140.8	140.8	140.8	140.8	141.6	139.2

Notes:

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

Table 14. Gross Cooling Capacities (MBH) 15 Tons TTA180E Condensing Unit with 15 Tons TWE180E Standard/SZVAV/2-Speed VFD Air Handler (IP)

		Ambient Temperature (°F)																	
		85						95						105					
	Ent DB	Entering Wet Bulb (°F)																	
		61		67		73		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
5400	75	172.9	140.0	190.5	114.8	209.4	77.2	164.7	135.6	181.8	111.3	199.9	73.9	156.2	131.3	172.5	107.6	189.6	70.2
	80	174.2	164.4	191.1	133.4	209.8	102.0	164.9	164.9	182.4	129.6	200.4	98.4	157.7	157.7	173.1	125.5	190.3	94.5
	85	180.6	180.6	191.3	157.3	210.4	126.3	173.8	173.8	182.7	153.4	201.0	122.6	166.4	166.4	173.6	149.3	190.9	118.7
	90	189.8	189.8	193.1	181.8	210.9	150.4	182.8	182.8	182.7	182.7	201.5	146.7	175.2	175.2	175.1	175.1	191.3	142.7
6000	75	175.6	145.8	193.5	120.3	212.3	78.7	167.5	141.8	184.6	116.7	202.6	75.2	158.8	137.5	175.0	113.0	192.0	71.4
	80	176.5	176.5	194.2	139.2	212.9	105.2	169.6	169.6	185.3	135.4	203.3	101.5	162.7	159.3	175.7	131.3	192.8	97.6
	85	185.9	185.9	194.6	165.1	213.6	131.5	178.8	178.8	185.9	161.2	203.9	127.8	171.1	171.1	176.5	157.0	193.5	123.9
	90	195.5	195.5	195.3	195.3	214.1	157.7	188.1	188.1	188.0	188.0	204.5	153.9	180.2	180.2	180.9	177.3	194.0	149.9
6600	75	178.3	151.8	196.0	125.7	214.7	80.0	170.0	147.7	186.9	122.1	204.8	76.4	161.1	143.4	177.2	118.3	194.0	72.5
	80	180.9	180.9	196.8	144.8	215.5	108.2	174.2	171.3	187.7	140.9	205.7	104.5	166.1	165.2	177.6	136.2	195.0	100.6
	85	190.6	190.6	197.5	172.5	216.3	136.6	183.2	183.2	188.6	168.6	206.4	132.8	175.2	175.2	179.1	164.4	195.7	128.8
	90	200.4	200.4	200.3	200.3	216.9	164.7	192.8	192.8	193.3	190.5	206.6	160.4	184.6	184.6	184.7	184.3	196.1	156.2
7200	75	180.6	157.5	198.3	131.0	216.8	81.0	172.2	153.4	189.0	127.4	206.7	77.1	163.2	149.1	179.0	123.6	195.8	73.1
	80	185.1	182.7	199.1	150.1	217.7	111.1	177.4	177.0	189.4	145.7	207.7	107.4	169.3	169.3	179.5	141.2	196.9	103.4
	85	194.7	194.7	200.1	179.6	218.6	141.4	187.1	187.1	191.1	175.7	208.5	137.6	178.8	178.8	181.6	171.6	197.7	133.6
	90	204.8	204.8	205.2	203.1	218.9	170.8	197.0	197.0	196.9	196.9	208.9	166.8	188.5	188.5	188.4	188.4	198.2	162.6

		Ambient Temperature (°F)											
		115						125					
	Ent DB	Entering Wet Bulb (°F)											
		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
5400	75	147.1	126.9	162.3	103.6	178.5	66.3	137.2	122.1	151.2	99.3	166.1	61.8
	80	150.6	146.9	163.0	121.2	179.3	90.4	141.5	140.1	151.9	116.6	167.1	85.9
	85	158.4	158.4	163.8	144.9	179.9	114.5	149.5	149.5	153.0	140.3	167.7	110.0
	90	166.9	166.9	167.7	163.6	180.3	138.5	157.7	157.7	157.9	156.6	168.0	133.3
6000	75	149.5	133.0	164.6	109.0	180.5	67.3	139.4	128.2	153.2	104.6	168.0	62.6
	80	154.2	153.0	165.0	126.4	181.6	93.4	145.0	145.0	153.7	121.4	169.1	88.9
	85	162.7	162.7	166.5	152.6	182.3	119.6	153.4	153.4	153.3	153.3	169.8	115.1
	90	171.6	171.6	171.7	170.8	182.5	145.1	161.9	161.9	161.8	161.8	170.3	140.3
6600	75	151.7	138.9	166.6	114.3	182.4	68.0	139.5	139.5	154.9	109.9	169.5	65.0
	80	157.5	157.5	167.0	131.5	183.5	96.4	148.2	148.2	155.5	126.6	170.8	91.8
	85	166.6	166.6	166.4	166.4	184.3	124.6	156.9	156.9	156.7	156.7	171.6	120.0
	90	175.6	175.6	175.5	175.5	184.7	151.8	165.6	165.6	165.5	165.5	172.3	147.0
7200	75	153.7	144.6	168.2	119.6	183.9	70.5	142.1	142.1	156.4	113.8	170.8	66.3
	80	160.6	160.6	168.8	136.6	185.2	99.2	151.0	151.0	157.2	131.6	172.3	94.6
	85	169.9	169.9	169.8	169.8	186.0	129.3	159.9	159.9	160.8	155.6	172.7	123.9
	90	179.2	179.2	179.1	179.1	186.7	158.2	168.8	168.8	168.7	168.7	174.1	153.4

Notes:

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

Table 15. Gross Cooling Capacities (MBH) 15 Tons TTA180E Condensing Unit with 20 Tons TWE240E Standard/SZVAV/2-Speed VFD Air Handler (IP)

		Ambient Temperature (°F)																	
		85						95						105					
	Ent DB	Entering Wet Bulb (°F)																	
		61		67		73		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
6400	75	185.4	161.3	203.8	127.6	223.7	82.9	176.7	157.2	194.2	123.9	213.4	79.4	167.5	152.8	184.0	119.9	202.2	75.4
	80	189.9	186.9	204.3	153.2	224.1	113.8	181.9	181.1	194.7	149.2	213.8	110.0	173.5	173.5	184.4	144.6	202.7	106.0
	85	199.5	199.5	205.5	183.8	224.7	144.4	191.7	191.7	196.2	179.8	214.3	140.5	183.4	183.4	186.4	175.7	203.2	136.5
	90	209.9	209.9	210.6	207.7	225.2	174.9	201.9	201.9	202.1	201.9	214.7	170.7	193.3	193.3	193.2	193.2	203.8	166.5
6700	75	186.7	164.8	205.0	130.3	224.9	83.6	177.9	160.7	195.3	126.5	214.4	80.0	168.7	156.3	185.0	122.5	203.1	76.2
	80	191.8	190.4	205.5	156.5	225.4	115.5	183.7	183.7	195.7	152.1	215.0	111.7	175.4	175.4	185.5	147.8	203.8	107.7
	85	201.9	201.9	207.0	188.2	225.9	147.3	194.0	194.0	197.7	184.3	215.5	143.5	185.5	185.5	185.3	185.3	204.3	139.4
	90	212.5	212.5	212.8	211.9	226.3	178.7	204.4	204.4	204.2	204.2	216.0	174.7	195.5	195.5	195.4	195.4	204.9	170.6
7000	75	187.9	168.3	206.1	133.0	226.0	84.3	179.1	164.1	196.4	129.2	215.4	80.5	169.9	159.8	185.9	125.2	204.0	76.9
	80	193.5	193.5	206.5	159.4	226.5	117.3	185.7	185.7	196.8	155.2	216.0	113.4	177.3	177.3	186.5	150.9	204.7	109.4
	85	204.2	204.2	208.5	192.5	227.1	150.2	196.1	196.1	199.1	188.6	216.6	146.3	187.5	187.5	187.3	187.3	205.2	142.2
	90	214.9	214.9	214.8	214.8	227.6	182.6	206.6	206.6	206.5	206.5	217.2	178.7	197.6	197.6	197.5	197.5	206.1	174.5
7300	75	189.1	171.7	207.2	135.7	227.0	84.9	180.3	167.6	197.4	131.9	216.2	81.4	168.8	168.8	186.8	127.9	204.8	77.5
	80	195.5	195.5	207.6	162.4	227.6	118.9	187.5	187.5	197.9	158.3	217.0	115.1	179.0	179.0	187.5	153.9	205.6	111.0
	85	206.3	206.3	209.9	196.8	228.2	153.0	198.1	198.1	198.0	198.0	217.5	149.1	189.3	189.3	189.1	189.1	206.1	145.0
	90	217.1	217.1	217.1	217.1	228.8	186.5	208.7	208.7	208.6	208.6	218.3	182.5	199.6	199.6	199.6	199.6	207.1	178.4

		Ambient Temperature (°F)											
		115						125					
	Ent DB	Entering Wet Bulb (°F)											
		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
6400	75	157.7	148.3	172.9	115.6	190.0	71.5	145.8	145.8	160.8	111.0	176.7	67.1
	80	164.7	164.7	173.5	140.1	190.7	101.7	154.9	154.9	161.5	135.2	177.5	97.0
	85	174.3	174.3	174.1	174.1	191.2	132.2	164.2	164.2	165.2	159.6	178.0	127.5
	90	183.9	183.9	183.8	183.8	192.0	162.1	173.4	173.4	173.3	173.3	179.1	157.4
6700	75	156.8	156.8	173.8	118.3	190.9	72.2	148.5	142.0	161.6	113.6	177.4	67.7
	80	166.5	166.5	174.5	143.2	191.7	103.4	156.5	156.5	162.5	138.3	178.3	98.7
	85	176.2	176.2	176.1	176.1	192.2	135.0	165.9	165.9	166.7	162.5	178.9	130.4
	90	186.0	186.0	185.9	185.9	193.1	166.2	175.3	175.3	175.2	175.2	180.1	161.4
7000	75	158.4	158.4	174.7	120.9	191.7	72.8	149.7	144.3	162.3	116.3	178.1	68.4
	80	168.2	168.2	175.4	146.3	192.5	105.1	158.0	158.0	163.3	141.3	179.1	100.4
	85	178.1	178.0	179.2	174.4	193.0	137.9	167.6	167.6	168.0	165.4	179.4	132.6
	90	187.9	187.9	187.8	187.8	194.1	170.1	177.1	177.1	177.0	177.0	181.2	165.3
7300	75	159.9	159.9	175.4	123.6	192.5	73.5	150.8	146.5	163.0	118.9	178.8	69.0
	80	169.8	169.8	176.3	149.3	193.3	106.7	159.5	159.5	164.1	144.4	179.8	102.0
	85	179.8	179.8	180.6	176.1	193.9	140.7	169.1	169.1	169.3	168.3	180.2	135.3
	90	189.8	189.8	189.6	189.6	195.2	174.0	178.7	178.7	178.7	178.7	182.2	169.3

Notes:

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

Table 16. Gross Cooling Capacities (MBH) One Compressor - 15 Tons TTA180F Condensing Unit with 15 Tons TWE180E Standard/SZVAV/2-Speed VFD Air Handler (IP)

		Ambient Temperature (°F)																	
		85						95						105					
	Ent DB	Entering Wet Bulb (°F)																	
		61		67		73		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
5400	75	106.4	106.4	113.7	84.8	123.5	48.4	101.7	101.7	108.0	82.8	117.6	46.4	96.6	96.6	101.9	75.4	110.6	43.2
	80	112.8	112.8	114.6	105.2	124.1	73.4	107.8	107.8	109.0	103.1	117.6	71.1	102.5	102.5	103.0	100.8	110.7	63.6
	85	119.1	119.1	119.1	119.1	124.1	97.8	113.5	113.5	113.5	113.5	117.7	95.7	107.7	107.7	107.7	107.7	111.7	87.3
	90	124.8	124.8	124.7	124.7	125.4	122.9	120.1	120.1	120.1	120.1	120.1	120.1	114.8	114.8	114.8	114.8	114.8	114.8
6000	75	108.4	108.4	114.7	89.6	124.3	49.7	103.6	103.6	108.9	87.7	118.4	46.6	99.5	99.5	102.7	78.9	111.3	44.2
	80	114.9	114.9	115.9	111.0	124.9	76.6	109.9	109.9	110.3	108.9	118.4	74.3	104.0	104.0	104.0	104.0	111.4	63.6
	85	121.0	121.0	121.0	121.0	125.1	103.0	115.5	115.5	115.5	115.5	119.9	101.3	109.5	109.5	108.8	108.8	114.4	110.2
	90	127.4	127.4	127.4	127.4	127.3	127.3	122.4	122.4	122.4	122.4	122.3	122.3	116.9	116.9	116.9	116.9	116.9	116.9
6600	75	110.2	110.2	115.5	94.4	125.0	49.6	107.4	107.4	109.6	92.5	119.1	47.5	99.8	99.8	103.3	82.3	112.0	45.1
	80	116.8	116.8	117.1	116.7	126.0	78.9	111.6	111.6	111.6	111.6	119.1	76.6	105.4	105.4	105.4	105.4	113.0	75.0
	85	122.8	122.8	122.8	122.8	126.0	108.0	117.2	117.2	117.2	117.2	120.8	106.3	111.9	111.9	110.2	110.2	114.8	100.0
	90	129.5	129.5	129.5	129.5	129.4	129.4	124.3	124.3	124.3	124.3	124.2	124.2	118.6	118.6	118.6	118.6	118.6	118.6
7200	75	111.4	111.4	116.3	99.1	125.6	52.2	106.6	106.6	110.3	97.3	119.6	48.4	101.0	101.0	103.9	85.6	113.0	48.1
	80	118.6	118.6	118.5	118.5	126.5	81.5	112.9	112.9	112.9	112.9	119.6	79.3	106.6	106.6	106.6	106.6	114.1	76.0
	85	125.5	125.5	125.4	125.4	126.8	112.8	119.9	119.9	119.8	119.8	121.6	105.0	112.7	112.7	112.1	112.1	115.8	100.5
	90	131.8	131.8	131.8	131.8	131.2	131.2	125.9	125.9	125.9	125.9	125.9	125.9	120.1	120.1	120.1	120.1	120.1	120.1

		Ambient Temperature (°F)											
		115						125					
	Ent DB	Entering Wet Bulb (°F)											
		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
5400	75	91.0	91.0	95.2	72.8	103.0	35.6	84.9	84.9	87.2	69.8	95.5	29.0
	80	96.1	96.1	96.1	96.1	104.0	55.0	89.5	89.5	88.0	76.0	97.0	48.0
	85	102.7	102.7	101.6	101.6	106.5	79.0	95.0	95.0	92.0	86.0	100.0	72.0
	90	110.9	110.9	110.8	110.8	110.8	110.8	101.0	101.0	99.0	95.0	106.0	106.0
6000	75	92.6	92.6	95.5	76.2	103.6	36.1	85.2	85.2	87.7	73.3	87.8	70.0
	80	97.6	97.6	97.6	97.6	104.0	60.9	89.1	89.1	89.8	89.8	90.4	80.7
	85	103.7	103.7	102.5	102.5	106.0	85.8	95.3	95.3	94.4	94.4	95.0	91.4
	90	110.7	110.7	110.6	110.6	110.6	110.6	103.0	103.0	101.9	101.9	102.1	102.1
6600	75	93.9	93.9	96.0	79.6	106.0	39.9	87.4	87.4	89.0	76.4	99.8	35.0
	80	100.0	100.0	98.6	98.6	107.1	69.8	93.6	93.6	92.7	92.7	101.0	65.1
	85	106.1	106.1	104.0	104.0	108.9	93.7	99.8	99.8	97.3	97.3	102.9	88.2
	90	112.2	112.2	112.2	112.2	112.2	112.2	106.0	106.0	105.0	105.0	106.1	106.1
7200	75	95.0	95.0	96.5	82.8	105.9	41.0	87.0	87.0	89.8	79.1	98.4	33.9
	80	101.3	101.3	99.3	99.3	107.3	67.4	93.9	93.9	92.5	92.5	99.4	59.8
	85	107.7	107.7	105.1	105.1	108.8	93.1	100.5	100.5	97.6	97.6	101.3	85.4
	90	113.5	113.5	113.5	113.5	113.5	113.5	106.2	106.2	106.5	106.5	105.2	107.0

Notes:

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

Table 17. Gross Cooling Capacities (MBH) Both Compressors - 15 Tons TTA180F Condensing Unit with 15 Tons TWE180E Standard/SZVAV/2-Speed VFD Air Handler (IP)

		Ambient Temperature (°F)																	
		85						95						105					
	Ent DB	Entering Wet Bulb (°F)																	
		61		67		73		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
5400	75	174.2	141.0	190.9	115.5	208.8	77.2	166.3	136.8	182.6	112.1	199.6	73.9	158.1	132.6	173.5	108.5	189.6	70.5
	80	175.4	164.8	191.7	134.1	209.4	102.1	168.2	161.1	183.4	130.4	200.3	98.6	160.4	157.1	174.4	126.5	190.4	94.8
	85	181.7	181.7	192.0	157.9	210.2	126.6	175.0	175.0	183.7	154.1	201.1	123.0	167.8	167.8	174.7	150.0	191.2	119.2
	90	190.6	190.6	193.8	181.9	210.9	150.9	183.8	183.8	185.8	178.2	201.7	147.3	176.4	176.4	177.3	174.2	191.8	143.5
6000	75	176.8	146.7	193.8	121.0	211.5	78.6	169.0	142.7	185.2	117.6	202.0	75.3	160.5	138.5	176.0	113.9	191.8	71.6
	80	179.1	173.2	194.7	139.9	212.4	105.3	171.7	169.4	186.1	136.2	203.0	101.8	163.7	163.7	176.8	132.3	192.8	98.0
	85	186.8	186.8	195.1	165.4	213.3	131.8	179.9	179.9	186.5	161.5	203.9	128.2	172.4	172.4	177.5	157.4	193.7	124.4
	90	196.1	196.1	197.7	191.7	214.0	158.2	188.9	188.9	189.7	187.9	204.6	154.6	181.1	181.1	181.0	181.0	194.4	150.7
6600	75	179.3	152.4	196.3	126.4	213.8	80.0	171.3	148.4	187.5	123.0	204.1	76.4	162.7	144.2	178.0	119.3	193.6	72.7
	80	182.4	181.1	197.3	145.5	214.9	108.3	174.9	174.9	188.4	141.7	205.3	104.7	167.4	167.4	178.6	136.9	194.9	100.9
	85	191.3	191.3	197.8	172.5	215.9	136.9	184.2	184.2	189.2	168.7	206.2	133.2	176.4	176.4	180.0	164.5	195.9	129.4
	90	200.8	200.8	201.4	201.1	216.6	165.2	193.4	193.4	193.3	193.3	206.6	160.5	185.3	185.3	185.2	185.2	196.2	156.3
7200	75	181.5	157.8	198.4	131.8	215.6	81.0	173.3	153.8	189.5	128.3	205.7	77.4	164.7	149.6	179.8	124.6	195.0	74.4
	80	185.5	185.5	199.0	150.0	217.1	111.2	178.4	178.4	190.1	146.0	207.3	107.6	170.6	170.6	180.5	141.7	196.7	103.8
	85	195.3	195.3	200.3	179.4	218.1	141.7	187.9	187.9	191.6	175.5	208.3	138.0	179.8	179.8	182.3	171.4	197.7	134.1
	90	205.1	205.1	205.0	205.0	218.5	170.6	197.4	197.4	197.3	197.3	208.7	166.7	189.0	189.0	188.9	188.9	198.2	162.5

		Ambient Temperature (°F)											
		115						125					
	Ent DB	Entering Wet Bulb (°F)											
		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
5400	75	149.2	128.2	163.8	104.6	178.8	66.6	139.5	123.4	153.0	100.5	166.8	62.4
	80	151.9	151.9	164.6	122.4	179.7	90.9	143.4	143.4	153.8	117.9	167.9	86.5
	85	160.1	160.1	165.1	145.6	180.5	115.2	151.3	151.3	154.7	140.9	168.7	110.8
	90	168.2	168.2	168.1	168.1	181.1	139.4	159.1	159.1	159.1	159.1	169.0	134.0
6000	75	151.5	134.1	166.0	110.0	180.7	67.7	141.7	129.3	155.0	105.8	168.3	64.0
	80	155.8	155.8	166.8	128.1	181.9	93.9	147.0	147.0	155.5	122.5	169.8	89.6
	85	164.2	164.2	167.8	153.0	182.8	120.3	155.0	155.0	157.2	148.2	170.7	115.9
	90	172.6	172.6	172.6	172.6	183.1	145.5	163.1	163.1	163.1	163.1	171.1	140.6
6600	75	153.6	139.7	167.8	115.4	182.1	69.4	143.6	134.8	156.6	111.1	169.7	65.3
	80	159.2	159.2	168.4	132.4	183.8	96.9	150.0	150.0	157.2	127.5	171.5	92.5
	85	167.8	167.8	170.2	160.1	184.7	125.3	158.3	158.3	159.4	155.2	172.4	120.8
	90	176.5	176.5	176.4	176.4	185.1	151.8	166.6	166.6	166.5	166.5	172.9	147.0
7200	75	155.5	145.1	169.4	120.7	183.6	70.7	145.4	140.2	158.0	116.4	171.0	66.6
	80	162.1	162.1	170.1	137.2	185.3	99.7	152.7	152.7	158.7	132.2	172.8	95.2
	85	171.0	171.0	172.4	166.9	186.3	130.0	161.2	161.2	161.1	161.1	173.4	124.3
	90	179.9	179.9	179.8	179.8	186.8	158.0	169.7	169.7	169.7	169.7	174.6	153.1

Notes:

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

Table 18. Gross Cooling Capacities (MBH) 20 Tons TTA240E Condensing Unit with 20 Tons TWE240E Standard/SZVAV/2-Speed VFD Air Handler (IP)

		Ambient Temperature (°F)																	
		85						95						105					
	Ent DB	Entering Wet Bulb (°F)																	
		61		67		73		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
7200	75	245.0	197.2	270.0	160.0	297.4	109.4	234.5	192.0	258.2	155.2	284.3	104.7	222.7	186.1	245.4	150.0	270.0	99.6
	80	247.5	231.4	270.8	188.0	297.6	144.0	237.4	226.1	259.0	182.8	284.5	139.0	226.5	220.5	246.3	177.3	270.3	133.6
	85	255.7	255.7	271.6	222.1	298.1	177.9	246.5	246.5	259.7	216.5	285.1	172.8	236.5	236.5	247.1	210.8	271.0	167.3
	90	268.7	268.7	274.4	255.7	298.7	211.6	259.2	259.2	263.2	250.5	285.7	206.4	248.8	248.8	251.3	244.8	271.6	200.9
8000	75	249.1	206.1	274.4	167.3	301.8	111.3	238.3	200.7	262.2	162.4	288.2	106.6	226.6	194.8	249.1	157.2	273.6	101.4
	80	253.0	243.7	275.3	196.4	302.1	148.6	240.7	240.7	263.1	191.1	288.6	143.5	230.7	230.7	250.0	185.5	274.0	138.0
	85	263.4	263.4	276.1	233.0	302.7	185.4	253.8	253.8	264.2	227.5	289.2	180.3	243.3	243.3	251.5	221.7	274.7	174.8
	90	276.9	276.9	280.4	270.1	303.4	222.1	266.9	266.9	266.6	266.6	289.9	216.9	255.9	255.9	255.7	255.7	275.5	211.4
8800	75	253.0	214.7	278.1	174.6	305.6	113.3	242.0	209.2	265.6	169.6	291.6	108.3	230.0	203.3	252.1	164.4	276.6	102.8
	80	256.3	256.3	279.1	204.4	305.9	153.0	246.7	246.7	266.6	199.1	292.0	147.8	236.1	236.1	253.1	193.4	277.1	142.3
	85	270.1	270.1	280.4	243.6	306.6	192.7	260.1	260.1	268.3	238.2	292.7	187.5	249.2	249.2	255.3	232.3	277.9	181.9
	90	284.0	284.0	283.8	283.8	307.3	232.2	273.6	273.6	273.4	273.4	293.6	227.0	262.2	262.2	262.0	262.0	278.4	220.9
9600	75	256.5	222.9	281.3	181.8	308.8	114.9	245.2	217.4	268.5	176.8	294.5	109.6	233.1	211.4	254.8	171.5	279.2	104.2
	80	261.9	261.9	282.3	212.1	309.2	157.2	251.9	251.9	269.5	206.7	295.0	152.0	241.0	241.0	255.4	200.5	279.8	146.4
	85	276.1	276.1	284.4	253.9	309.9	199.7	265.7	265.7	272.1	248.4	295.8	194.4	254.4	254.4	258.9	242.5	280.6	188.8
	90	290.4	290.4	290.2	290.2	310.8	242.0	279.5	279.5	279.3	279.3	296.4	236.1	267.7	267.7	267.5	267.5	281.4	230.2

		Ambient Temperature (°F)											
		115						125					
	Ent DB	Entering Wet Bulb (°F)											
		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
7200	75	210.3	179.8	231.5	144.4	254.5	94.1	196.5	173.0	215.9	138.3	237.1	88.0
	80	213.7	213.7	232.4	171.3	254.8	127.8	202.0	201.4	216.8	164.8	237.6	121.5
	85	225.4	225.4	233.6	204.6	255.6	161.5	212.9	212.9	218.6	197.8	238.4	155.1
	90	237.3	237.3	237.0	237.0	256.3	195.1	224.2	224.2	224.5	224.2	239.3	188.8
8000	75	213.9	188.5	234.7	151.6	257.6	95.6	199.8	181.6	218.7	145.4	239.8	89.3
	80	219.9	219.4	235.6	179.5	258.1	132.2	206.9	206.9	219.3	172.4	240.5	125.8
	85	231.6	231.6	237.6	215.5	258.9	168.9	218.5	218.5	222.3	208.6	241.3	162.5
	90	243.9	243.9	243.7	243.7	259.8	205.6	230.2	230.2	230.0	230.0	242.0	198.1
8800	75	217.1	196.9	237.5	158.7	260.3	97.0	202.8	189.9	221.1	152.5	241.9	91.8
	80	224.5	224.5	238.1	186.8	260.9	136.4	211.4	211.4	222.0	179.8	242.9	130.0
	85	237.1	237.1	241.3	225.9	261.7	176.0	223.4	223.4	223.2	223.2	243.7	169.5
	90	249.6	249.6	249.4	249.4	262.5	214.6	235.4	235.4	235.2	235.2	244.9	207.6
9600	75	220.0	204.9	239.8	165.8	262.5	99.7	205.5	197.9	223.2	159.5	243.8	93.6
	80	229.0	229.0	240.7	194.0	263.3	140.5	215.4	215.4	224.3	186.9	244.9	134.0
	85	241.8	241.8	244.6	236.1	264.1	182.9	227.7	227.7	227.5	227.5	245.8	176.3
	90	254.7	254.7	254.5	254.5	265.3	223.8	240.0	240.0	239.8	239.8	247.5	216.8

Notes:

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

Table 19. Gross Cooling Capacities (MBH) One Compressor - 20 Tons TTA240F Condensing Unit with 20 Tons TWE240E Standard/SZVAV/2-Speed VFD Air Handler (IP)

		Ambient Temperature (°F)																	
		85						95						105					
	Ent DB	Entering Wet Bulb (°F)																	
		61		67		73		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
7200	75	143.7	136.8	158.0	116.7	173.8	67.2	137.4	133.9	150.6	113.9	165.4	64.5	130.5	130.5	142.5	109.8	156.3	61.6
	80	151.0	151.0	158.2	129.6	173.9	93.8	145.0	145.0	150.8	126.6	165.6	90.9	138.4	138.4	142.7	123.2	156.5	87.7
	85	159.6	159.6	160.0	158.0	174.2	122.2	153.3	153.3	153.2	153.2	165.8	119.3	146.3	146.3	146.2	146.2	156.7	116.1
	90	168.2	168.2	168.1	168.1	174.3	149.8	161.6	161.6	161.5	161.5	166.0	146.7	154.2	154.2	154.2	154.2	157.1	143.4
8000	75	145.9	143.5	159.7	122.5	175.4	69.0	139.6	139.6	152.1	119.7	166.9	66.3	133.1	133.1	143.8	116.6	157.6	63.4
	80	154.3	154.3	160.0	135.6	175.7	97.2	148.1	148.1	152.4	132.4	167.1	94.2	141.2	141.2	144.1	129.1	157.8	91.0
	85	163.1	163.1	163.0	163.0	175.9	127.8	156.6	156.6	156.5	156.5	167.3	124.5	149.3	149.3	149.2	149.2	158.0	121.1
	90	172.0	172.0	171.9	171.9	176.2	157.4	165.1	165.1	165.0	165.0	167.9	154.3	157.4	157.4	157.3	157.3	158.9	151.0
8800	75	148.2	148.2	161.2	129.3	176.8	70.8	142.1	142.1	153.4	126.5	168.1	68.0	135.4	135.4	145.0	123.4	158.7	65.1
	80	157.2	157.2	161.4	141.2	177.1	100.3	150.7	150.7	153.7	138.1	168.4	97.3	143.6	143.6	145.5	134.7	159.0	94.1
	85	166.2	166.2	166.1	166.1	177.3	132.7	159.4	159.4	159.3	159.3	168.6	129.6	151.9	151.9	151.8	151.8	159.1	126.1
	90	175.3	175.3	175.2	175.2	178.0	164.7	168.1	168.1	168.0	168.0	169.6	161.6	160.1	160.1	160.0	160.0	160.6	158.2
9600	75	150.5	150.5	162.4	136.1	178.0	72.5	144.2	144.2	154.6	133.3	169.2	69.8	137.3	137.3	145.9	129.7	159.6	66.8
	80	159.7	159.7	162.8	146.6	178.4	103.4	153.1	153.1	155.1	143.5	169.5	100.3	145.7	145.7	146.8	140.1	159.9	97.1
	85	168.9	168.9	168.8	168.8	178.6	137.6	161.9	161.9	161.8	161.8	169.7	134.4	154.1	154.1	154.1	154.1	160.1	131.0
	90	178.2	178.2	178.1	178.1	179.7	171.7	170.7	170.7	170.6	170.6	171.2	168.6	162.1	162.1	162.1	162.1	162.0	162.0

		Ambient Temperature (°F)											
		115						125					
	Ent DB	Entering Wet Bulb (°F)											
		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
7200	75	123.6	123.6	133.7	106.5	146.4	58.5	115.8	115.8	124.0	103.0	135.6	55.1
	80	131.1	131.1	133.9	119.6	146.7	84.3	122.9	122.9	124.5	115.8	135.9	80.7
	85	138.6	138.6	138.5	138.5	146.8	112.2	130.0	130.0	129.9	129.9	136.1	108.4
	90	146.1	146.1	146.1	146.1	147.6	139.9	137.0	137.0	137.0	137.0	137.4	136.0
8000	75	125.9	125.9	134.8	113.3	147.5	60.2	117.9	117.9	124.9	109.3	136.6	56.8
	80	133.6	133.6	135.3	125.5	147.8	87.6	125.2	125.2	125.9	121.6	136.9	83.9
	85	141.3	141.3	141.2	141.2	148.0	117.5	132.4	132.4	132.3	132.3	137.1	113.6
	90	148.9	148.9	148.9	148.9	149.4	147.4	139.5	139.5	139.5	139.5	139.4	139.4
8800	75	127.9	127.9	135.8	119.6	148.5	61.9	119.7	119.7	125.8	115.8	137.4	58.5
	80	135.8	135.8	136.7	131.1	148.8	90.7	127.1	127.1	127.0	127.0	137.7	87.0
	85	143.6	143.6	143.5	143.5	149.0	122.5	134.4	134.4	134.4	134.4	137.9	118.5
	90	151.4	151.4	151.3	151.3	151.2	151.2	141.6	141.6	141.6	141.6	141.5	141.5
9600	75	129.7	129.7	136.7	126.1	149.3	63.6	121.3	121.3	126.6	98.1	138.1	60.2
	80	137.7	137.7	138.0	136.5	149.7	93.6	128.8	128.8	128.7	128.7	138.5	89.9
	85	145.6	145.6	145.6	145.6	149.9	127.3	136.2	136.2	136.1	136.1	138.7	123.3
	90	152.7	152.7	152.7	152.7	152.7	152.7	143.5	143.5	143.4	143.4	143.3	143.3

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

Table 20. Gross Cooling Capacities (MBH) Both Compressors - 20 Tons TTA240F Condensing Unit with 20 Tons TWE240E Standard/SZVAV/2-Speed VFD Air Handler (IP)

		Ambient Temperature (°F)																	
		85						95						105					
	Ent DB	Entering Wet Bulb (°F)																	
		61		67		73		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
7200	75	237.0	189.3	261.7	156.2	288.4	106.0	226.8	184.2	250.2	151.6	275.6	101.5	215.5	178.8	237.7	146.6	261.6	96.6
	80	238.8	221.9	262.0	180.5	288.4	139.0	229.0	216.9	250.6	175.5	275.6	134.0	218.4	211.6	238.1	170.2	261.7	128.8
	85	246.3	246.3	262.4	212.6	288.5	170.9	237.5	237.5	250.9	207.6	275.7	165.9	227.8	227.8	238.6	202.2	261.9	160.7
	90	258.6	258.6	264.4	244.8	288.8	202.7	249.5	249.5	253.6	239.8	276.0	197.7	239.4	239.4	241.9	234.5	262.2	192.4
8000	75	241.2	197.7	265.9	163.6	292.9	108.1	230.5	192.6	254.1	158.8	279.6	103.4	218.9	187.2	241.2	153.8	265.2	98.5
	80	244.0	233.2	266.4	188.2	292.8	143.2	234.0	228.2	254.5	183.2	279.6	138.2	223.2	222.9	241.7	177.7	265.3	132.9
	85	253.6	253.6	266.7	223.0	293.0	177.9	244.4	244.4	255.1	218.0	279.7	172.8	234.2	234.2	242.4	212.3	265.5	167.5
	90	266.4	266.4	270.1	258.1	293.3	212.4	256.7	256.7	259.0	253.0	280.0	207.3	246.2	246.2	246.0	246.0	265.8	201.9
8800	75	244.7	205.8	269.5	170.8	296.4	110.0	233.8	200.7	257.3	166.0	282.9	104.9	222.0	194.9	244.1	160.9	268.2	99.6
	80	248.7	244.1	270.0	195.6	296.5	147.2	237.7	237.7	257.9	190.5	282.9	142.2	227.5	227.5	244.7	185.0	268.3	136.8
	85	260.0	260.0	270.7	233.1	296.7	184.5	250.4	250.4	258.8	227.6	283.1	179.4	239.8	239.8	246.1	222.1	268.5	174.0
	90	273.2	273.2	275.2	270.8	297.0	221.6	263.1	263.1	263.0	263.0	283.5	216.5	252.1	252.1	252.0	252.0	268.9	211.0
9600	75	247.7	213.2	272.6	178.0	299.7	111.3	236.8	208.0	260.2	173.1	285.7	106.2	225.0	202.4	246.7	168.0	270.7	100.9
	80	252.3	252.3	273.2	202.6	299.7	151.1	242.7	242.7	260.7	197.4	285.7	146.0	232.1	232.1	247.3	191.9	270.8	140.6
	85	265.7	265.7	274.3	242.3	299.9	190.9	255.7	255.7	262.3	237.1	286.0	185.7	244.7	244.7	249.4	231.5	271.1	180.3
	90	279.3	279.3	279.1	279.1	300.3	230.4	268.8	268.8	268.6	268.6	286.4	225.3	257.3	257.3	257.2	257.2	271.5	219.8

		Ambient Temperature (°F)											
		115						125					
	Ent DB	Entering Wet Bulb (°F)											
		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
7200	75	203.2	173.0	224.0	141.1	246.4	91.3	189.6	166.5	208.8	135.1	229.5	85.5
	80	206.9	205.9	224.5	164.4	246.5	123.1	194.3	194.3	209.3	158.0	229.6	116.9
	85	217.1	217.1	225.3	196.5	246.7	155.0	204.9	204.9	210.4	189.8	229.9	148.8
	90	228.2	228.2	229.3	228.7	247.1	186.7	215.6	215.6	215.4	215.4	230.2	180.4
8000	75	206.4	181.1	227.1	148.3	249.5	92.6	192.8	174.5	211.5	142.2	232.1	87.3
	80	211.5	211.5	227.6	171.9	249.7	127.2	199.3	199.3	212.0	165.5	232.3	120.9
	85	222.9	222.9	228.9	206.4	249.9	161.8	210.2	210.2	213.9	199.9	232.6	155.5
	90	234.4	234.4	234.3	234.3	250.2	196.1	221.1	221.1	221.0	221.0	233.0	189.8
8800	75	209.5	188.9	229.7	155.4	252.2	93.9	195.6	182.3	213.7	149.3	234.3	89.1
	80	216.3	216.3	230.3	179.1	252.3	131.1	203.6	203.6	214.3	172.6	234.5	124.8
	85	228.1	228.1	232.3	216.1	252.6	168.2	214.8	214.8	217.1	209.5	234.9	161.9
	90	239.9	239.9	239.7	239.7	252.9	205.2	226.0	226.0	225.9	225.9	235.6	199.0
9600	75	212.2	196.3	232.0	162.4	254.3	96.8	198.1	189.7	215.7	156.3	236.2	90.9
	80	220.5	220.5	232.6	185.9	254.5	134.8	207.4	207.4	216.3	179.4	236.5	128.5
	85	232.6	232.6	235.4	225.4	254.9	174.5	218.8	218.8	220.0	218.8	236.9	168.1
	90	244.6	244.6	244.5	244.5	255.5	214.1	230.3	230.3	230.2	230.2	237.8	207.0

Notes:

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

Table 21. Gross Cooling Capacities (MBH) One Compressor - 25 Tons TTA300F Condensing Unit with 25 Tons TWE300E Air Handler (IP)

		Ambient Temperature (°F)																	
		85						95						105					
	Ent DB	Entering Wet Bulb (°F)																	
		61		67		73		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
9000	75	179.9	179.9	192.5	140.7	207.7	81.1	171.8	171.8	182.6	136.7	196.8	77.0	163.1	163.1	172.3	132.5	185.4	73.2
	80	190.8	190.8	194.7	175.0	210.3	122.3	182.2	182.2	184.9	170.9	199.3	118.0	173.1	173.1	174.7	166.6	188.0	113.7
	85	201.8	201.8	201.8	201.8	212.4	163.5	192.8	192.8	192.7	192.7	201.3	159.4	183.2	183.2	183.2	183.2	189.9	155.1
	90	212.9	212.9	212.9	212.9	215.2	205.4	203.4	203.4	203.4	203.4	204.5	201.2	193.4	193.4	193.3	193.3	193.3	193.3
10000	75	183.4	183.4	194.3	138.4	209.0	82.3	175.0	175.0	184.2	134.2	197.8	78.5	166.1	166.1	173.7	129.8	186.2	74.7
	80	194.6	194.6	196.9	184.4	212.1	126.7	185.7	185.7	187.0	180.2	200.9	122.4	176.3	176.3	176.8	175.9	189.4	118.0
	85	206.0	206.0	205.9	205.9	214.3	171.9	196.6	196.6	196.5	196.5	203.1	167.7	186.7	186.7	186.6	186.6	191.6	163.4
	90	217.4	217.4	217.4	217.4	218.1	217.6	207.5	207.5	207.5	207.5	207.3	207.3	197.1	197.1	197.0	197.0	196.9	196.9
11000	75	186.4	186.4	195.8	143.6	209.8	83.8	177.7	177.7	185.5	139.3	198.5	80.0	168.5	168.5	174.8	134.9	186.7	76.1
	80	197.8	197.8	199.0	193.4	213.6	130.9	188.6	188.6	188.5	188.5	202.3	126.6	179.0	179.0	178.9	178.9	190.6	122.0
	85	209.4	209.4	209.4	209.4	216.1	180.0	199.7	199.7	199.7	199.7	204.7	175.8	189.5	189.5	189.5	189.5	193.0	171.4
	90	221.2	221.2	221.1	221.1	221.0	221.0	210.9	210.9	210.9	210.9	210.7	210.7	200.1	200.1	200.1	200.1	200.0	200.0
12000	75	188.9	188.9	197.1	148.5	210.4	85.2	180.0	180.0	186.6	144.2	198.9	81.4	170.6	170.6	175.9	139.8	187.7	77.6
	80	200.6	200.6	200.5	200.5	214.9	134.9	191.1	191.1	191.1	191.1	203.4	130.5	181.2	181.2	181.1	181.1	191.6	125.9
	85	212.4	212.4	212.4	212.4	217.6	187.8	202.4	202.4	202.4	202.4	206.2	183.5	192.0	192.0	191.9	191.9	194.4	179.0
	90	224.4	224.4	224.4	224.4	224.2	224.2	213.8	213.8	213.8	213.8	213.8	213.8	202.7	202.7	202.7	202.7	202.7	202.7

		Ambient Temperature (°F)											
		115						125					
	Ent DB	Entering Wet Bulb (°F)											
		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
9000	75	154.0	154.0	161.4	128.1	173.3	69.7	144.0	144.0	149.8	123.4	160.6	67.1
	80	163.5	163.5	164.1	162.1	176.1	109.1	153.0	153.0	153.0	153.0	163.3	104.1
	85	173.1	173.1	173.1	173.1	178.0	150.6	162.0	162.0	162.0	162.0	165.3	145.8
	90	182.7	182.7	182.7	182.7	182.6	182.6	171.0	171.0	171.0	171.0	171.0	171.0
10000	75	156.6	156.6	162.6	125.2	174.0	71.4	146.3	146.3	150.8	120.3	161.0	67.3
	80	166.4	166.4	166.3	166.3	177.3	113.3	155.5	155.5	155.4	155.4	164.4	108.2
	85	176.1	176.1	176.1	176.1	179.5	158.8	164.7	164.7	164.6	164.6	166.6	153.9
	90	185.9	185.9	185.9	185.9	185.9	185.9	173.8	173.8	173.8	173.8	173.8	173.8
11000	75	158.8	158.8	163.7	130.3	174.4	73.1	148.2	148.2	151.8	125.2	161.5	67.9
	80	168.7	168.7	168.6	168.6	178.4	117.3	157.5	157.5	157.5	157.5	165.1	113.1
	85	178.7	178.7	178.7	178.7	180.9	166.7	166.9	166.9	166.8	166.8	167.9	161.7
	90	188.7	188.7	188.6	188.6	188.6	188.6	176.2	176.2	176.1	176.1	176.1	176.1
12000	75	160.6	160.6	164.6	135.1	174.9	73.5	149.8	149.8	152.6	130.0	161.7	68.3
	80	170.7	170.7	170.7	170.7	179.2	121.1	159.3	159.3	159.3	159.3	165.7	117.9
	85	180.9	180.9	180.8	180.8	182.1	174.3	168.8	168.8	168.8	168.8	169.1	169.0
	90	191.0	191.0	191.0	191.0	190.9	190.9	178.2	178.2	178.2	178.2	178.2	178.2

Notes:

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

Table 22. Gross Cooling Capacities (MBH) Both Compressors- 25 Tons TTA300F Condensing Unit with 25 Tons TWE300E Air Handler (IP)

		Ambient Temperature (°F)																	
		85						95						105					
	Ent DB	Entering Wet Bulb (°F)																	
		61		67		73		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
9000	75	289.9	240.3	317.7	192.9	347.2	128.2	276.1	233.4	302.5	186.7	330.2	122.2	261.7	226.3	286.4	180.3	312.4	116.1
	80	293.9	284.0	318.8	228.7	347.8	172.0	280.9	277.3	303.6	222.2	330.9	165.7	266.8	266.8	287.5	215.4	313.2	159.1
	85	305.8	305.8	319.5	270.9	348.7	215.2	293.8	293.8	304.6	264.1	331.8	208.8	280.8	280.8	289.0	257.0	314.1	202.2
	90	321.0	321.0	324.1	314.1	349.5	258.1	308.3	308.3	309.7	307.4	332.6	251.7	294.7	294.7	294.6	294.6	314.9	245.0
10000	75	294.6	251.4	322.3	202.0	351.7	130.5	280.6	244.5	306.6	195.8	334.1	124.5	265.9	237.2	290.1	189.3	315.8	117.9
	80	300.1	299.3	323.4	239.2	352.3	177.7	286.7	286.7	307.7	232.6	335.0	171.3	273.6	273.6	291.2	225.8	316.8	164.7
	85	314.4	314.4	324.8	284.7	353.3	224.7	301.6	301.6	309.6	277.9	336.0	218.2	288.0	288.0	293.6	270.7	317.8	211.6
	90	329.8	329.8	329.7	329.7	354.1	271.4	316.5	316.5	316.4	316.4	336.3	263.8	302.4	302.4	302.2	302.2	318.3	256.6
11000	75	298.8	262.0	326.1	211.0	355.2	132.7	284.6	255.0	310.1	204.8	337.2	126.7	269.6	247.7	293.2	198.3	318.4	120.4
	80	305.8	305.8	327.3	249.3	356.2	183.1	293.0	293.0	310.8	241.5	338.4	176.7	279.4	279.4	294.0	234.1	319.9	170.1
	85	321.6	321.6	329.5	298.1	357.2	233.8	308.3	308.3	314.0	291.1	339.5	227.3	294.2	294.2	297.8	283.8	321.0	220.6
	90	337.5	337.5	337.4	337.4	357.6	282.8	323.7	323.7	323.5	323.5	340.0	275.8	308.9	308.9	308.8	308.8	321.9	268.6
12000	75	302.6	272.3	329.4	219.9	358.0	134.9	288.1	265.2	313.0	213.7	339.9	128.9	272.9	257.8	295.9	207.2	320.7	122.6
	80	311.8	311.8	330.2	257.7	359.4	188.4	298.6	298.6	313.9	250.5	341.3	181.9	284.6	284.6	296.8	243.1	322.5	175.2
	85	328.0	328.0	333.7	310.9	360.5	242.6	314.3	314.3	318.0	303.9	342.5	236.1	299.6	299.6	301.6	296.6	323.6	229.3
	90	344.3	344.3	344.2	344.2	361.2	294.5	329.9	329.9	329.8	329.8	343.5	287.5	314.7	314.7	314.6	314.6	325.1	280.2

		Ambient Temperature (°F)											
		115						125					
	Ent DB	Entering Wet Bulb (°F)											
		61		67		73		61		67		73	
CFM	(°F)	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC
9000	75	246.4	218.7	269.2	173.6	293.2	109.3	229.7	210.5	250.5	166.3	272.0	102.5
	80	253.2	253.2	270.3	208.3	294.2	152.3	238.2	238.2	251.1	199.3	273.5	144.8
	85	266.7	266.7	272.3	249.5	295.2	195.3	251.0	251.0	254.2	241.3	274.5	187.8
	90	280.1	280.1	279.9	279.9	295.6	236.7	263.7	263.7	263.6	263.6	275.2	228.6
10000	75	250.2	229.5	272.5	182.5	295.9	111.7	233.3	221.2	253.3	175.2	274.4	104.6
	80	259.4	259.4	273.2	217.1	297.4	157.8	243.7	243.7	254.1	208.8	276.2	150.3
	85	273.3	273.3	276.7	263.1	298.5	204.6	256.9	256.9	258.3	254.8	277.3	197.0
	90	287.0	287.0	286.8	286.8	299.3	249.0	269.9	269.9	269.8	269.8	278.6	240.8
11000	75	253.7	239.9	275.3	191.4	298.3	113.8	236.6	231.5	255.7	184.1	276.6	106.8
	80	264.7	264.7	276.1	226.3	300.1	163.1	248.5	248.5	256.9	218.0	278.5	155.6
	85	278.9	278.9	280.6	276.1	301.2	213.6	261.9	261.9	261.8	261.8	279.2	204.4
	90	293.0	293.0	292.9	292.9	302.6	261.0	275.2	275.2	275.1	275.1	281.5	252.6
12000	75	256.9	249.9	277.6	200.3	300.4	116.0	238.9	238.9	257.7	190.6	278.3	108.9
	80	269.4	269.4	278.8	235.3	302.4	168.2	252.7	252.7	259.3	226.8	280.5	160.6
	85	283.8	283.8	283.7	283.7	303.0	220.7	266.3	266.3	266.2	266.2	281.3	212.2
	90	298.1	298.1	298.1	298.1	305.5	272.5	279.8	279.8	279.7	279.7	284.2	264.0

Notes:

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

Table 23. Gross Cooling Capacities (MBH) 6 Tons TTA073D Condensing Unit Only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	248.4	262.2	269.4	276.9	284.7	292.9
	Capacity (Btuh/1000)	66.4	73.5	81.0	88.7	96.7	105.0
	Unit Power (kW)	4.4	4.4	4.4	4.5	4.5	4.6
75	Head Press (psig)	292.6	299.8	307.3	315.0	323.1	331.5
	Capacity (Btuh/1000)	62.6	69.4	76.4	83.8	91.3	99.1
	Unit Power (kW)	4.7	4.8	4.8	4.9	5.0	5.0
85	Head Press (psig)	333.3	340.8	348.6	356.7	365.1	373.7
	Capacity (Btuh/1000)	58.5	65.0	71.7	78.7	85.8	93.1
	Unit Power (kW)	5.2	5.3	5.3	5.4	5.5	5.5
95	Head Press (psig)	377.5	385.4	393.5	401.9	410.6	419.4
	Capacity (Btuh/1000)	54.2	60.4	66.8	73.4	80.1	87.0
	Unit Power (kW)	5.7	5.8	5.9	5.9	6.0	6.1
105	Head Press (psig)	425.2	433.5	442.1	450.9	459.8	469.0
	Capacity (Btuh/1000)	49.7	55.6	61.7	67.9	74.3	80.8
	Unit Power (kW)	6.4	6.4	6.5	6.5	6.6	6.7
115	Head Press (psig)	476.7	485.5	494.4	503.5	512.7	522.1
	Capacity (Btuh/1000)	45.0	50.6	56.3	62.3	68.3	74.4
	Unit Power (kW)	7.0	7.1	7.1	7.2	7.3	7.3
125	Head Press (psig)	531.8	541.1	550.3	559.6	569.0	578.4
	Capacity (Btuh/1000)	40.0	45.3	50.7	56.3	61.9	67.5
	Unit Power (kW)	7.8	7.8	7.9	7.9	8.0	8.0

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

Figure 4. TTA073D Capacity Curve

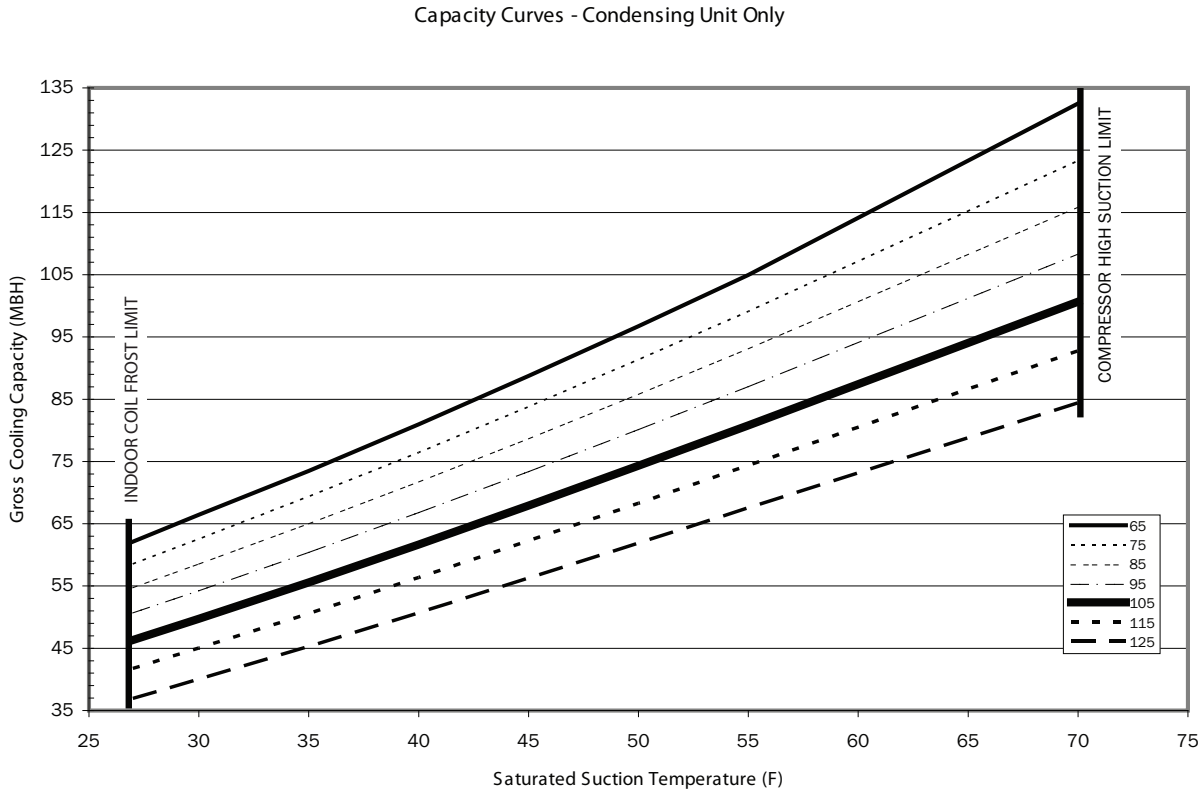


Table 24. Gross Cooling Capacities (MBH) 7.5 Tons TTA090D Condensing Unit Only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	263.0	279.5	287.6	296.2	305.2	314.7
	Capacity (Btuh/1000)	82.1	89.4	97.5	105.9	114.6	123.7
	Unit Power (kW)	5.2	5.3	5.4	5.6	5.7	5.9
75	Head Press (psig)	310.2	318.4	327.0	336.1	345.5	355.4
	Capacity (Btuh/1000)	77.2	84.7	92.4	100.5	108.9	117.5
	Unit Power (kW)	5.6	5.8	5.9	6.1	6.2	6.4
85	Head Press (psig)	352.3	360.9	370.0	379.5	389.4	399.7
	Capacity (Btuh/1000)	72.7	79.8	87.2	94.9	102.9	111.0
	Unit Power (kW)	6.2	6.4	6.5	6.7	6.8	7.0
95	Head Press (psig)	398.1	407.1	416.6	426.5	436.8	447.6
	Capacity (Btuh/1000)	68.0	74.7	81.8	89.1	96.6	104.4
	Unit Power (kW)	6.9	7.0	7.2	7.3	7.5	7.7
105	Head Press (psig)	447.7	457.3	467.2	477.4	488.1	499.2
	Capacity (Btuh/1000)	63.1	69.5	76.2	83.0	90.2	97.5
	Unit Power (kW)	7.6	7.8	7.9	8.1	8.3	8.4
115	Head Press (psig)	501.4	511.3	521.5	532.1	543.1	554.4
	Capacity (Btuh/1000)	58.1	64.1	70.3	76.7	83.4	90.2
	Unit Power (kW)	8.4	8.6	8.8	8.9	9.1	9.2
125	Head Press (psig)	559.0	569.2	579.6	590.3	601.3	612.4
	Capacity (Btuh/1000)	52.7	58.3	64.0	69.9	76.1	82.3
	Unit Power (kW)	9.4	9.5	9.7	9.8	10.0	10.1

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

Figure 5. TTA090D Capacity Curve

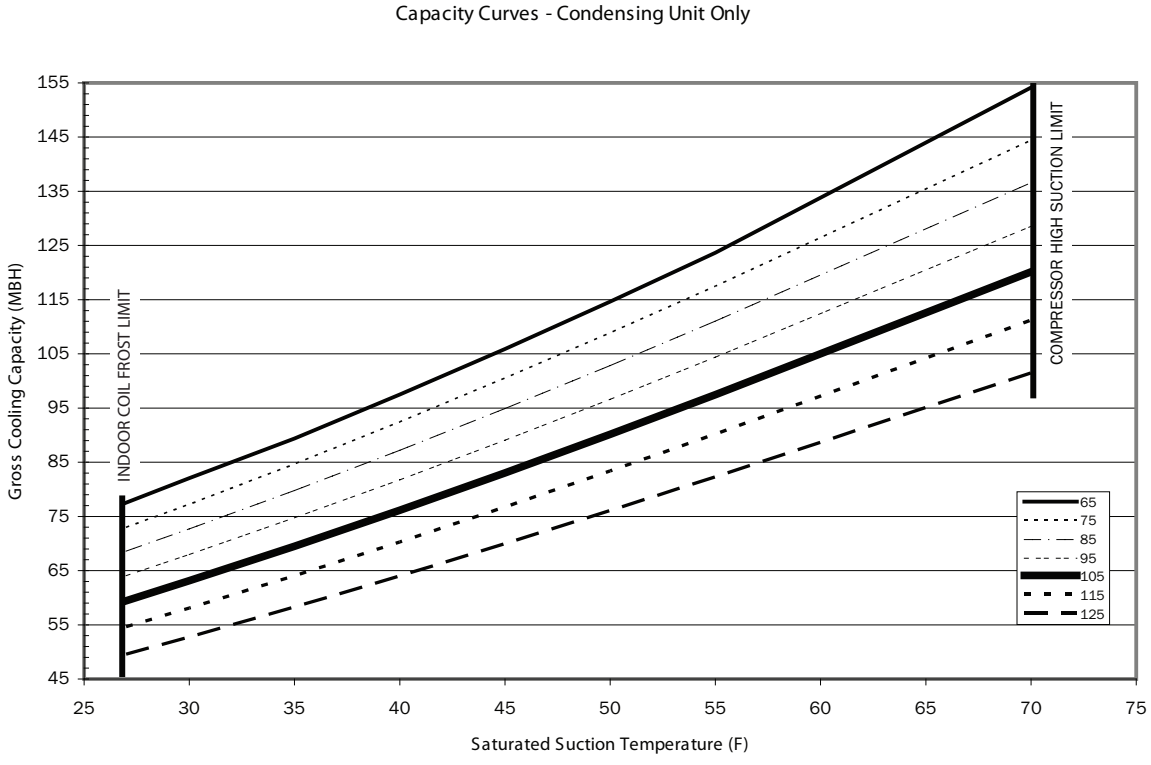


Table 25. Gross Cooling Capacities (MBH) 10 Tons TTA120D Condensing Unit Only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	256.3	263.3	270.7	278.4	286.5	295.0
	Capacity (Btuh/1000)	99.2	110.4	122.0	134.0	146.4	159.2
	Unit Power (kW)	6.6	6.7	6.9	7.1	7.2	7.4
75	Head Press (psig)	293.3	300.6	308.2	316.1	324.4	333.0
	Capacity (Btuh/1000)	94.0	104.6	115.6	126.9	138.7	150.7
	Unit Power (kW)	7.2	7.3	7.5	7.7	7.8	8.0
85	Head Press (psig)	333.8	341.3	349.2	357.4	365.8	374.5
	Capacity (Btuh/1000)	88.5	98.4	108.9	119.6	130.7	142.0
	Unit Power (kW)	7.9	8.0	8.2	8.4	8.5	8.7
95	Head Press (psig)	377.9	385.8	393.9	402.3	410.9	419.7
	Capacity (Btuh/1000)	82.6	92.0	101.9	112.1	122.5	133.1
	Unit Power (kW)	8.7	8.9	9.0	9.2	9.3	9.5
105	Head Press (psig)	425.8	434.0	442.4	451.1	459.9	469.0
	Capacity (Btuh/1000)	76.4	85.3	94.6	104.2	114.1	124.0
	Unit Power (kW)	9.6	9.8	9.9	10.1	10.2	10.4
115	Head Press (psig)	477.7	486.3	495.0	504.0	513.0	522.2
	Capacity (Btuh/1000)	69.9	78.3	87.0	96.1	105.3	114.6
	Unit Power (kW)	10.7	10.8	11.0	11.1	11.2	11.4
125	Head Press (psig)	533.7	542.8	551.9	561.1	570.2	579.5
	Capacity (Btuh/1000)	63.0	70.9	79.1	87.5	96.1	104.7
	Unit Power (kW)	11.8	12.0	12.1	12.2	12.3	12.4

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

Figure 6. TTA120D Capacity Curve

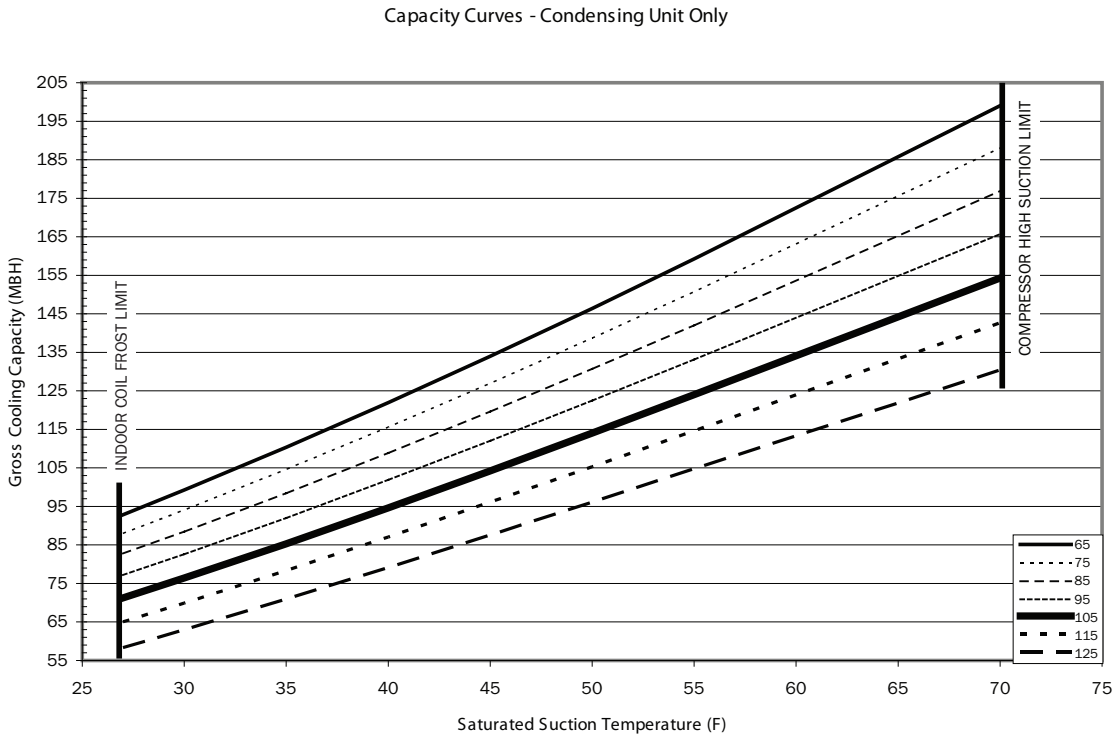


Table 26. Gross Cooling Capacities (MBH) 10 Tons TTA120E Condensing Unit Only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	253.8	260.4	267.5	274.9	282.6	290.7
	Capacity (Btuh/1000)	99.4	110.4	121.8	133.7	145.9	158.5
	Unit Power (kW)	6.4	6.5	6.6	6.7	6.8	6.9
75	Head Press (psig)	290.3	297.2	304.4	312.0	319.9	328.1
	Capacity (Btuh/1000)	93.7	104.0	114.8	126.0	137.5	149.3
	Unit Power (kW)	7.0	7.1	7.2	7.3	7.4	7.6
85	Head Press (psig)	330.4	337.5	345.0	352.8	360.8	369.2
	Capacity (Btuh/1000)	87.6	97.4	107.6	118.1	129.0	140.0
	Unit Power (kW)	7.7	7.8	8.0	8.1	8.2	8.4
95	Head Press (psig)	374.2	381.5	389.2	397.2	405.4	413.9
	Capacity (Btuh/1000)	81.3	90.4	100.0	110.0	120.2	130.6
	Unit Power (kW)	8.6	8.7	8.9	9.0	9.2	9.3
105	Head Press (psig)	421.7	429.3	437.3	445.5	453.9	462.6
	Capacity (Btuh/1000)	74.7	83.3	92.3	101.7	111.2	121.0
	Unit Power (kW)	9.7	9.8	9.9	10.0	10.2	10.3
115	Head Press (psig)	473.3	481.3	489.5	498.0	506.5	515.3
	Capacity (Btuh/1000)	67.7	75.9	84.3	93.1	102.1	111.2
	Unit Power (kW)	10.8	11.0	11.1	11.2	11.3	11.4
125	Head Press (psig)	529.1	537.5	546.0	554.6	563.4	572.3
	Capacity (Btuh/1000)	60.5	68.2	76.0	84.2	92.6	101.0
	Unit Power (kW)	12.1	12.3	12.4	12.5	12.6	12.7

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

Figure 7. TTA120E Capacity Curve

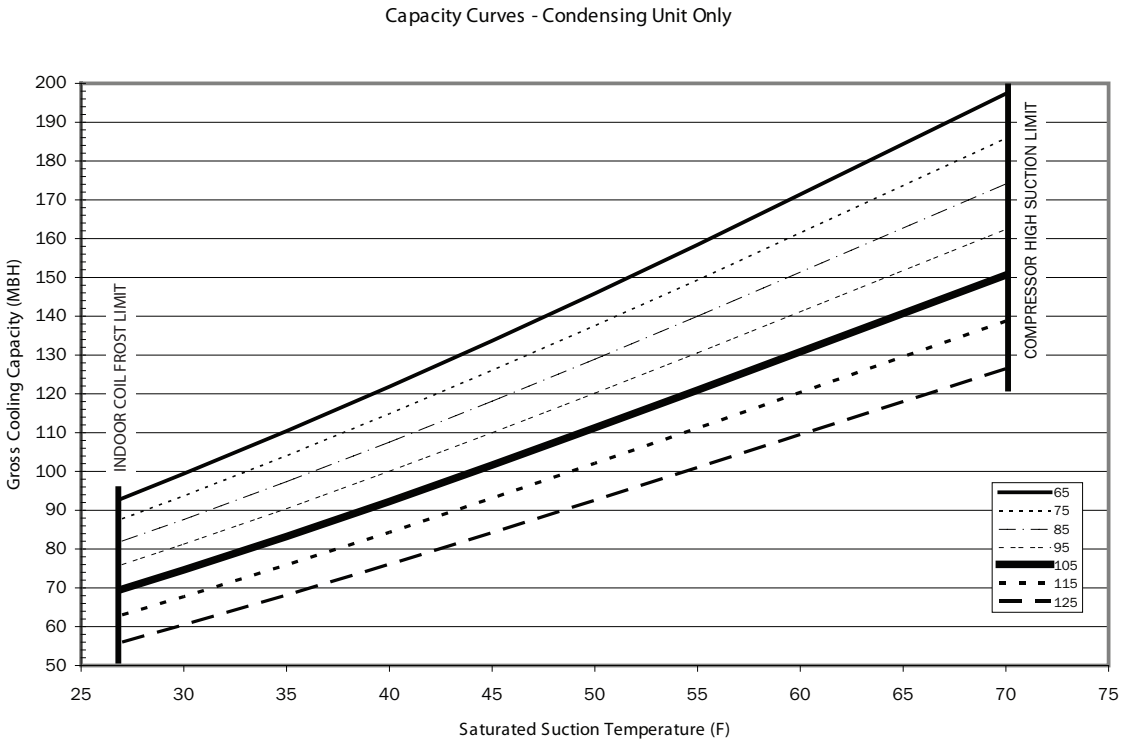


Table 27. Gross Cooling Capacities (MBH) One Compressor - 10 Tons TTA120F Condensing Unit Only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	216.1	219.4	222.9	226.6	230.3	234.4
	Capacity (Btuh/1000)	48.2	54.2	60.8	67.7	74.7	82.3
	Unit Power (kW)	3.5	3.5	3.5	3.5	3.5	3.5
75	Head Press (psig)	250.3	253.7	257.3	261.1	265.1	269.2
	Capacity (Btuh/1000)	45.9	51.6	57.7	64.3	71.1	78.3
	Unit Power (kW)	3.8	3.8	3.8	3.8	3.8	3.9
85	Head Press (psig)	288.2	291.7	295.4	299.3	303.4	307.5
	Capacity (Btuh/1000)	43.4	48.9	54.6	60.8	67.3	74.0
	Unit Power (kW)	4.1	4.1	4.2	4.2	4.2	4.2
95	Head Press (psig)	329.7	333.4	337.2	341.1	345.3	349.5
	Capacity (Btuh/1000)	40.8	46.0	51.4	57.2	63.3	69.7
	Unit Power (kW)	4.5	4.5	4.6	4.6	4.6	4.6
105	Head Press (psig)	375.2	378.9	382.8	386.9	391.1	395.5
	Capacity (Btuh/1000)	37.9	42.9	48.1	53.5	59.2	65.1
	Unit Power (kW)	5.0	5.0	5.0	5.1	5.1	5.1
115	Head Press (psig)	424.6	428.5	432.6	436.7	441.0	445.5
	Capacity (Btuh/1000)	34.9	39.6	44.5	49.6	54.9	60.4
	Unit Power (kW)	5.5	5.5	5.6	5.6	5.6	5.6
125	Head Press (psig)	478.3	482.4	486.5	490.7	495.0	499.3
	Capacity (Btuh/1000)	31.6	36.1	40.7	45.4	50.3	55.3
	Unit Power (kW)	6.1	6.1	6.1	6.2	6.2	6.2

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

Figure 8. TTA120F - One Compressor - Capacity Curve

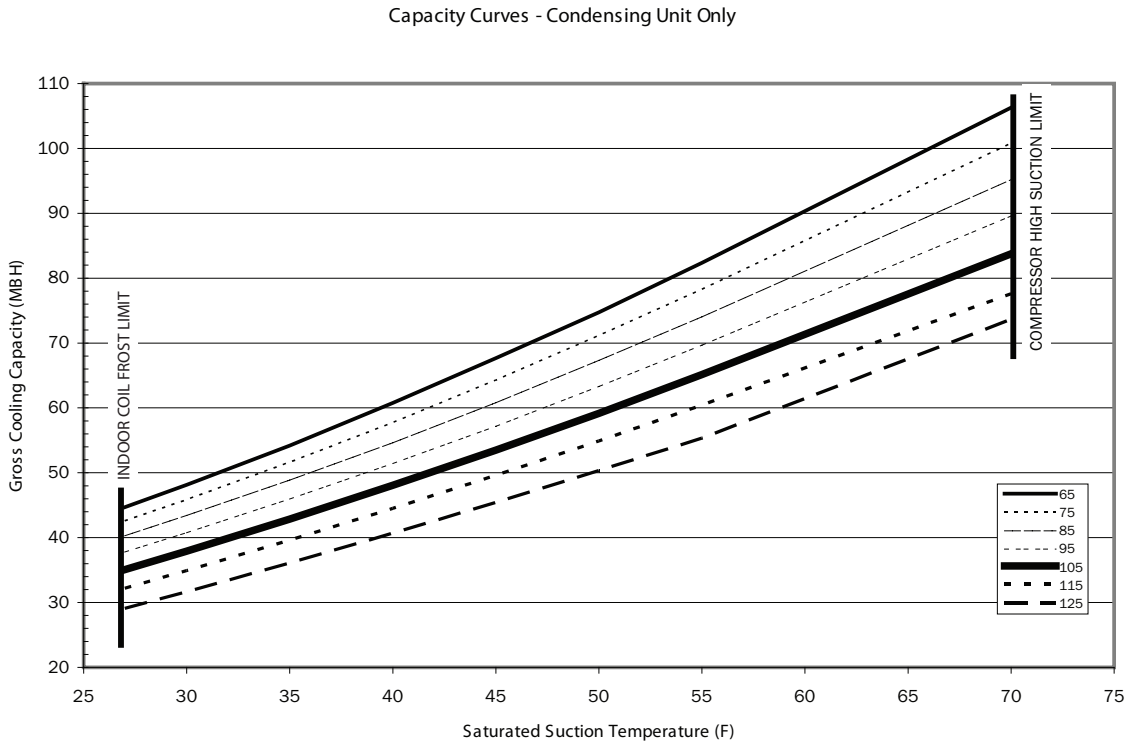


Table 28. Gross Cooling Capacities (MBH) Both Compressors - 10 Tons TTA120F Condensing Unit Only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	255.3	262.3	269.6	277.3	285.3	293.7
	Capacity (Btuh/1000)	100.9	112.0	123.6	135.8	148.3	161.3
	Unit Power (kW)	6.5	6.6	6.7	6.8	7.0	7.1
75	Head Press (psig)	291.9	299.1	306.6	314.5	322.7	331.3
	Capacity (Btuh/1000)	95.7	106.2	117.3	128.7	140.6	152.9
	Unit Power (kW)	7.2	7.3	7.4	7.6	7.7	7.9
85	Head Press (psig)	331.9	339.4	347.2	355.3	363.7	372.5
	Capacity (Btuh/1000)	90.2	100.2	110.6	121.5	132.8	144.3
	Unit Power (kW)	8.0	8.1	8.3	8.4	8.6	8.7
95	Head Press (psig)	375.4	383.2	391.3	399.6	408.3	417.2
	Capacity (Btuh/1000)	84.4	93.9	103.8	114.1	124.7	135.5
	Unit Power (kW)	9.0	9.1	9.2	9.4	9.5	9.6
105	Head Press (psig)	422.5	430.6	439.0	447.6	456.5	465.6
	Capacity (Btuh/1000)	78.2	87.3	96.6	106.3	116.3	126.5
	Unit Power (kW)	10.0	10.1	10.3	10.4	10.5	10.7
115	Head Press (psig)	473.4	481.9	490.6	499.4	508.5	517.7
	Capacity (Btuh/1000)	71.8	80.4	89.2	98.4	107.7	117.2
	Unit Power (kW)	11.2	11.3	11.4	11.5	11.6	11.8
125	Head Press (psig)	527.9	536.8	545.8	554.9	564.1	573.3
	Capacity (Btuh/1000)	65.0	73.1	81.4	89.9	98.6	107.4
	Unit Power (kW)	12.4	12.5	12.6	12.7	12.8	12.9

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

Figure 9. TTA120F - Both Compressors - Capacity Curve

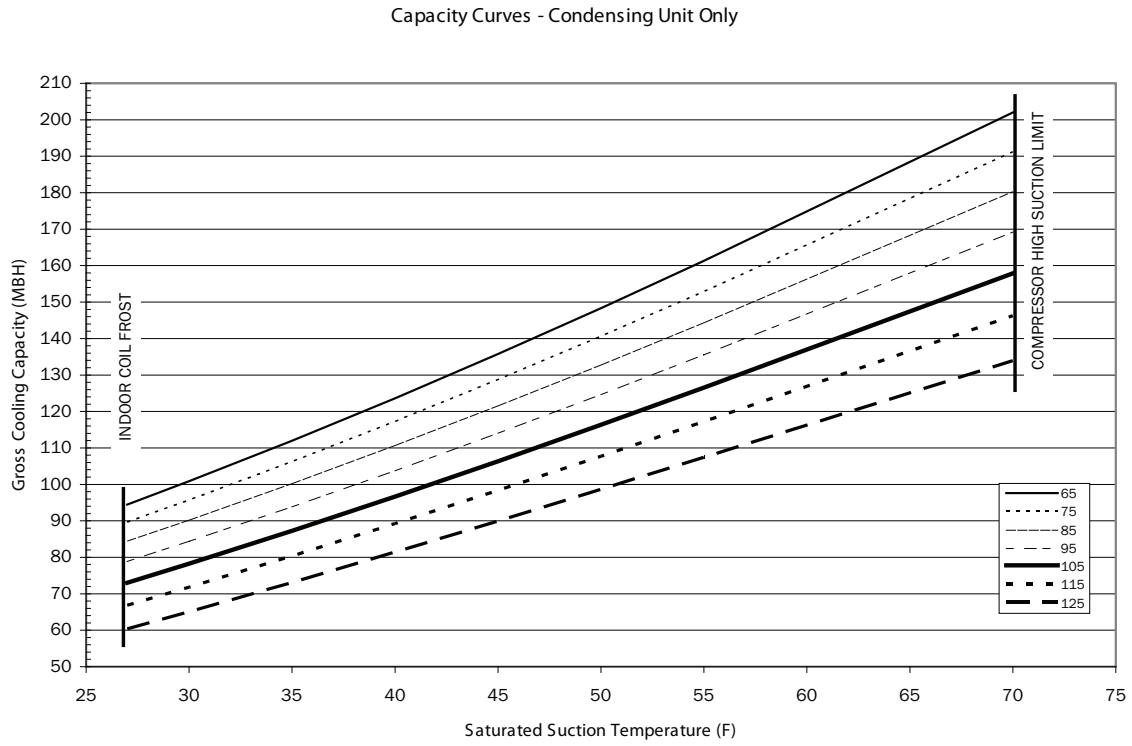


Table 29. Gross Cooling Capacities (MBH) 12.5 Tons TTA150E Condensing Unit Only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	271.8	279.9	288.4	297.2	306.4	316.1
	Capacity (Btuh/1000)	131.3	145.2	159.6	174.5	189.8	205.4
	Unit Power (kW)	9.0	9.1	9.2	9.3	9.5	9.6
75	Head Press (psig)	309.7	318.0	326.8	335.9	345.4	355.2
	Capacity (Btuh/1000)	123.8	137.0	150.6	164.7	179.1	193.7
	Unit Power (kW)	9.8	9.9	10.1	10.2	10.4	10.5
85	Head Press (psig)	350.9	359.6	368.6	378.0	387.8	397.8
	Capacity (Btuh/1000)	115.8	128.3	141.2	154.5	168.1	181.9
	Unit Power (kW)	10.7	10.9	11.0	11.2	11.4	11.6
95	Head Press (psig)	395.5	404.6	414.0	423.6	433.6	443.9
	Capacity (Btuh/1000)	107.3	119.2	131.5	144.0	156.9	169.9
	Unit Power (kW)	11.8	12.0	12.1	12.3	12.5	12.6
105	Head Press (psig)	443.7	453.3	463.1	473.2	483.5	494.0
	Capacity (Btuh/1000)	98.3	109.7	121.4	133.3	145.4	157.7
	Unit Power (kW)	13.1	13.2	13.4	13.5	13.7	13.8
115	Head Press (psig)	495.8	505.8	516.0	526.5	537.2	547.9
	Capacity (Btuh/1000)	89.0	99.8	110.9	122.2	133.6	145.1
	Unit Power (kW)	14.4	14.6	14.7	14.9	15.0	15.1
125	Head Press (psig)	551.8	562.5	573.2	583.8	594.7	605.6
	Capacity (Btuh/1000)	79.2	89.4	99.9	110.5	121.2	131.9
	Unit Power (kW)	15.9	16.0	16.2	16.3	16.4	16.5

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

Figure 10. TTA150E Capacity Curve

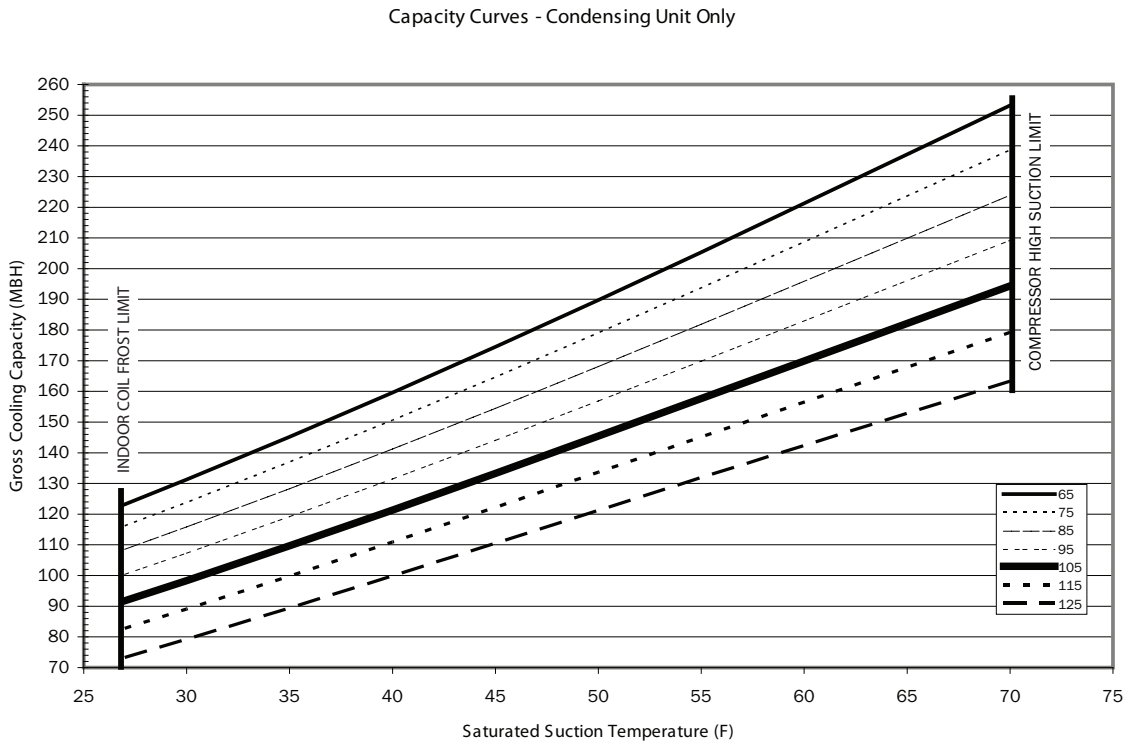


Table 30. Gross Cooling Capacities (MBH) 15 Tons TTA180E Condensing Unit Only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	239.0	243.9	249.0	254.5	260.2	266.2
	Capacity (Btuh/1000)	160.0	176.7	194.3	212.8	231.8	252.0
	Unit Power (kW)	10.6	10.8	11.0	11.2	11.4	11.6
75	Head Press (psig)	274.6	279.8	285.2	290.9	296.9	303.2
	Capacity (Btuh/1000)	150.8	166.9	183.9	201.7	220.2	239.4
	Unit Power (kW)	11.4	11.6	11.8	12.0	12.2	12.5
85	Head Press (psig)	313.9	319.3	325.0	330.9	337.2	343.6
	Capacity (Btuh/1000)	141.5	156.7	173.0	190.1	207.8	226.2
	Unit Power (kW)	12.3	12.5	12.8	13.0	13.2	13.5
95	Head Press (psig)	356.8	362.5	368.4	374.6	381.0	387.7
	Capacity (Btuh/1000)	131.8	146.3	161.7	178.0	194.9	212.4
	Unit Power (kW)	13.5	13.7	13.9	14.1	14.4	14.6
105	Head Press (psig)	403.5	409.4	415.4	421.8	428.4	435.3
	Capacity (Btuh/1000)	121.7	135.4	149.9	165.3	181.3	197.9
	Unit Power (kW)	14.8	15.0	15.2	15.4	15.7	15.9
115	Head Press (psig)	454.2	460.3	466.5	472.9	479.7	486.7
	Capacity (Btuh/1000)	111.2	124.1	137.6	152.0	167.0	182.5
	Unit Power (kW)	16.3	16.5	16.7	16.9	17.1	17.3
125	Head Press (psig)	508.9	515.0	521.3	527.8	534.5	541.5
	Capacity (Btuh/1000)	100.1	112.0	124.6	137.7	151.7	166.1
	Unit Power (kW)	18.0	18.1	18.3	18.5	18.7	18.9

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

Figure 11. TTA180E Capacity Curve

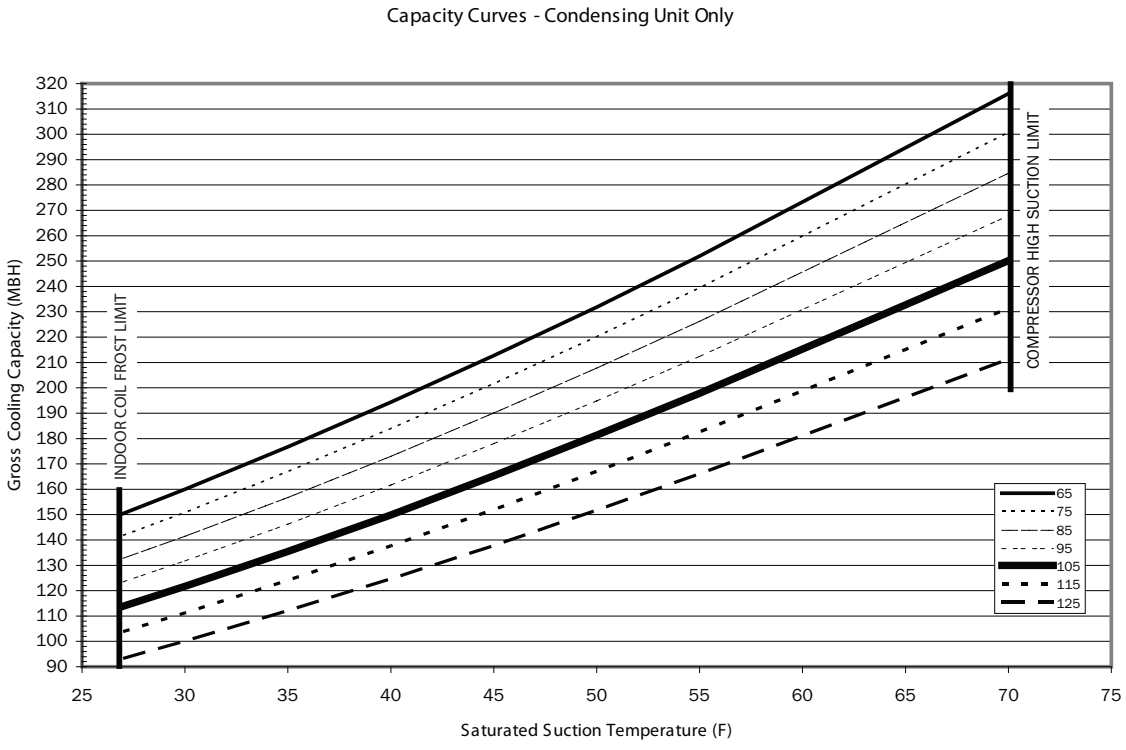


Table 31. Gross Cooling Capacities (MBH) One Compressor - 15 Tons TTA180F Condensing Unit Only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	209.0	211.2	213.6	216.1	218.6	221.4
	Capacity (Btuh/1000)	80.6	89.0	98.0	107.4	117.1	127.6
	Unit Power (kW)	6.2	6.2	6.3	6.4	6.5	6.5
75	Head Press (psig)	243.0	245.3	247.8	250.4	253.2	256.1
	Capacity (Btuh/1000)	76.5	84.7	93.4	102.5	112.0	122.0
	Unit Power (kW)	6.5	6.5	6.6	6.7	6.8	6.9
85	Head Press (psig)	280.7	283.2	285.8	288.6	291.5	294.5
	Capacity (Btuh/1000)	72.4	80.2	88.6	97.3	106.6	116.2
	Unit Power (kW)	6.9	6.9	7.0	7.1	7.2	7.2
95	Head Press (psig)	322.4	325.0	327.8	330.6	333.7	336.8
	Capacity (Btuh/1000)	68.0	75.5	83.5	91.9	100.8	110.0
	Unit Power (kW)	7.4	7.4	7.5	7.6	7.7	7.7
105	Head Press (psig)	368.2	370.9	373.7	376.7	379.8	383.1
	Capacity (Btuh/1000)	63.5	70.6	78.2	86.2	94.6	103.4
	Unit Power (kW)	8.0	8.0	8.1	8.2	8.2	8.3
115	Head Press (psig)	418.2	421.1	423.9	427.0	430.2	433.5
	Capacity (Btuh/1000)	58.8	65.5	72.5	80.1	88.0	96.3
	Unit Power (kW)	8.7	8.7	8.8	8.9	8.9	9.0
125	Head Press (psig)	472.9	475.8	478.7	481.7	485.0	488.3
	Capacity (Btuh/1000)	53.7	59.9	66.5	73.5	80.9	88.6
	Unit Power (kW)	9.5	9.5	9.6	9.6	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 12. TTA180F - One Compressor - Capacity Curve

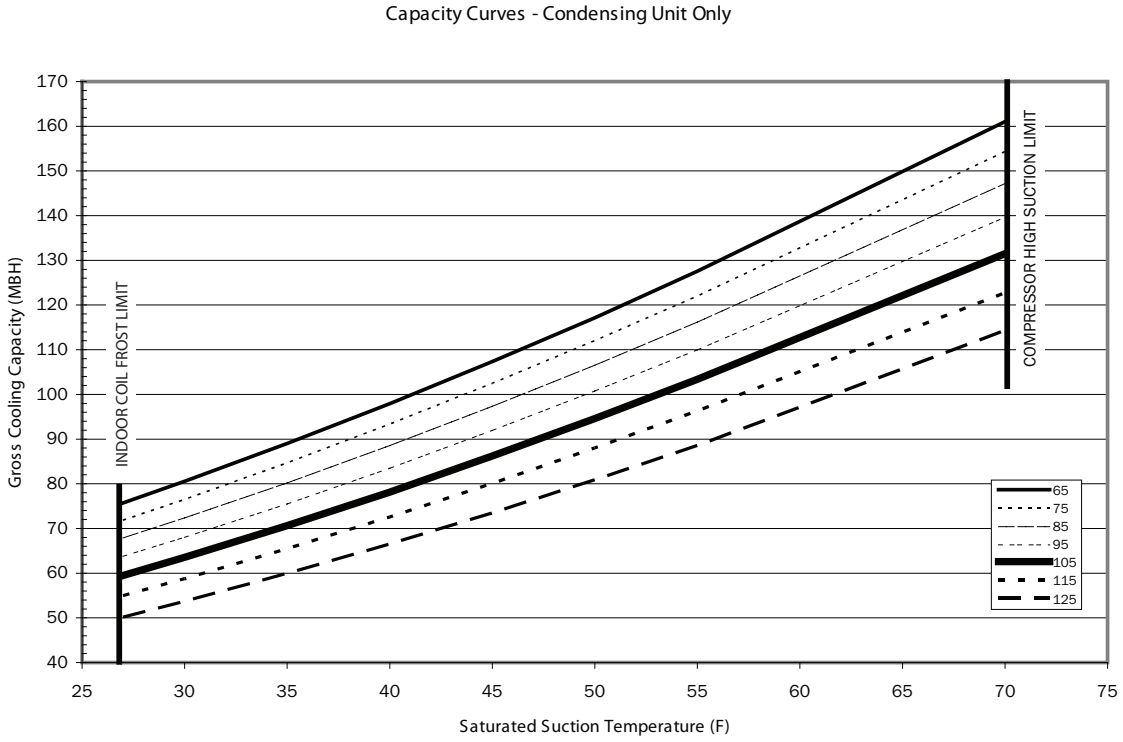


Table 32. Gross Cooling Capacities (MBH) Both Compressors - 15 Tons TTA180F Condensing Unit Only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	238.6	243.4	248.5	253.8	259.5	265.4
	Capacity (Btuh/1000)	165.0	181.0	197.9	215.6	234.1	253.4
	Unit Power (kW)	10.7	10.9	11.1	11.3	11.6	11.8
75	Head Press (psig)	274.3	279.3	284.6	290.2	296.1	302.2
	Capacity (Btuh/1000)	156.6	172.0	188.2	205.3	223.0	241.5
	Unit Power (kW)	11.5	11.7	11.9	12.1	12.4	12.6
85	Head Press (psig)	313.5	318.8	324.3	330.2	336.3	342.6
	Capacity (Btuh/1000)	147.9	162.6	178.2	194.4	211.4	229.0
	Unit Power (kW)	12.5	12.7	12.9	13.1	13.4	13.6
95	Head Press (psig)	356.4	361.9	367.7	373.7	380.0	386.6
	Capacity (Btuh/1000)	138.8	152.8	167.6	183.1	199.2	215.9
	Unit Power (kW)	13.6	13.8	14.1	14.3	14.5	14.7
105	Head Press (psig)	403.1	408.8	414.8	420.9	427.4	434.1
	Capacity (Btuh/1000)	129.3	142.6	156.5	171.1	186.2	202.0
	Unit Power (kW)	15.0	15.2	15.4	15.6	15.8	16.0
115	Head Press (psig)	453.8	459.7	465.7	472.0	478.6	485.4
	Capacity (Btuh/1000)	119.3	131.8	144.8	158.4	172.6	187.3
	Unit Power (kW)	16.5	16.7	16.9	17.1	17.3	17.5
125	Head Press (psig)	508.4	514.4	520.5	526.8	533.4	540.2
	Capacity (Btuh/1000)	108.7	120.2	132.2	144.8	157.9	171.4
	Unit Power (kW)	18.1	18.3	18.5	18.7	18.9	19.1

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

Figure 13. TTA180F - Both Compressors - Capacity Curve

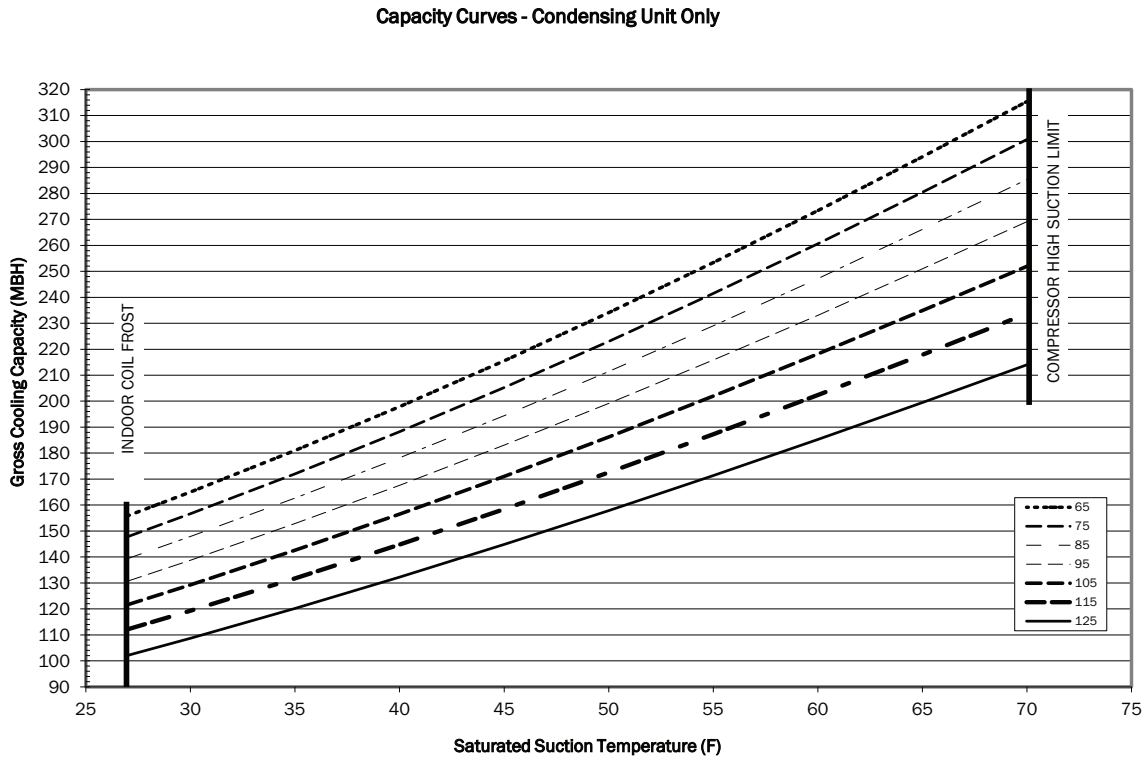


Table 33. Gross Cooling Capacities (MBH) 20 Tons TTA240E Condensing Unit Only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	270.6	278.9	287.7	297.0	306.7	316.8
	Capacity (Btuh/1000)	240.3	265.6	292.1	319.9	348.8	378.7
	Unit Power (kW)	16.3	16.8	17.3	17.8	18.3	18.9
75	Head Press (psig)	308.8	317.5	326.6	336.2	346.1	356.5
	Capacity (Btuh/1000)	228.7	252.7	277.8	304.1	331.4	359.6
	Unit Power (kW)	17.6	18.0	18.6	19.1	19.7	20.2
85	Head Press (psig)	350.6	359.6	369.0	378.8	389.0	399.6
	Capacity (Btuh/1000)	216.3	238.9	262.7	287.5	313.2	339.7
	Unit Power (kW)	19.0	19.5	20.1	20.6	21.2	21.8
95	Head Press (psig)	396.0	405.2	414.9	424.9	435.4	446.2
	Capacity (Btuh/1000)	203.1	224.4	246.7	270.0	294.1	319.0
	Unit Power (kW)	20.7	21.2	21.8	22.3	22.9	23.5
105	Head Press (psig)	445.1	454.7	464.7	475.0	485.7	496.7
	Capacity (Btuh/1000)	189.1	209.1	230.0	251.8	274.3	297.5
	Unit Power (kW)	22.7	23.2	23.7	24.2	24.8	25.3
115	Head Press (psig)	498.3	508.2	518.4	528.9	539.7	550.8
	Capacity (Btuh/1000)	174.3	192.9	212.4	232.6	253.5	274.9
	Unit Power (kW)	24.8	25.3	25.8	26.3	26.9	27.4
125	Head Press (psig)	555.5	565.7	576.0	586.6	597.4	608.4
	Capacity (Btuh/1000)	158.5	175.7	193.6	212.1	231.2	250.6
	Unit Power (kW)	27.1	27.6	28.1	28.6	29.1	29.6

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

Figure 14. TTA240E Capacity Curve

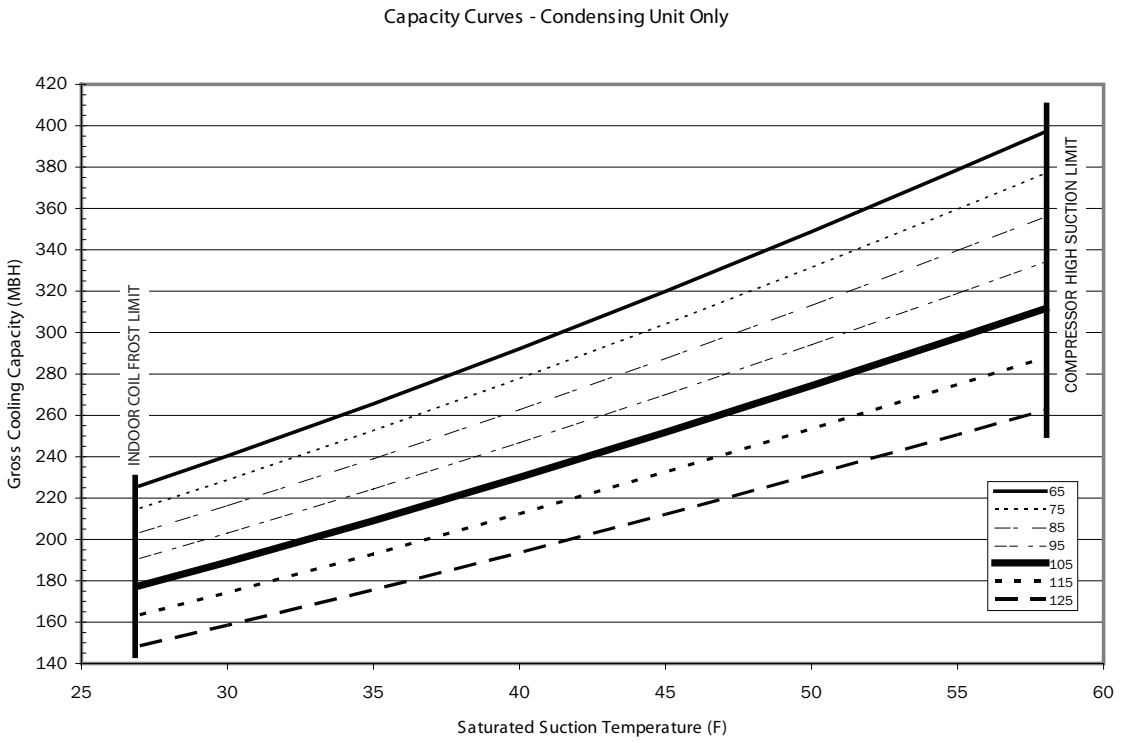


Table 34. Gross Cooling Capacities (MBH) One Compressor - 20 Tons TTA240F Condensing Unit Only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	219.2	222.7	226.3	230.2	234.2	238.5
	Capacity (Btuh/1000)	118.3	131.2	144.8	159.2	174.4	190.3
	Unit Power (kW)	8.5	8.7	8.8	9.0	9.1	9.3
75	Head Press (psig)	253.9	257.6	261.4	265.4	269.6	274.0
	Capacity (Btuh/1000)	113.1	125.3	138.3	152.0	166.3	181.3
	Unit Power (kW)	9.0	9.1	9.3	9.5	9.6	9.8
85	Head Press (psig)	292.3	296.1	300.1	304.2	308.5	313.0
	Capacity (Btuh/1000)	107.4	119.0	131.2	144.1	157.7	171.8
	Unit Power (kW)	9.5	9.7	9.9	10.0	10.2	10.4
95	Head Press (psig)	334.5	338.4	342.4	346.7	351.1	355.7
	Capacity (Btuh/1000)	101.2	112.1	123.6	135.8	148.4	161.6
	Unit Power (kW)	10.3	10.4	10.6	10.8	10.9	11.1
105	Head Press (psig)	380.5	384.5	388.6	392.9	397.3	401.9
	Capacity (Btuh/1000)	94.4	104.7	115.4	126.7	138.5	150.8
	Unit Power (kW)	11.1	11.2	11.4	11.6	11.7	11.9
115	Head Press (psig)	430.5	434.6	438.7	443.0	447.5	452.1
	Capacity (Btuh/1000)	87.1	96.6	106.6	117.0	127.8	139.1
	Unit Power (kW)	12.0	12.2	12.3	12.5	12.7	12.8
125	Head Press (psig)	484.8	488.4	492.3	496.2	500.0	504.2
	Capacity (Btuh/1000)	79.2	87.5	96.3	105.2	113.9	122.4
	Unit Power (kW)	13.1	13.2	13.4	13.5	13.6	13.8

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

Figure 15. TTA240F - One Compressor - Capacity Curves

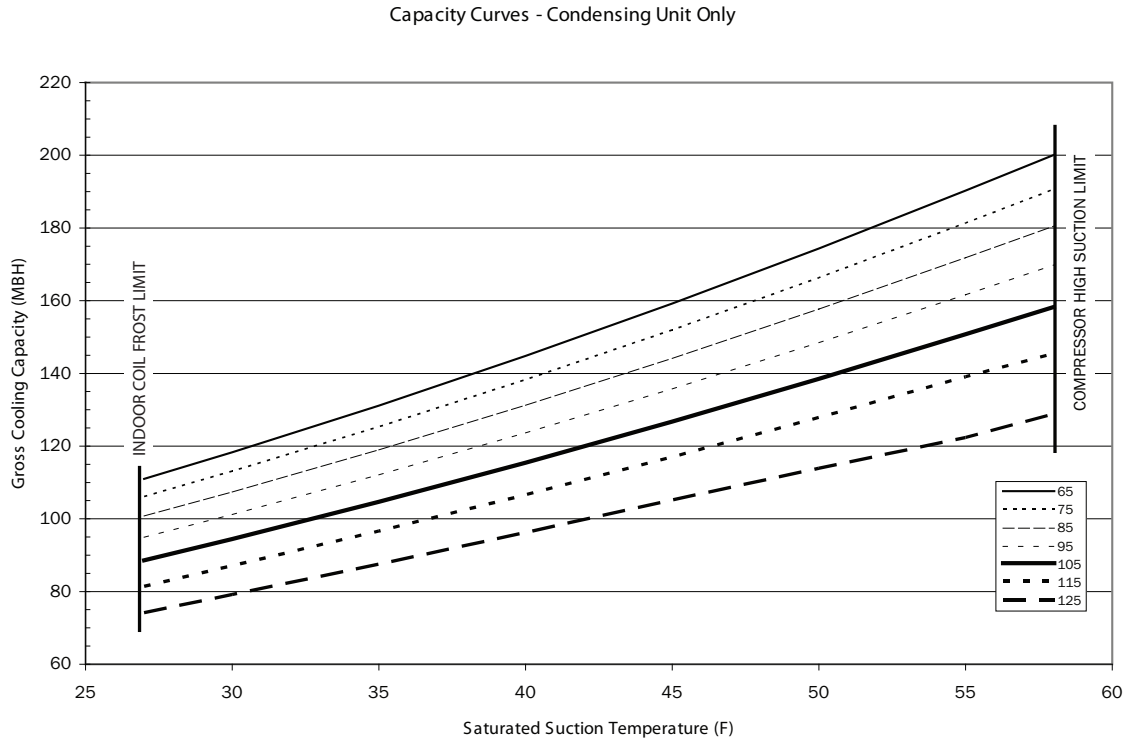


Table 35. Gross Cooling Capacities (MBH) Both Compressors - 20 Tons TTA240F Condensing Unit Only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	269.0	277.3	286.1	295.4	305.1	315.3
	Capacity (Btuh/1000)	238.4	263.5	289.8	317.2	345.7	375.2
	Unit Power (kW)	16.3	16.7	17.2	17.8	18.3	18.9
75	Head Press (psig)	306.5	315.0	324.0	333.5	343.5	353.8
	Capacity (Btuh/1000)	226.5	250.2	275.1	301.0	327.9	355.5
	Unit Power (kW)	17.5	18.0	18.5	19.0	19.6	20.2
85	Head Press (psig)	347.3	356.1	365.3	375.0	385.1	395.6
	Capacity (Btuh/1000)	213.8	236.2	259.6	283.9	309.1	335.1
	Unit Power (kW)	18.9	19.4	20.0	20.5	21.1	21.7
95	Head Press (psig)	391.6	400.6	410.0	419.8	430.0	440.6
	Capacity (Btuh/1000)	200.2	221.3	243.2	266.0	289.5	313.7
	Unit Power (kW)	20.6	21.1	21.6	22.2	22.7	23.3
105	Head Press (psig)	439.4	448.6	458.3	468.3	478.6	489.3
	Capacity (Btuh/1000)	185.9	205.6	226.1	247.3	269.2	291.6
	Unit Power (kW)	22.5	23.0	23.5	24.0	24.6	25.1
115	Head Press (psig)	491.0	500.4	510.1	520.2	530.6	541.4
	Capacity (Btuh/1000)	170.8	189.1	208.0	227.7	247.9	268.5
	Unit Power (kW)	24.6	25.0	25.5	26.0	26.6	27.1
125	Head Press (psig)	546.2	555.7	565.5	575.6	586.0	596.5
	Capacity (Btuh/1000)	154.7	171.5	188.8	206.8	225.2	243.9
	Unit Power (kW)	26.8	27.3	27.7	28.2	28.7	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 16. TTA240F - Both Compressors - Capacity Curves

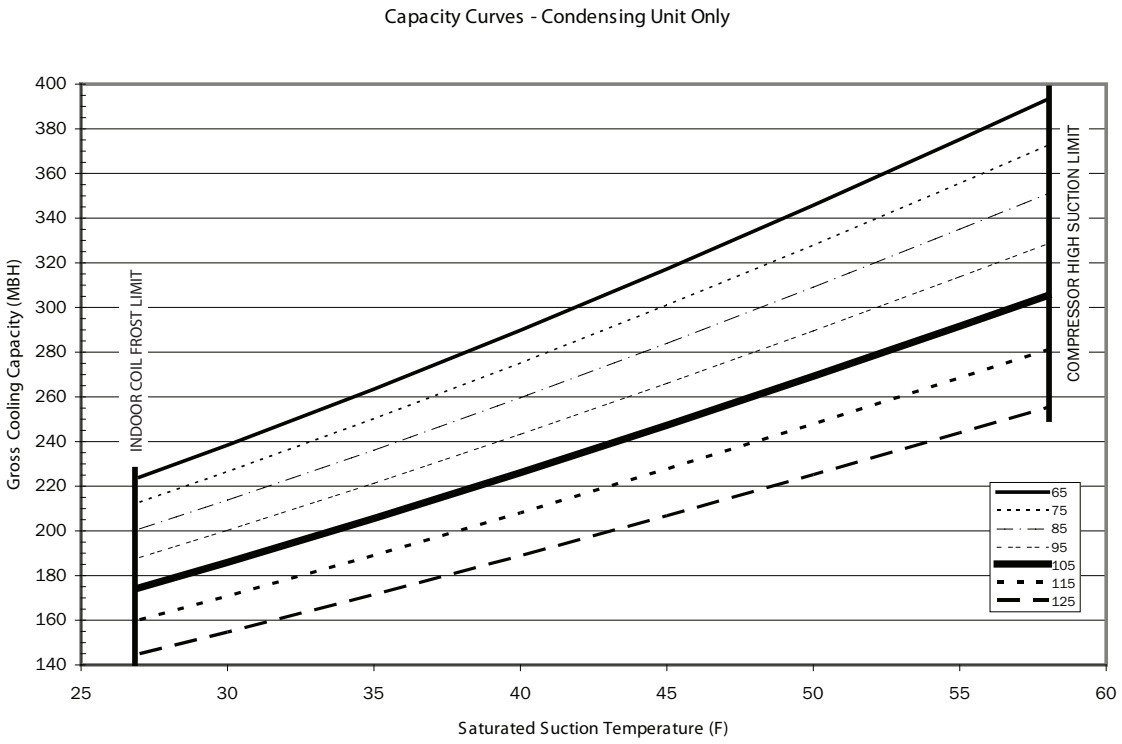


Table 36. Gross Cooling Capacities (MBH) One Compressor - 25 Tons TTA300F Condensing Unit Only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	225.1	228.9	232.9	237.1	241.5	246.1
	Capacity (Btuh/1000)	141.2	155.9	171.5	187.8	204.8	222.7
	Unit Power (kW)	9.1	9.3	9.4	9.6	9.7	9.9
75	Head Press (psig)	260.4	264.3	268.5	272.8	277.4	282.1
	Capacity (Btuh/1000)	134.7	148.5	163.1	178.5	194.6	211.3
	Unit Power (kW)	9.8	9.9	10.0	10.2	10.4	10.5
85	Head Press (psig)	299.3	303.4	307.7	312.2	316.9	321.7
	Capacity (Btuh/1000)	127.6	140.7	154.5	169.0	184.2	200.0
	Unit Power (kW)	10.5	10.7	10.8	11.0	11.1	11.3
95	Head Press (psig)	341.9	346.2	350.6	355.3	360.1	365.0
	Capacity (Btuh/1000)	120.1	132.6	145.7	159.4	173.6	188.5
	Unit Power (kW)	11.5	11.6	11.8	11.9	12.1	12.2
105	Head Press (psig)	388.4	392.9	397.4	402.2	407.1	412.1
	Capacity (Btuh/1000)	112.2	124.0	136.4	149.4	162.8	176.7
	Unit Power (kW)	12.6	12.7	12.8	13.0	13.1	13.3
115	Head Press (psig)	438.9	443.6	448.3	453.1	458.1	463.2
	Capacity (Btuh/1000)	103.8	115.1	126.8	139.0	151.6	164.6
	Unit Power (kW)	13.8	13.9	14.0	14.2	14.3	14.5
125	Head Press (psig)	493.6	498.5	503.3	508.2	513.2	518.2
	Capacity (Btuh/1000)	94.9	105.6	116.6	128.0	139.8	151.8
	Unit Power (kW)	15.2	15.3	15.4	15.5	15.7	15.8

Note: Performance data calculated at 15°F subcooling and 20°F superheat and does not include capacity loss due to refrigerant lines.

Figure 17. TTA300F - One Compressor - Capacity Curves

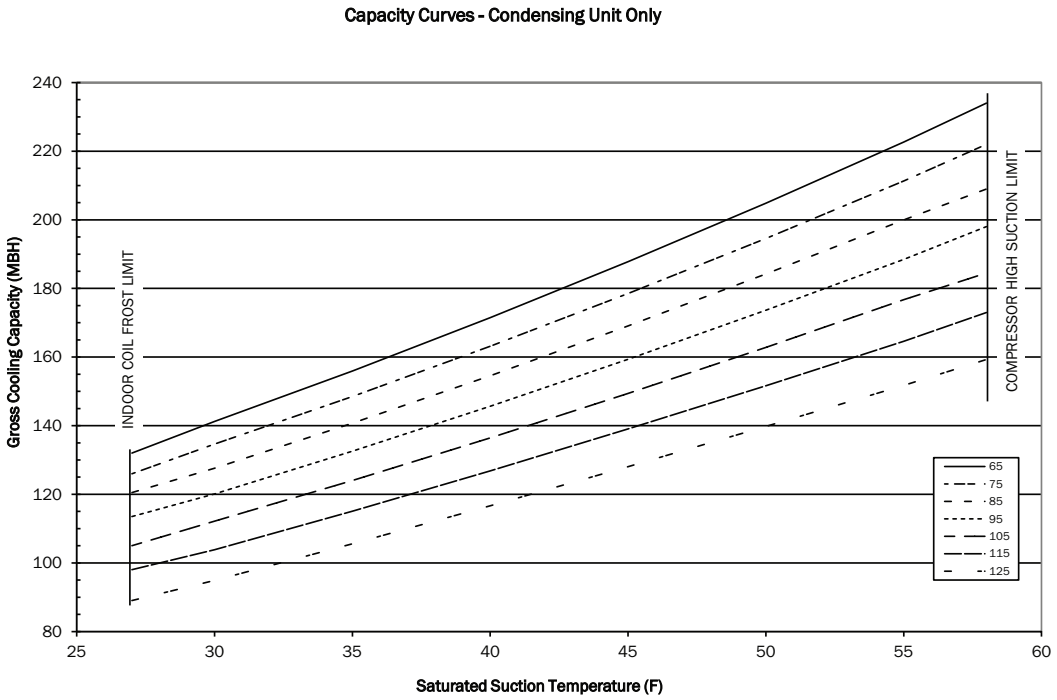


Table 37. Gross Cooling Capacities (MBH) Both Compressors - 25 Tons TTA300F Condensing Unit Only (IP)

Outdoor Temp (°F)		Suction Temperature (°F)					
		30	35	40	45	50	55
65	Head Press (psig)	267.8	275.4	283.4	291.8	300.6	309.7
	Capacity (Btuh/1000)	281.2	308.3	336.5	365.8	396.0	426.9
	Unit Power (kW)	17.5	18.0	18.4	18.9	19.4	19.9
75	Head Press (psig)	305.3	313.2	321.5	330.1	339.1	348.4
	Capacity (Btuh/1000)	266.6	292.1	318.8	346.3	374.7	403.7
	Unit Power (kW)	19.1	19.6	20.0	20.5	21.0	21.6
85	Head Press (psig)	346.2	354.4	362.9	371.8	381.0	390.4
	Capacity (Btuh/1000)	251.2	275.4	300.5	326.5	353.1	380.3
	Unit Power (kW)	21.0	21.4	21.9	22.4	22.9	23.5
95	Head Press (psig)	390.5	399.0	407.7	416.8	426.2	435.8
	Capacity (Btuh/1000)	235.0	257.9	281.6	306.0	331.0	356.4
	Unit Power (kW)	23.1	23.5	24.0	24.5	25.0	25.6
105	Head Press (psig)	438.2	447.1	456.2	465.5	475.1	484.9
	Capacity (Btuh/1000)	218.1	239.8	262.2	285.1	308.5	332.1
	Unit Power (kW)	25.4	25.9	26.4	26.9	27.4	27.9
115	Head Press (psig)	489.7	498.8	508.2	517.7	527.5	537.3
	Capacity (Btuh/1000)	200.4	220.9	242.0	263.4	285.1	306.9
	Unit Power (kW)	28.0	28.5	29.0	29.5	30.0	30.5
125	Head Press (psig)	544.6	554.1	563.6	573.3	583.0	592.6
	Capacity (Btuh/1000)	181.7	201.0	220.5	240.4	260.3	280.2
	Unit Power (kW)	30.9	31.3	31.8	32.3	32.7	33.2

Note: Performance data calculated at 15°F subcooling and 20°F superheat and does not include capacity loss due to refrigerant lines.

Figure 18. TTA300F - Both Compressors - Capacity Curves

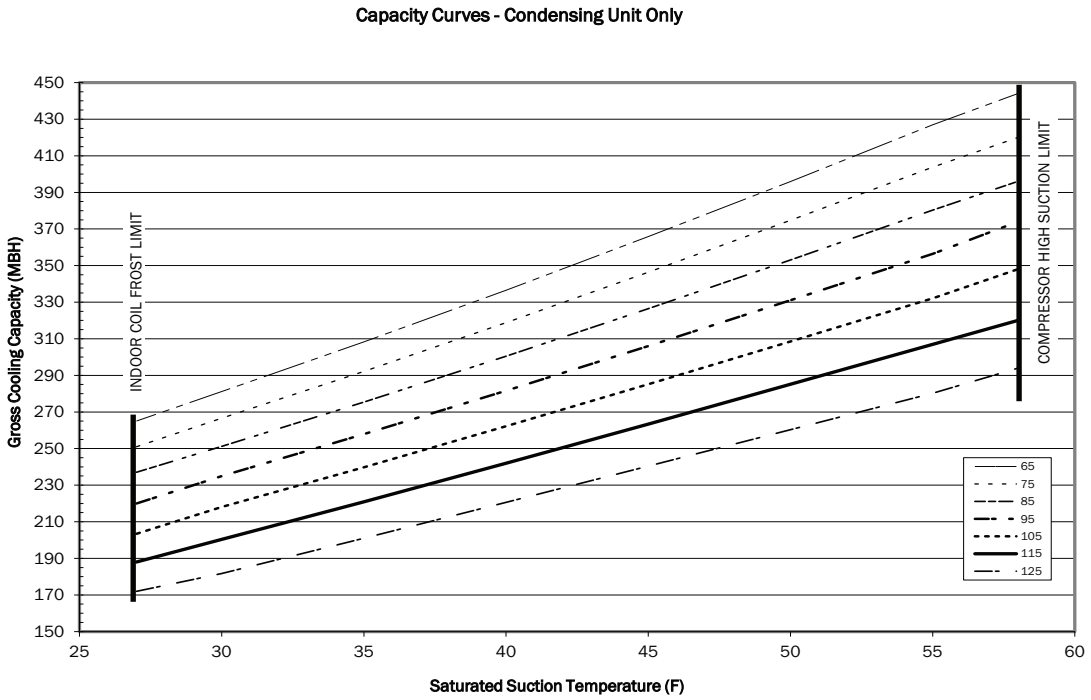


Table 38. Evaporator Fan Performance —TWE061 — Standard Air Handler

	External Static Pressure (Inches of Water Gauge)																			
	.10"		.20"		.30"		.40"		.50"		.60"		.70"		.80"		.90"		1.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3/4 HP Standard 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
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
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
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
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
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
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
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
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)							
	1.10"		1.20"		1.30"		1.40"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1.5 HP High Static Motor								
1600	1152	0.91	1191	0.99	1229	1.07	1264	1.14
1700	1170	0.98	1208	1.06	1246	1.14	1281	1.22
1800	1187	1.05	1226	1.13	1263	1.22	1300	1.30
1900	1207	1.13	1245	1.21	1281	1.30	1317	1.39
2000	1227	1.21	1265	1.30	1300	1.39	1335	1.48
2100	1250	1.31	1285	1.39	1319	1.48	—	—
2200	1274	1.42	1308	1.50	—	—	—	—
2300	1299	1.53	—	—	—	—	—	—
2400	—	—	—	—	—	—	—	—

Notes:
1. Data includes pressure drop due to wet coil and 1" filter.
2. Fan motor heat (MBh) = 3.15 x BHP.
3. Trane's 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.
4. For TWE061 Standard Motor use Table 51, p. 72, for High Static Motor use Table 52, p. 73.

Table 39. Evaporator Fan Performance —TWE090 — Standard Air Handler

	External Static Pressure (Inches of Water Gauge)																			
	.10"		.20"		.30"		.40"		.50"		.60"		.70"		.80"		.90"		1.00"	
CFM	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
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
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
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
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
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
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
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
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
															3 HP Ultra High Static Motor					

	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
	2 HP High Static Motor								3 HP Ultra High Static Motor											
2400	1023	1.62	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	1032	1.74	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	1040	1.86	1079	2.01	1117	2.17	1154	2.32	1189	2.47	1223	2.62	1255	2.77	1288	2.93	—	—	—	—
2850	1048	1.99	1087	2.14	1126	2.31	1161	2.47	1198	2.63	1232	2.79	1264	2.95	—	—	—	—	—	—
3000	1058	2.12	1096	2.29	1135	2.46	1171	2.63	1206	2.80	1239	2.96	—	—	—	—	—	—	—	—
3150	1069	2.27	1105	2.43	1142	2.60	1179	2.79	1214	2.96	—	—	—	—	—	—	—	—	—	—
3300	1082	2.45	1118	2.61	1154	2.78	1187	2.95	—	—	—	—	—	—	—	—	—	—	—	—
3450	1094	2.63	1130	2.79	1164	2.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3600	1107	2.84	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. Trane's 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.
4. For TWE090 Standard Motor use Table 51, p. 72, for High Static Motor use Table 52, p. 73, for Ultra High Static Motor use Table 53, p. 74.

Table 40. Evaporator Fan Performance —TWE120 — Standard Air Handler

	External Static Pressure (Inches of Water Gauge)																			
	.10"		.20"		.30"		.40"		.50"		.60"		.70"		.80"		.90"		1.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	2 HP Standard Motor																			
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
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
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
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
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
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
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
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	—	—	—	—	—	—

	3 HP Hi Static Motor External Static Pressure (Inches of Water Gauge)																			
	1.10"		1.20"		1.30"		1.40"		1.50"		1.60"		1.70"		1.80"		1.90		2.00	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	3 HP Hi Static Motor										3 HP High Static Motor w/ Field Supplied Sheave & Belt									
3200	839	1.58	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
3400	854	1.75	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
3600	871	1.96	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	887	2.18	912	2.28	937	2.38	961	2.48	985	2.58	1008	2.70	1030	2.81	1053	2.93	—	—	—	—
4000	905	2.40	930	2.52	953	2.62	977	2.73	1000	2.83	1022	2.94	—	—	—	—	—	—	—	—
4200	923	2.63	947	2.76	970	2.89	993	3.00	—	—	—	—	—	—	—	—	—	—	—	—
4400	942	2.88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

	External Static Pressure (Inches of Water Gauge)			
	2.10"		2.20"	
CFM	RPM	BHP	RPM	BHP
	3 HP High Static Motor w/ Field Supplied Sheave & Belt			
3200	1088	2.64	1109	2.75
3400	1098	2.86	1120	2.97
3600	—	—	—	—
3800	—	—	—	—
4000	—	—	—	—
4200	—	—	—	—
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. Trane's 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.
4. For TWE120 Standard Motor use Table 51, p. 72, for High Static Motors use Table 52, p. 73.

Table 41. Evaporator Fan Performance - TWE120****(4.) - 2-Speed VFD, SZVAV Air Handler

	.10			.20			.30			.40			.50			.60			.70			.80			.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														
3200							588	38	0.87	625	41	0.95	658	43	1.03	691	45	1.13	722	47	1.22	753	49	1.32	783	51	1.40	812	53	1.48
3400							611	40	1.01	646	42	1.09	679	44	1.18	711	47	1.27	742	49	1.38	771	50	1.48	799	52	1.57	828	44	1.67
3600				598	39	1.04	634	41	1.16	668	44	1.26	700	46	1.34	731	48	1.44	761	50	1.54	789	52	1.65	817	53	1.76	844	45	1.86
3800	588	38	1.17	624	41	1.24	658	43	1.29	691	45	1.43	722	47	1.53	752	49	1.62	781	51	1.72	809	53	1.83	835	44	1.95	862	46	2.07
4000	616	40	1.34	651	43	1.47	682	45	1.45	714	47	1.63	745	49	1.73	774	51	1.83	801	52	1.93	829	44	2.04	855	45	2.16	880	47	2.28
4200	643	42	1.52	677	44	1.70	706	46	1.65	738	48	1.81	767	50	1.95	795	42	2.05	823	44	2.15	849	45	2.26	874	46	2.38	899	48	2.50
4400	670	44	1.74	703	46	1.94	731	48	1.90	761	50	2.00	790	42	2.19	818	43	2.29	844	45	2.40	870	46	2.51	895	47	2.63	919	49	2.75
4600	698	46	1.97	729	39	2.19	756	40	2.20	785	42	2.21	814	43	2.44	840	44	2.56	866	46	2.67	891	47	2.78	915	48	2.90			
4800	726	38	2.23	755	40	2.46	785	42	2.53	809	43	2.47	837	44	2.65	863	46	2.85	889	47	2.96									

3 HP High Static Drive

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**
															3 HP High Static Drive														
3200	839	44	1.58	866	46	1.67	893	47	1.77	920	49	1.88	946	50	1.99	971	51	2.10	996	53	2.21	1019	54	2.32	1044	55	2.43	1066	56	2.54
3400	854	45	1.75	881	47	1.85	906	48	1.95	931	49	2.05	957	51	2.16	982	52	2.28	1007	53	2.40	1030	54	2.51	1054	56	2.63	1076	57	2.74
3600	871	46	1.96	896	47	2.05	922	49	2.15	946	50	2.25	970	51	2.36	993	53	2.47	1018	54	2.59	1042	55	2.72	1065	56	2.84	1087	58	2.96
3800	887	47	2.18	912	48	2.28	937	50	2.38	961	51	2.48	985	52	2.58	1008	53	2.70	1030	54	2.81	1053	56	2.93						
4000	905	48	2.40	930	49	2.52	953	50	2.62	977	52	2.73	1000	53	2.83	1022	54	2.94												
4200	923	49	2.63	947	50	2.76	970	51	2.89	993	53	3.00																		
4400	942	50	2.88																											
4600																														
4800																														

External Static Pressure (Inches of Water Gauge)

	2.10			2.20		
CFM	**RPM**	**HZ**	**BHP**	**RPM**	**HZ**	**BHP**
	3 HP High Static Drive					
3200	1088	58	2.64	1109	59	2.75
3400	1098	58	2.86	1120	59	2.97
3600						
3800						
4000						
4200						
4400						
4600						
4800						

Notes:

1. Gray area denotes disallowed for Single Zone VAV Static Pressure Control Point.
2. Hz data is Variable Frequency Drive frequency.
3. Single Zone VAV Static Pressure Control Point operation disallowed at less than 340 CFM/ton.
4. TWE120D303, TWE120D304, TWE120D3R3, TWE120D3R4, TWE120D403, TWE120D404, TWE120D4R3, TWE120D4R4, TWE120DW03, TWE120DW04, TWE120DWR3, TWE120DWR4, TWE120E303, TWE120E304, TWE120E3R3, TWE120E3R4, TWE120E403, TWE120E404, TWE120E4R3, TWE120E4R4, TWE120EW03, TWE120EW04, TWE120EWR3, TWE120EWR4

Table 42. Evaporator Fan Performance —TWE150 — Standard Air Handler

External Static Pressure (Inches of Water Gauge)																				
	.10"		.20"		.30"		.40"		.50"		.60"		.70"		.80"		.90"		1.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
							2 HP Standard Motor				2 HP Standard Motor w/ Field Supplied Sheave & Belt									
4000	—	—	—	—	—	—	614	0.85	658	0.98	698	1.12	728	1.22	756	1.32	786	1.43	817	1.56
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
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
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
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
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
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
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
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
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
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
									3 HP High Static Motor											

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
	2 HP Standard Motor w/ Field Supplied Sheave & Belt										3 HP High Static Motor									
4000	849	1.70	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
4200	858	1.80	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
4400	867	1.92	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
4600	880	2.05	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
4800	896	2.22	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
5000	911	2.39	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
5200	927	2.57	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
5400	943	2.76	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
5600	956	2.92	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
5800	969	3.09	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
6000	980	3.25	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
											5 HP Ultra High Static Motor									

External Static Pressure (Inches of Water Gauge)								
	2.10"		2.20"		2.30”		2.40”	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	5 HP Ultra High Static Motor							
4000	1126	3.38	1148	3.54	1170	3.73	1191	3.89
4200	1132	3.51	1155	3.69	1179	3.88	1200	4.06
4400	1141	3.66	1163	3.84	1186	4.03	1208	4.23
4600	1150	3.81	1172	4.00	1193	4.18	1215	4.37
4800	1157	3.96	1179	4.15	1202	4.36	—	—
5000	1161	4.09	1186	4.30	1210	4.52	—	—
5200	1164	4.21	1189	4.44	1214	4.66	—	—
5400	1170	4.38	1193	4.58	1218	4.81	—	—
5600	1176	4.55	1198	4.74	1222	4.97	—	—
5800	1184	4.74	1206	4.94	—	—	—	—
6000	1194	4.96	—	—	—	—	—	—

Notes:

1. Data includes pressure drop due to wet coil and 1" filter.
2. Fan motor heat (MBh) = 3.15 x BHP.
3. Trane’s 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.
4. For TWE150 Standard Motor use Table 51, p. 72, for High Static Motor use Table 52, p. 73, for Ultra High Static Motor (3 HP) use Table 53, p. 74.

Table 43. Evaporator Fan Performance - TWE150**** (4.) - 2-Speed VFD, SZVAV Air Handler**

	.10			.20			.30			.40			.50			.60			.70			.80			.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	2.27
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	2.58
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
5 HP High Static Drive																														
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

continued on next page

External Static Pressure (Inches of Water Gauge)

Table 43. (continued) Evaporator Fan Performance - TWE150**[4.] - 2-Speed VFD, SZVAV Air Handler**

	2.10			2.20			2.30			2.40		
CFM	**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. Gray area denotes disallowed for Single Zone VAV Static Pressure Control Point.
2. Hz data is Variable Frequency Drive frequency.
3. Single Zone VAV Static Pressure Control Point operation disallowed at less than 340 CFM/ton.
4. TWE150E303, TWE150E304, TWE150E3R3, TWE150E3R4, TWE150E403, TWE150E404, TWE150E4R3, TWE150E4R4, TWE150EW03, TWE150EW04, TWE150EWR3, TWE150EWR4

Table 44. Evaporator Fan Performance —TWE180 — Standard Air Handler

External Static Pressure (Inches of Water Gauge)																				
	.10"		.20"		.30"		.40"		.50"		.60"		.70"		.80"		.90"		1.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	3 HP Standard Motor w/ Field Supplied Sheave & Belt										3 HP Standard 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
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
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
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
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
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
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
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
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
									5 HP High Static Motor											

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 High Static Motor										5 HP High Static Motor w/ Field Supplied Sheave & Belt									
4800	869	2.30	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
5100	883	2.52	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
5400	897	2.75	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
5700	910	2.99	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
6000	924	3.25	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	939	3.52	967	3.73	995	3.95	1022	4.17	1046	4.37	1071	4.59	1095	4.79	1119	5.01	—	—	—	—
6600	954	3.81	981	4.02	1009	4.25	1035	4.48	1061	4.71	1085	4.93	—	—	—	—	—	—	—	—
6900	971	4.13	998	4.35	1022	4.57	1049	4.81	1074	5.04	—	—	—	—	—	—	—	—	—	—
7200	988	4.48	1014	4.70	1039	4.93	1063	5.15	—	—	—	—	—	—	—	—	—	—	—	—

External Static Pressure (Inches of Water Gauge)								
	2.10"		2.20"		2.30”		2.40”	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	5 HP High Static Motor w/ Field Supplied Sheave & Belt							
4800	1120	3.84	1141	3.99	1162	4.14	1183	4.30
5100	1132	4.17	1154	4.33	1175	4.49	1196	4.66
5400	1146	4.52	1167	4.69	1188	4.86	1209	5.04
5700	1159	4.87	1180	5.06	—	—	—	—
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. Trane’s 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.
4. For TWE180 Low Static Motor use Table 50, p. 71, for Standard Motor use Table 51, p. 72, for High Static Motor use Table 52, p. 73.

Table 45. Evaporator Fan Performance - TWE180****(4.) - 2-Speed VFD, SZVAV Air Handler

	.10			.20			.30			.40			.50			.60			.70			.80			.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**
															3 HP Standard Drive														
4800				539	38	0.94	583	41	1.08	624	44	1.21	663	47	1.34	701	49	1.49	738	52	1.66	774	54	1.82	807	57	1.98	839	59	2.14
5100				562	39	1.08	604	42	1.24	644	45	1.38	681	48	1.52	718	50	1.67	753	53	1.83	788	55	2.00	821	58	2.18	853	60	2.35
5400	542	38	1.11	585	41	1.25	625	44	1.41	663	47	1.57	700	49	1.71	735	52	1.86	769	54	2.02	802	56	2.20	835	59	2.38	866	44	2.57
5700	567	40	1.29	609	43	1.43	647	45	1.60	684	48	1.78	719	51	1.93	753	53	2.08	786	55	2.24	818	57	2.41	849	60	2.60	881	44	2.80
6000	593	42	1.48	632	44	1.64	669	47	1.80	705	50	1.99	739	52	2.16	773	54	2.32	804	56	2.48	835	59	2.66	865	44	2.84	895	45	3.04
6300	619	43	1.70	656	46	1.86	692	49	2.03	726	51	2.22	760	53	2.42	792	56	2.59	823	58	2.75	853	60	2.93	882	44	3.12	910	46	3.31
6600	644	45	1.94	681	48	2.11	715	50	2.28	748	53	2.48	781	55	2.69	811	57	2.87	841	59	3.04	871	44	3.22	899	45	3.40	927	47	3.60
6900	670	47	2.20	705	50	2.37	739	52	2.55	771	54	2.75	802	56	2.97	832	42	3.18	861	43	3.36	890	45	3.54	917	46	3.72	944	48	3.92
7200	696	49	2.49	730	51	2.66	763	54	2.85	794	56	3.05	824	42	3.27	853	43	3.49	881	44	3.70	909	46	3.89	936	47	4.08	963	49	4.28

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																		
4800	869	44	2.30	897	45	2.46	926	47	2.62	953	48	2.77	979	49	2.93	1004	51	3.08	1029	52	3.24	1051	53	3.38	1075	54	3.54	1097	55	3.69
5100	883	44	2.52	911	46	2.69	940	47	2.86	965	49	3.02	992	50	3.19	1017	51	3.36	1042	52	3.52	1065	54	3.68	1088	55	3.84	1111	56	4.02
5400	897	45	2.75	925	47	2.93	953	48	3.11	980	49	3.29	1005	51	3.47	1031	52	3.65	1055	53	3.82	1078	54	3.99	1102	56	4.17	1123	57	4.34
5700	910	46	2.99	940	47	3.19	966	49	3.38	993	50	3.57	1019	51	3.75	1044	53	3.94	1068	54	4.13	1092	55	4.32	1114	56	4.50	1137	57	4.69
6000	924	47	3.25	953	48	3.45	980	49	3.65	1008	51	3.86	1033	52	4.06	1057	53	4.26	1081	54	4.45	1105	56	4.66	1129	57	4.86	1150	58	5.05
6300	939	47	3.52	967	49	3.73	995	50	3.95	1022	51	4.17	1046	53	4.37	1071	54	4.59	1095	55	4.79	1119	56	5.01						
6600	954	48	3.81	981	49	4.02	1009	51	4.25	1035	52	4.48	1061	53	4.71	1085	55	4.93												
6900	971	49	4.13	998	50	4.35	1022	51	4.57	1049	53	4.81	1074	54	5.04															
7200	988	50	4.48	1014	51	4.70	1039	52	4.93	1063	54	5.15																		

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**
						5 HP High Static Drive						
4800	1120	56	3.84	1141	57	3.99	1162	59	4.14	1183	60	4.30
5100	1132	57	4.17	1154	58	4.33	1175	59	4.49	1196	60	4.66
5400	1146	58	4.52	1167	59	4.69	1188	60	4.86			
5700	1159	58	4.87	1180	59	5.06						
6000												
6300												
6600												
6900												
7200												

Notes:

1. Gray area denotes disallowed for Single Zone VAV Static Pressure Control Point.
2. Hz data is Variable Frequency Drive frequency.
3. Single Zone VAV Static Pressure Control Point operation disallowed at less than 340 CFM/ton.
4. TWE180E303, TWE180E304, TWE180E3R3, TWE180E3R4, TWE180E403, TWE180E404, TWE180E4R3, TWE180E4R4, TWE180EW03, TWE180EW04, TWE180EWR3, TWE180EWR4

Table 46. Evaporator Fan Performance — TWE240 — Standard Air Handler

	External Static Pressure (Inches of Water Gauge)																			
	.10"		.20"		.30"		.40"		.50"		.60"		.70"		.80"		.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
	7.5 HP Ultra Hi Static Motor												5 HP Hi Standard Motor w/ Field Supplied Sheaves							

	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 Standard Motor w/ Field Supplied Sheaves							
6400	934	2.95	965	3.16	996	3.37	1028	3.58	1059	3.81	1091	4.03	1120	4.25	1148	4.46	1177	4.69	1204	4.90
6800	948	3.22	979	3.45	1008	3.66	1039	3.89	1069	4.12	1099	4.35	1128	4.58	1156	4.81	1185	5.05	1212	5.28
7200	964	3.51	994	3.75	1024	3.99	1052	4.22	1079	4.45	1108	4.69	1136	4.93	1166	5.19	1193	5.43	1219	5.67
7600	982	3.85	1011	4.07	1039	4.31	1066	4.56	1095	4.82	1121	5.06	1148	5.31	1174	5.56	1202	5.82	1228	6.07
8000	1004	4.25	1029	4.45	1055	4.67	1082	4.92	1109	5.19	1136	5.46	1161	5.71	1186	5.97	1213	6.24	1236	6.48
8400	1027	4.70	1051	4.90	1075	5.10	1100	5.33	1125	5.58	1151	5.85	1177	6.14	1202	6.42	1225	6.68	1250	6.96
8800	1049	5.17	1074	5.39	1097	5.59	1120	5.81	1144	6.03	1168	6.30	1192	6.57	1216	6.85	1241	7.16	1264	7.44
9200	1071	5.68	1096	5.90	1120	6.13	1143	6.34	1164	6.56	1186	6.79	1209	7.05	1233	7.35	—	—	—	—
9600	1092	6.21	1117	6.45	1142	6.69	1166	6.93	1187	7.15	1208	7.38	—	—	—	—	—	—	—	—
	7.5 HP Ultra High Static Motor								7.5 HP Ultra High Static Motor w/ Field Supplied Fan Sheave & Belt											

	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. Trane’s 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.
4. For TWE240 Low Static Motor use Table 50, p. 71, for Standard Motor use Table 51, p. 72, for High Static Motors (5 HP and 7½ HP) use Table 52, p. 73.

Table 47. Evaporator Fan Performance - TWE240****(4.) - 2-Speed VFD, SZVAV Air Handler

	.10			.20			.30			.40			.50			.60			.70			.80			.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**
													5 HP Standard Drive																	
6400													732	39	1.86	769	41	2.02	802	42	2.17	833	44	2.33	867	46	2.53	901	47	2.75
6800										717	38	1.96	754	40	2.12	791	42	2.29	824	43	2.46	855	45	2.62	885	47	2.79	916	48	3.00
7200										742	39	2.24	778	41	2.42	812	43	2.59	846	45	2.77	878	46	2.95	906	48	3.11	934	49	3.29
7600							729	38	2.34	766	40	2.55	802	42	2.74	835	44	2.92	868	46	3.10	900	47	3.29	929	49	3.48	956	50	3.66
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	921	49	3.67	951	50	3.87	979	52	4.06
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	942	50	4.07	972	51	4.28	1000	53	4.49
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	965	51	4.52	994	52	4.73	1022	54	4.95
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	989	52	5.00	1016	46	5.21	1044	47	5.44
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

	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 Standard Drive																	
6400	934	49	2.95	965	51	3.16	996	52	3.37	1028	54	3.58	1059	56	3.81	1091	57	4.03												
6800	948	50	3.22	979	52	3.45	1008	53	3.66	1039	55	3.89	1069	56	4.12	1099	50	4.35												
7200	964	51	3.51	994	52	3.75	1024	54	3.99	1052	55	4.22	1079	57	4.45	1108	50	4.69												
7600	982	52	3.85	1011	53	4.07	1039	55	4.31	1066	56	4.56																		
8000	1004	53	4.25	1029	54	4.45	1055	56	4.67	1082	57	4.92																		
8400	1027	54	4.70	1051	55	4.90	1075	57	5.10																					
8800	1049	48	5.17	1074	49	5.39	1097	50	5.59																					
9200	1071	49	5.68	1096	50	5.90	1120	51	6.13																					
9600	1092	50	6.21	1117	51	6.45	1142	52	6.69																					

	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**
													7.5 HP Standard Drive																	
6400																			1120	51	4.25	1148	52	4.46	1177	53	4.69	1204	55	4.90
6800																			1128	51	4.58	1156	53	4.81	1185	54	5.05	1212	55	5.28
7200																			1136	52	4.93	1166	53	5.19	1193	54	5.43	1219	55	5.67
7600																			1148	52	5.31	1174	53	5.56	1202	55	5.82	1228	56	6.07
8000																			1161	53	5.71	1186	54	5.97	1213	55	6.24	1236	56	6.48
8400																			1177	53	6.14	1202	55	6.42	1225	56	6.68	1250	57	6.96
8800																			1192	54	6.57	1216	55	6.85	1241	56	7.16	1264	57	7.44
9200																			1209	55	7.05	1233	56	7.35						
9600																														

	2.10			2.20			2.30			2.40		
CFM	**RPM**	**HZ**	**BHP**	**RPM**	**HZ**	**BHP**	**RPM**	**HZ**	**BHP**	**RPM**	**HZ**	**BHP**
							7.5 HP Standard Drive					
6400	1230	56	5.11	1257	57	5.33	1282	58	5.54	1308	59	5.77
6800	1239	56	5.52	1265	57	5.75	1290	59	5.98	1315	60	6.20
7200	1246	57	5.92	1272	58	6.17	1298	59	6.41	1323	60	6.66
7600	1255	57	6.35	1282	58	6.61	1306	59	6.86			
8000	1262	57	6.76	1289	59	7.04	1313	60	7.31			
8400	1273	58	7.22									
8800												
9200												
9600												

Notes:
1. Gray area denotes disallowed for Single Zone VAV Static Pressure Control Point.
2. Hz data is Variable Frequency Drive frequency.
3. Single Zone VAV Static Pressure Control Point operation disallowed at less than 340 CFM/ton.
4. TWE240E303, TWE240E304, TWE240E3R3, TWE240E3R4, TWE240E403, TWE240E404, TWE240E4R3, TWE240E4R4, TWE240EW03, TWE240EW04, TWE240EWR3, TWE240EWR4

Table 48. Evaporator Fan Performance —TWE300 — Standard Air Handler

External Static Pressure (Inches of Water Gauge)																				
	.10"		.20"		.30"		.40"		.50"		.60"		.70"		.80"		.90"		1.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	7.5 HP Standard Motor & Low Static Drive Field Installed Sheaves												7.5 HP Standard Motor & Drive							
8000	—	—	—	—	702	2.23	734	2.42	765	2.60	796	2.80	826	3.02	852	3.16	877	3.29	904	3.49
8500	—	—	—	—	733	2.58	765	2.80	794	2.99	824	3.19	853	3.41	881	3.64	905	3.79	928	3.92
9000	—	—	730	2.74	764	2.98	796	3.21	825	3.43	852	3.63	879	3.85	908	4.09	933	4.33	956	4.49
9500	727	2.89	763	3.16	796	3.42	826	3.67	855	3.91	881	4.12	907	4.34	934	4.58	960	4.83	984	5.08
10000	761	3.34	796	3.62	828	3.90	857	4.17	886	4.42	912	4.67	936	4.88	961	5.12	986	5.37	1011	5.64
10500	796	3.83	829	4.14	860	4.43	889	4.71	916	4.98	942	5.25	966	5.49	990	5.72	1013	5.97	1038	6.25
11000	831	4.37	863	4.69	893	5.00	921	5.30	947	5.59	973	5.88	997	6.15	1019	6.39	1042	6.64	1064	6.90
11500	866	4.96	896	5.30	925	5.63	953	5.94	979	6.25	1004	6.55	1028	6.84	1050	7.11	1071	7.36	1093	7.63
12000	900	5.61	930	5.96	958	6.30	985	6.64	1010	6.96	1035	7.28	1058	7.59	1081	7.89	1101	8.16	1122	8.42
									7.5 HP Standard Motor & High Static Drive Field Installed Sheaves											

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
	7.5 HP Standard Motor & Drive								7.5 HP Standard Motor & High Static Drive Field Installed Sheaves											
8000	932	3.74	964	4.07	992	4.35	1016	4.58	1040	4.81	1063	5.03	1085	5.25	1106	5.47	1127	5.69	1148	5.91
8500	953	4.12	980	4.38	1008	4.69	1036	5.02	1062	5.31	1084	5.55	1106	5.78	1127	6.01	1149	6.25	1169	6.48
9000	977	4.61	1001	4.81	1025	5.05	1052	5.37	1079	5.73	1104	6.06	1128	6.34	1149	6.59	1170	6.85	1190	7.09
9500	1006	5.26	1026	5.39	1048	5.57	1070	5.80	1095	6.11	1121	6.47	1147	6.84	1171	7.20	1191	7.47	1212	7.74
10000	1034	5.91	1056	6.11	1075	6.25	1095	6.41	1116	6.65	1138	6.91	1162	7.26	1186	7.64	1211	8.05	1233	8.41
10500	1061	6.52	1083	6.81	1104	7.04	1122	7.18	1141	7.33	1161	7.55	1181	7.81	1203	8.13	1226	8.50	—	—
11000	1087	7.18	1110	7.48	1132	7.78	1152	8.04	1170	8.21	1187	8.35	1205	8.55	—	—	—	—	—	—
11500	1114	7.90	1136	8.21	1158	8.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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 Standard Motor & High Static Drive Field Installed Sheaves							
8000	1168	6.13	1188	6.35	1208	6.57	1226	6.78
8500	1189	6.71	1209	6.96	1228	7.19	1248	7.43
9000	1211	7.35	1230	7.59	1249	7.85	1268	8.10
9500	1231	8.00	1251	8.27	1270	8.53	—	—
10000	—	—	—	—	—	—	—	—
10500	—	—	—	—	—	—	—	—
11000	—	—	—	—	—	—	—	—
11500	—	—	—	—	—	—	—	—
12000	—	—	—	—	—	—	—	—

Notes:
1. Data includes pressure drop due to wet coil and 1" filter.
2. Fan motor heat (MBh) = 3.15 x BHP.
3. Trane's 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.
4. For TWE300 Standard Motor, use Table 50, p. 71, Table 51, p. 72 and Table 52, p. 73.

Table 49. Evaporator Fan Performance - TWE300****(4.) - 2-Speed VFD, SZVAV Air Handler

	.10			.20			.30			.40			.50			.60			.70			.80			.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**
7.5 HP Standard Motor & Drive																														
8000																			826	39	3.02	852	40	3.16	877	41	3.29	904	43	3.49
8500																824	39	3.19	853	40	3.41	881	42	3.64	905	43	3.79	928	44	3.92
9000													825	39	3.43	852	40	3.63	879	42	3.85	908	43	4.09	933	44	4.33	956	45	4.49
9500										826	39	3.67	855	40	3.91	881	42	4.12	907	43	4.34	934	44	4.58	960	45	4.83	984	47	5.08
10000							828	39	3.90	857	41	4.17	886	42	4.42	912	43	4.67	936	44	4.88	961	45	5.12	986	47	5.37	1011	48	5.64
10500				829	39	4.14	860	41	4.43	889	42	4.71	916	43	4.98	942	45	5.25	966	46	5.49	990	47	5.72	1013	48	5.97	1038	49	6.25
11000	831	39	4.37	863	41	4.69	893	42	5.00	921	44	5.30	947	45	5.59	973	46	5.88	997	47	6.15	1019	48	6.39	1042	49	6.64	1064	50	6.90
11500	866	41	4.96	896	42	5.30	925	44	5.63	953	45	5.94	979	46	6.25	1004	47	6.55	1028	49	6.84	1050	50	7.11	1071	51	7.36	1093	52	7.63
12000	900	43	5.61	930	44	5.96	958	45	6.30	985	47	6.64	1010	48	6.96	1035	49	7.28	1058	50	7.59	1081	51	7.89	1101	52	8.16	1122	53	8.42

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**
7.5 HP Standard Motor & Drive																														
8000	932	44	3.74	964	46	4.07	992	47	4.35	1016	48	4.58	1040	49	4.81	1063	50	5.03	1085	51	5.25	1106	52	5.47	1127	53	5.69	1148	54	5.91
8500	953	45	4.12	980	46	4.38	1008	48	4.69	1036	49	5.02	1062	50	5.31	1084	51	5.55	1106	52	5.78	1127	53	6.01	1149	54	6.25	1169	55	6.48
9000	977	46	4.61	1001	47	4.81	1025	48	5.05	1052	50	5.37	1079	51	5.73	1104	52	6.06	1128	53	6.34	1149	54	6.59	1170	55	6.85	1190	56	7.09
9500	1006	48	5.26	1026	49	5.39	1048	50	5.57	1070	51	5.80	1095	52	6.11	1121	53	6.47	1147	54	6.84	1171	55	7.20	1191	56	7.47	1212	57	7.74
10000	1034	49	5.91	1056	50	6.11	1075	51	6.25	1095	52	6.41	1116	53	6.65	1138	54	6.91	1162	55	7.26	1186	56	7.64	1211	57	8.05	1233	58	8.41
10500	1061	50	6.52	1083	51	6.81	1104	52	7.04	1122	53	7.18	1141	54	7.33	1161	55	7.55	1181	56	7.81	1203	57	8.13	1226	58	8.50			
11000	1087	51	7.18	1110	52	7.48	1132	54	7.78	1152	54	8.04	1170	55	8.21	1187	56	8.35	1205	57	8.55									
11500	1114	53	7.90	1136	54	8.21	1158	55	8.51																					
12000																														

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**
7.5 HP Standard Motor & Drive												
8000	1168	55	6.13	1188	56	6.35	1208	57	6.57	1226	58	6.78
8500	1189	56	6.71	1209	57	6.96	1228	58	7.19	1248	59	7.43
9000	1211	57	7.35	1230	58	7.59	1249	59	7.85	1268	60	8.10
9500	1231	58	8.00	1251	59	8.27						
10000												
10500												
11000												
11500												
12000												

Notes:

1. Gray area denotes disallowed for Single Zone VAV Static Pressure Control Point.
2. Hz data is Variable Frequency Drive frequency.
3. Single Zone VAV Static Pressure Control Point operation disallowed at less than 340 CFM/ton.
4. TWE300E303, TWE300E3R3, TWE300E403, TWE300E4R3, TWE300EW03, TWE300EWR3

Table 50. Low Static Fan Motors - Standard Air Handlers

15 Ton — TWE180 — Standard Motor with Field Supplied Sheave & Belt (3 HP)[a]	
Motor Sheave Turns Open	Nominal RPM
0	649
1	613
2	557
3	500
4	444
5	469

20 Ton — TWE240 Low Static Motor (3 HP)	
Motor Sheave Turns Open	Nominal RPM
0	855
1	812
2	769
3	726
4	683
5	640

25 Ton — TWE300 — Standard Motor (7½ HP)[b]	
Motor Sheave Turns Open	Nominal RPM
1	929
2	884
3	839
4	793
5	748
6	703

(a)TWE180 3HP Standard motor w/ field installed belt and sheaves
Field Supplied Components Required:
Motor Sheave: Variable Pitch (2.4 - 3.4 Inch Pitch Diameter), 0.875 Inch Bore, Single Groove, Browning 1VL40
Blower Sheave: Fixed Pitch (9.5 Inch Pitch Diameter), 1.4375 Inch Bore, Single Groove, Browning AX59

(b) **TWE300 7½ HP Standard motor w/ field installed belt and sheaves**
Field Supplied Components Required:
Motor Sheave: (3.1 - 4.1 Inch Pitch Diameter), 1.125 Inch Bore, Single Groove, Browning 1VL44
Blower Sheave: Fixed Pitch (15.4 Inch Pitch Diameter), 1.4375 Inch Bore, Single Groove, Browning BK160
Belt: Browning BX70

Table 51. Standard Fan Motors - Standard Air Handlers

5 Ton — TWE061 — Standard Motor (3/4 HP)	
Motor Sheave Turns Open	Nominal RPM
0	1071
1	1000
2	928
3	857
4	785
5	714

7½ Ton — TWE090 — Standard Motor (1.5 HP)	
Motor Sheave Turns Open	Nominal RPM
0	847
1	791
2	734
3	678
4	621
5	565

10 Ton — TWE120 — Standard Motor (2 HP)	
Motor Sheave Turns Open	Nominal RPM
0	818
1	773
2	727
3	682
4	636
5	591

12½ Ton — TWE150 — Standard Motor (2 HP)	
Motor Sheave Turns Open	Nominal RPM
0	768
1	725
2	683
3	640
4	598
5	555

15 Ton — TWE180 — Standard Motor (3 HP)	
Motor Sheave Turns Open	Nominal RPM
0	845
1	812
2	728
3	745
4	711
5	678
6	644

20 Ton — TWE240 — Standard Motor (5 HP)	
Motor Sheave Turns Open	Nominal RPM
0	966
1	932
2	899
3	865
4	831
5	798
6	764

25 Ton — TWE300 — Standard Motor (7½ HP)	
Motor Sheave Turns Open	Nominal RPM
1	1068
2	1016
3	964
4	912
5	859
6	807

Table 52. High Static Fan Motors - Standard Air Handlers

5 Ton — TWE061 — High Static Motor (1½ HP)	
Motor Sheave Turns Open	Nominal RPM
0	1346
1	1279
2	1212
3	1144
4	1077
5	1010

7½ Ton — TWE090 — High Static Motor (2 HP)	
Motor Sheave Turns Open	Nominal RPM
0	1094
1	1039
2	984
3	930
4	875
5	820

10 Ton — TWE120 High Static Motor (3 HP)	
Motor Sheave Turns Open	Nominal RPM
0	972
1	923
2	875
3	826
4	778
5	729

10 Ton — TWE120 — High Static Motor with Field Supplied Sheave & Belt (3 HP)[a]	
Motor Sheave Turns Open	Nominal RPM
0	1129
1	1073
2	1016
3	960
4	903
5	847

12½ Ton — TWE150 High Static Motor (3 HP)	
Motor Sheave Turns Open	Nominal RPM
0	913
1	862
2	806
3	749
4	693
5	659

12½ Ton — TWE150 — High Static Motor with Field Supplied Sheave & Belt (2 HP)[b]	
Motor Sheave Turns Open	Nominal RPM
0	1094
1	1039
2	991
3	942
4	893
5	820

15 Ton — TWE180 High Static Motor (5 HP)	
Motor Sheave Turns Open	Nominal RPM
0	1024
1	989
2	953
3	918
4	882
5	847
6	811

15 Ton — TWE180 — High Static Motor with Field Supplied Sheave & Belt (5 HP)[c]	
Motor Sheave Turns Open	Nominal RPM
0	1217
1	1175
2	1118
3	1062
4	1006
5	964
6	964

20 Ton — TWE240 — Standard Motor with Field Supplied Sheave & Belt (5 HP)[d]	
Motor Sheave Turns Open	Nominal RPM
0	1091
1	1053
2	1015
3	978
4	940
5	902
6	864

25 Ton — TWE300 — Standard Drive with Field Supplied Sheave & Belt (7½ HP)[e]	
Motor Sheave Turns Open	Nominal RPM
0	N/A
1	1313
2	1249
3	1185
4	1121
5	1057
6	993

See next page for notes on required field supplied components

(a) **TWE120 3 HP Hi-Static motor w/ field installed belt and sheaves**
Field Supplied Components Required:
Motor Sheave: Variable Pitch (2.8 - 3.8 Inch Pitch Diameter), 0.875 Inch Bore, Single Groove, Browning 1VP44
Blower Sheave: Fixed Pitch (6.0 Inch Pitch Diameter), 1.0 Inch Bore, Single Groove, Browning AK64
Belt: Browning A50

(b)TWE150 2 HP Hi-Static motor w/ field installed belt and sheaves
Field Supplied Components Required:
Motor Sheave: Variable Pitch (2.4 - 3.4 Inch Pitch Diameter), 0.875 Inch Bore, Single Groove, Browning 1VL40
Blower Sheave: Fixed Pitch (6.7 Inch Pitch Diameter), 1.4375 Inch Bore, Single Groove, Browning AK71
Belt: Browning A55

(c)TWE180 5 HP Hi-Static motor w/ field installed belt and sheaves
Field Supplied Components Required:
Motor Sheave: Variable Pitch (3.4 - 4.4 Inch Pitch Diameter), 1.125 Inch Bore, Single Groove, Browning 1VP50
Blower Sheave: Fixed Pitch (6.6 Inch Pitch Diameter), 1.4375 Inch Bore, Single Groove, Browning BK72
Belt: Browning BX58

(d) **TWE240 5 HP Standard motor w/ field installed belt and sheaves**
Field Supplied Components Required:
Motor Sheave: Variable Pitch (3.4 - 4.4 Inch Pitch Diameter), 1.125 Inch Bore, Single Groove, Browning 1VP50
Blower Sheave: Fixed Pitch (7.4 Inch Pitch Diameter), 1.4375 Inch Bore, Single Groove, Browning BK115
Belt: Browning BX57

(e) **TWE300 7½ HP Standard motor w/ field installed belt and sheaves**
Field Supplied Components Required:
Motor Sheave: Variable Pitch (3.1 - 4.1 Inch Pitch Diameter), 1.125 Inch Bore, Single Groove, Browning 1VP50
Blower Sheave: Fixed Pitch (10.9 Inch Pitch Diameter), 1.4375 Inch Bore, Single Groove, Browning BK115
Belt: Browning BX63

Table 53. Ultra High Static Fan Motors - Standard Air Handlers

7½ Ton — TWE090 Ultra High Static Motor (3 HP)	
Motor Sheave Turns Open	Nominal RPM
0	1346
1	1241
2	1136
3	1030
4	925
5	820
—	—

12½ Ton — TWE150 Ultra High Static Motor (5 HP)	
Motor Sheave Turns Open	Nominal RPM
0	1217
1	1175
2	1133
3	1091
4	1048
5	1006
6	964

20 Ton — TWE240 — Ultra High Static Motor (7.5 HP)	
Motor Sheave Turns Open	Nominal RPM
0	1294
1	1243
2	1191
3	1140
4	1089
5	1037
6	986

20 Ton — TWE240 — Ultra High Static Motor with Field Supplied Sheave & Belt (7.5 HP)[a]	
Motor Sheave Turns Open	Nominal RPM
0	1315
1	1281
2	1243
3	1205
4	1168
5	1100
6	1111

(a)TWE240 7½ HP Ultra Hi-Static motor w/ field installed belt and sheaves
Field Supplied Components Required:
Motor Sheave: Variable Pitch (2.8 - 3.8 Inch Pitch Diameter), 1.125 Inch Bore, Single Groove, Browning 1VP44
Blower Sheave: Fixed Pitch (10.4 Inch Pitch Diameter), 1.4375 Inch Bore, Single Groove, Browning BK110
Belt: Browning BX62

Table 54. Discharge Plenum and Grille Assembly Throw Distance (ft) — Standard/SZVAV/2Speed VFD Air Handler

Tons	Model No.	CFM	Louver Angle Deflection Position			
			Straight	20°	40°	55°
5	TWE061D TWE061E	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
7½	TWE090D TWE090E	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	TWE120D TWE120E	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
12½	TWE150E	4900	47	38	32	25
		5400	52	44	37	29
		6000	57	49	41	32
		6600	61	53	43	34
		7200	65	57	46	35
15	TWE180E	4900	47	38	32	25
		5400	52	44	37	29
		6000	57	49	41	32
		6600	61	53	43	34
		7200	65	57	46	35
20	TWE240E	6400	56	46	38	30
		7200	62	51	42	33
		8000	66	57	47	35
		8800	71	62	52	38
		9600	76	67	56	42
25	TWE300E	8000	66	57	47	35
		9000	72	63	53	39
		10000	78	70	59	43
		11000	84	76	65	46
		12000	90	83	71	50

Notes:
1. Assumes incompressible and adiabatic flow through grille.
2. Throw distance values are based on a terminal velocity of 75 FPM.
3. Throw distance values at other terminal velocities may be established by multiplying throw distances in the table above by throw factor.
4. SZVAV/2-Speed VFD available for 10-25 ton only.

Terminal Velocity	Throw Factor
50 FPM	x 1.50
100 FPM	x .75
150 FPM	x .50

Table 55. Electric Heat Discharge Plenum and Grille Airflow (CFM) - Standard/SZVAV/2-Speed VFD[a] Air Handler

Tons	Unit Model No.	Electric Heater Model No.	Airflow (CFM)	
			Minimum	Maximum
5	TWE061D1, E1 TWE061D3, E3 TWE061D4, E4	BAYHTRL117A	2000	2400
		BAYHTRL315A	2000	2400
		BAYHTRL415A	2000	2400
7½	TWE090D1, E1 TWE090D3, E3 TWE090D3, E3[b]	BAYHTRL117A	3000	3600
		BAYHTRL123A	3375	3600
		BAYHTRL315A	2625	3600
		BAYHTRL325A	3000	3600
		BAYHTRL415A	2625	3600
		BAYHTRL425A	2625	3600
10	TWE120D1, E1 TWE120D3, E3 TWE120D3, E3[b] TWE120D4, E4	BAYHTRL117A	3500	4800
		BAYHTRL123A	4000	4800
		BAYHTRL315A	4000	4800
		BAYHTRL325A	3500	4800
		BAYHTRL415A	3500	4800
		BAYHTRL425A	3500	4800
12½	TWE150E3 TWE150E3[b], TWE150E4	BAYHTRM330A	5250	6000
		BAYHTRM430A	5250	6000
15	TWE180E3 TWE180E3[b], TWE180E4	BAYHTRM330A	5250	7200
		BAYHTRM430A	5250	7200
20	TWE240E3 TWE240E4	BAYHTRM330A	7000	9600
		BAYHTRM430A	7000	9600
25	TWE300E3 TWE300E4	BAYHTRM330A	8750	12000
		BAYHTRM430A	8750	12000

(a) SZVAV/2-Speed VFD available for 10-25 ton only.
(b) Standard Air Handler wired for 460 volt, use with BAYHTR*4** only. See "Electric Heaters," p. 16.

Table 56. Static Pressure Drop Through Accessories (inches of water column)[a] — Standard/SZVAV/2-Speed VFD[b] Air Handler

Tons	Unit Model No.	CFM	Return Grille	Discharge Plenum and Grille[c]	Electric Heaters (kW)				Hydronic Coils	
					5-10	15-20	25-30	35-50	Steam	Hot Water
5	TWE061D TWE061E	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
7½	TWE090D TWE090E	2400	0.08	0.27	0.03	0.06	0.08	0.12	0.38	0.23
		3000	0.13	0.4	0.06	0.12	0.17	0.23	0.50	0.33
		3600	0.18	0.58	0.08	0.16	0.24	0.32	0.66	0.44
10	TWE120D TWE120E	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
12½	TWE150E	4000	0.06	0.16	0.02	0.02	0.04	0.08	0.28	0.24
		5000	0.10	0.25	0.03	0.03	0.08	0.12	0.44	0.38
		6000	0.14	0.36	0.04	0.05	0.12	0.17	0.64	0.54
15	TWE180E	4800	0.09	0.23	0.03	0.03	0.06	0.08	0.46	0.38
		6000	0.15	0.34	0.06	0.06	0.12	0.17	0.64	0.54
		7200	0.2	0.49	0.08	0.08	0.16	0.24	0.82	0.72

Table 56. Static Pressure Drop Through Accessories (inches of water column)[a] — Standard/SZVAV/2-Speed VFD[b] Air Handler

Tons	Unit Model No.	CFM	Return Grille	Discharge Plenum and Grille[c]	Electric Heaters (kW)				Hydronic Coils	
					5-10	15-20	25-30	35-50	Steam	Hot Water
20	TWE240E	6400	0.11	0.43	0.06	0.06	0.13	0.19	0.50	0.41
		8000	0.17	0.66	0.10	0.10	0.20	0.30	0.70	0.58
		9600	0.23	0.95	0.14	0.14	0.28	0.42	0.89	0.78
25	TWE300E	8000	0.17	0.66	0.10	0.10	0.20	0.30	0.70	0.58
		10000	0.25	1.03	0.15	0.15	0.30	0.45	0.94	0.83
		12000	0.32	1.49	0.20	0.20	0.42	0.62	1.16	1.14

(a) Return air filter ESP included in Fan Performance Table data.
(b) SZVAV/2-Speed VFD available for 10-25 ton only.
(c) At louver opening angle of 42 degrees. For ESP at other angle openings, see accessory installation instructions.

Table 57. Auxiliary Electric Heat Capacity - Standard/SZVAV/2-Speed[a] 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
TWE061D3, TWE061D4, TWE061DW, TWE061E3, TWE061E4	5.00	1	5.00	17,065	-	-	5.00	17,065
	9.96	1	9.96	33,993	-	-	9.96	33,993
	14.96	1	14.96	51,058	-	-	14.96	51,058
	24.92	2	14.96	51,058	9.96	33,993	24.92	85,051
TWE090D3[b],TWE120D3[b], TWE120DW, TWE090E3[b], TWE120D4, TWE120E4, TWE120E3[b], TWE120EW	5.00	1	5.00	17,065	-	-	5.00	17,065
	9.96	1	9.96	33,993	-	-	9.96	33,993
	14.96	1	14.96	51,058	-	-	14.96	51,058
	24.92	2	14.96	51,058	9.96	33,993	24.92	85,051
TWE061D1,TWE090D1, TWE120D1, TWE061E1, TWE090E1, TWE120E1	5.76	1	5.76	19,659	-	-	5.76	19,659
	11.52	1	11.52	39,318	-	-	11.52	39,318
	17.28	1	17.28	58,977	-	-	17.28	58,977
	23.04	2	11.52	39,318	11.52	39,318	23.04	78,636
TWE090D1,TWE120D1, TWE090D3[b], TWE120E1, TWE120D3[b], TWE120D4, TWE120DW, TWE120E3[b], TWE120E4, TWE120EW	28.8	2	17.28	58,977	11.52	39,318	28.8	98,295
	34.88	2	19.92	67,987	14.96	51,058	34.88	119,045
	10.00	1	10.00	34,130	-	-	10.00	34,130
TWE150E, TWE180E, TWE240E, TWE300E	10.00	1	10.00	34,130	-	-	10.00	34,130
	19.92	1	19.92	67,987	-	-	19.92	67,987
	29.92	2	19.92	67,987	10.00	34,130	29.92	102,117
	49.84	2	29.92	102,117	19.92	67,987	49.84	170,104

Note: Heaters are rated at 240V, 480V and 600V. For other than rated voltage capacity = (Voltage/Related Voltage)^2 x Rated Capacity.

(a) SZVAV/2-Speed VFD available for 10-25 ton only.
(b) Standard Air Handler field converted to 460V.

Table 58. Steam Heating Coil Capacity - Standard/SZVAV/2-Speed VFD[a] 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[b]	MBh[c]	Cond. lb/hr[d]	LAT[b]	MBh[c]	Cond. lb/hr[d]	LAT[b]	MBh[c]	Cond. lb/hr[d]	LAT[b]	MBh[c]	Cond. lb/hr[d]	LAT[b]	MBh[c]	Cond. lb/hr[d]
TWE061D TWE061E	1600	40	97	99	103	100	104	108	104	111	117	108	117	124	113	127	136
		60	111	88	91	114	93	97	118	100	105	121	106	112	127	116	124
		80	125	77	80	127	82	85	131	89	94	135	95	101	140	105	112
	2000	40	90	108	112	93	114	118	96	122	128	99	129	136	104	139	149
		60	104	96	100	107	102	106	111	110	115	114	116	123	119	127	136
		80	119	84	87	121	90	93	125	98	102	128	104	110	133	115	123
	2400	40	85	116	120	87	123	127	90	131	137	93	138	146	98	150	160
		60	100	104	107	102	110	114	105	118	124	108	125	132	113	137	146
		80	115	91	94	117	97	100	120	105	110	123	112	118	127	123	132
TWE090D TWE090E	2400	40	102	162	168	106	171	177	110	182	191	114	192	203	120	208	222
		60	115	144	149	119	152	158	123	164	172	127	174	184	133	190	203
		80	129	126	130	132	134	140	136	146	153	140	155	164	146	171	183
	3000	40	95	178	183	97	187	194	101	200	209	105	210	222	110	228	244
		60	109	158	163	111	167	174	115	180	188	119	190	201	124	208	222
		80	122	138	143	125	147	153	129	160	168	132	170	180	138	188	201
	3600	40	89	191	197	91	201	208	95	215	225	97	226	239	103	245	262
		60	103	170	175	106	180	187	110	193	203	112	205	216	117	224	239
		80	118	149	154	121	158	164	124	172	180	127	183	194	132	202	216
TWE120D TWE120E	3200	40	99	203	210	102	214	222	106	229	240	109	241	254	115	261	279
		60	112	181	187	115	191	199	119	206	216	123	218	230	129	238	255
		80	126	158	164	129	169	175	133	183	192	136	195	206	142	215	230
	4000	40	91	222	229	94	234	243	98	250	262	101	264	278	106	286	306
		60	106	198	204	108	209	217	112	225	236	115	239	252	120	261	279
		80	120	173	179	123	184	192	126	200	210	129	214	226	134	236	252
	4800	40	86	239	246	88	251	261	92	269	282	94	284	299	99	307	329
		60	101	212	219	103	225	233	107	242	254	109	257	271	114	280	300
		80	116	186	192	118	198	206	121	215	226	124	230	243	129	253	271
TWE150E	4000	40	103	274	283	106	288	299	111	308	323	115	325	343	121	352	376
		60	116	244	252	119	258	268	124	277	291	128	294	310	134	321	343
		80	129	213	220	132	227	236	137	247	259	141	263	278	147	290	310
	5000	40	95	300	309	98	316	328	102	337	354	106	356	346	111	286	412
		60	109	267	275	112	282	293	116	304	318	119	322	340	125	352	376
		80	123	234	241	126	249	259	130	270	283	133	288	305	139	318	340
	6000	40	90	322	332	92	339	352	96	363	380	99	383	404	104	415	444
		60	104	287	296	107	303	315	110	327	342	113	347	366	118	379	405
		80	119	251	259	121	268	278	125	291	305	128	310	328	133	342	366

Continued on next page

Table 58. (continued) Steam Heating Coil Capacity - Standard/SZVAV/2-Speed VFD[a] Air Handlers Steam Pressure

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

Notes: Type NS Coil, 1 Row, 1" OD, SF Fins, 132 Fins per Foot.

(a) SZVAV/2-Speed VFD available for 10-25 ton only.
(b) LAT - Leaving Air Temperature (°F)
(c) MBh Capacity: BTU/HR/1000
(d) Cond. Lb/Hr - Condensate pound per hour

Table 59. Hot Water Heating Coil Capacity - Standard/SZVAV/2-Speed VFD[a] Air Handler

Tons	Unit Model No.	Airflow (CFM)	Entering Air Temp. (°F)	Entering Water Temperature (°F) 180								
				Water Temperature Drop (°F)								
				20.0			30.0			40.0		
				GPM[b]	MBh[c]	LAT[d]	GPM[b]	MBh[c]	LAT[d]	GPM[b]	MBh[c]	LAT[d]
5	TWE061D, TWE061E	1600	40	10.9	106.1	101.0	6.6	96.5	96.0	4.5	87.4	90.0
			60	9.0	88.3	111.0	5.4	79.1	106.0	3.6	70.3	100.0
			80	7.2	70.6	121.0	4.2	61.8	116.0	2.7	53.4	111.0
		2000	40	12.3	119.8	95.0	7.4	108.6	90.0	5.0	97.9	851.0
			60	10.2	99.6	106.0	6.1	88.8	101.0	4.0	78.6	96.0
			80	8.1	79.5	117.0	4.7	69.2	112.0	3.0	59.6	107.0
		2400	40	13.5	132.0	91.0	8.1	119.2	86.0	5.5	107.1	811.0
			60	11.2	109.6	102.0	6.6	97.4	97.0	4.4	85.9	931.0
			80	9.0	87.4	114.0	5.2	75.7	109.0	3.3	64.9	105.0
7½	TWE090D, TWE090E	2400	40	17.0	165.9	104.0	10.4	152.3	98.0	7.1	139.2	93.0
			60	14.2	138.4	113.0	8.5	125.2	108.0	5.7	112.5	103.0
			80	11.4	111.1	123.0	6.7	98.3	118.0	4.4	86.1	113.0
		3000	40	19.3	187.9	98	11.7	171.9	93	8.0	156.5	88
			60	16.1	156.7	108.0	9.6	141.1	103.0	6.4	126.3	991.0
			80	12.9	125.5	119.0	7.5	110.6	114.0	4.9	96.5	110.0
		3600	40	21.2	207.3	93.0	12.9	189.1	88.0	8.8	171.6	84.0
			60	17.7	172.7	104.0	10.6	155.0	100.0	7.1	138.3	95.0
			80	14.2	138.2	115.0	8.3	121.2	111.0	5.4	105.4	107.0
10	TWE120D, TWE120E	3200	40	24.5	239.1	109.0	14.3	210.0	100.0	9.1	178.7	91.0
			60	20.2	197.3	117.0	11.5	168.4	108.0	6.9	134.8	99.0
			80	15.9	155.6	125.0	8.6	126.1	116.0	4.0	78.7	103.0
		4000	40	27.8	271.7	103.0	16.2	237.5	95.0	10.3	201.9	86.0
			60	22.9	223.8	112.0	13.0	190.3	104.0	7.8	153.3	95.0
			80	18.1	176.2	121.0	9.7	142.6	113.0	5.0	97.3	102.0
		4800	40	30.7	300.0	98.0	17.8	261.3	90.0	11.3	221.7	82.0
			60	25.3	246.9	107.0	14.3	209.1	100.0	8.6	168.9	92.0
			80	19.9	194.0	117.0	10.7	156.7	110.0	5.6	110.2	101.0
12½	TWE150E	4000	40	31.7	318.0	113.3	19.2	287.7	106.3	12.8	256.5	99.1
			60	26.4	264.4	120.9	15.6	234.4	114.0	10.2	203.2	106.9
			80	21.1	210.9	128.6	12.1	181.1	121.7	7.4	148.9	114.3
		5000	40	36.0	360.6	106.5	21.7	325.2	100.0	14.4	288.8	93.3
			60	29.9	299.6	115.3	17.6	264.5	108.8	11.4	228.3	102.1
			80	23.8	238.7	124.0	13.6	203.8	117.6	8.4	167.5	110.9
		6000	40	39.7	397.0	101.0	23.8	357.0	94.9	15.8	316.1	88.6
			60	32.9	329.6	110.7	19.3	290.0	104.6	12.5	249.5	98.3
			80	26.2	262.3	120.3	14.9	223.1	114.3	9.1	182.8	108.1

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Table 59. Hot Water Heating Coil Capacity - Standard/SZVAV/2-Speed VFD[a] Air Handler (continued)

Tons	Unit Model No.	Airflow (CFM)	Entering Air Temp. (°F)	Entering Water Temperature (°F) 180								
				Water Temperature Drop (°F)								
				20.0			30.0			40.0		
				GPM[b]	MBh[c]	LAT[d]	GPM[b]	MBh[c]	LAT[d]	GPM[b]	MBh[c]	LAT[d]
15	TWE180E	4800	40	35.2	343.9	106.0	21.2	310.3	100.0	14.1	276.3	93.0
			60	29.3	285.7	115	17.2	252.7	108.0	11.2	218.5	102.0
			80	23.3	227.7	124.0	13.3	195.0	117.0	8.2	159.9	111.0
		6000	40	40.0	390.3	100.0	23.9	350.8	94.0	15.9	311.4	884.0
			60	33.3	323.9	110.0	19.5	285.3	104.0	12.6	246.2	98.0
			80	26.4	257.7	120.0	15.0	219.9	114.0	9.2	180.5	108.0
		7200	40	44.2	431.3	95.0	26.4	386.5	89.0	17.5	342.1	84.0
			60	36.6	357.6	106.0	21.4	313.9	100.0	13.8	270.6	95.0
			80	29.1	284.2	116.0	16.5	241.6	111.0	10.1	198.3	105.0
20	TWE240E	6400	40	46.8	456.2	106.0	28.4	416.5	100.0	19.3	376.7	94.0
			60	39.0	380.2	115.0	23.3	341.2	109.0	15.4	301.7	103.0
			80	31.2	304.5	124.0	18.2	266.0	118.0	11.6	227.0	113.0
		8000	40	53.0	517.5	100.0	32.1	470.9	94.0	21.7	424.5	89.0
			60	44.2	430.9	110.0	26.3	385.2	104.0	17.4	339.6	99.0
			80	35.3	344.6	120.0	20.5	299.8	115.0	13.0	255.2	109.0
		9600	40	58.6	572.0	94.0	35.4	519.1	90.0	23.9	466.8	85.0
			60	48.8	475.9	106.0	28.9	424.2	101.0	19.1	373.3	96.0
			80	39.0	380.2	116.0	22.5	329.6	112.0	14.3	280.0	107.0
25	TWE300E	8000	40	52.0	520.2	100.0	31.6	474.4	94.7	21.4	427.6	89.3
			60	43.3	433.6	110.0	25.9	388.2	104.7	17.1	341.6	99.4
			80	34.7	347.0	120.0	20.1	301.9	114.8	12.8	255.3	109.4
		10000	40	57.9	579.4	93.4	35.1	526.9	88.6	23.7	473.6	83.7
			60	48.2	482.5	104.5	28.7	430.6	99.7	18.9	377.7	94.8
			80	38.5	385.7	115.6	22.3	334.3	110.8	14.1	281.6	106.0
		12000	40	62.8	628.6	88.3	38.0	570.5	83.8	25.6	511.7	79.3
			60	52.3	523.2	100.2	31.0	465.8	95.8	20.4	407.5	91.3
			80	41.7	417.9	112.2	24.1	361.2	107.8	15.2	303.3	103.3

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Table 59. Hot Water Heating Coil Capacity - Standard/SZVAV/2-Speed VFD[a] Air Handler (continued)

Tons	Unit Model No.	Airflow (CFM)	Entering Air Temp. (°F)	Entering Water Temperature (°F) 200.0								
				Water Temperature Drop (°F)								
				20.0			30.0			40.0		
				GPM[b]	MBh[c]	LAT[d]	GPM[b]	MBh[c]	LAT[d]	GPM[b]	MBh[c]	LAT[d]
5	TWE061D, TWE061E	1600	40	12.9	124.9	112.0	7.9	115.4	106.0	5.5	106.3	101.0
			60	11.0	107.0	122.0	6.7	97.8	116.0	4.6	88.9	111.0
			80	9.2	89.1	131.0	5.5	80.2	126.0	3.7	71.7	121.0
		2000	40	4.5	141.3	105.0	8.9	130.1	100.0	6.1	119.4	95.0
			60	12.4	120.9	116.0	7.5	110.1	111.0	5.1	99.7	106.0
			80	10.4	100.6	126.0	6.2	90.2	122.0	4.1	80.3	117.0
		2400	40	6.0	155.8	100.0	9.8	143.1	95.0	6.7	131.0	90.0
			60	3.7	133.3	111.0	8.3	120.9	106.0	5.6	109.2	102.0
			80	11.4	110.8	123.0	6.8	98.9	118.0	4.5	87.8	114.0
7½	TWE090D, TWE090E	2400	40	20.0	194.8	115.0	12.4	181.2	110.0	8.6	168.2	105.0
			60	17.2	167.1	124.0	10.6	153.9	119.0	7.2	141.2	114.0
			80	14.4	139.6	134.0	8.7	126.8	129.0	5.9	114.3	124.0
		3000	40	22.7	220.9	108	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	981.0	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	TWE120D, TWE120E	3200	40	29.3	284.7	122.0	17.6	256.8	114.0	11.7	228.6	106.0
			60	25.0	242.6	130.0	14.7	215.2	122.0	9.6	186.9	114.0
			80	20.6	200.6	138.0	11.9	173.6	130.0	7.4	144.3	122.0
		4000	40	33.4	324.1	115.0	19.9	291.0	107.0	13.3	258.2	99.0
			60	28.4	275.8	124.0	16.7	243.6	116.0	10.8	211.0	109.0
			80	23.4	227.7	132.0	13.4	196.2	125.0	8.4	163.2	118.0
		4800	40	36.9	358.3	109.0	22.0	320.7	102.0	14.6	283.7	94.0
			60	31.4	304.7	118.0	18.4	268.1	111.0	11.9	231.6	104.0
			80	25.9	251.3	128.0	14.8	215.6	121.0	9.2	179.4	114.0
12½	TWE150E	4000	40	37.3	374.5	126.3	23.0	345.9	119.7	15.8	316.5	113.0
			60	32.0	320.9	134.0	19.4	292.5	127.4	13.1	263.1	120.7
			80	26.6	267.4	141.6	15.9	293.1	135.1	10.5	209.7	128.3
		5000	40	42.4	425.4	118.5	26.0	391.7	112.2	17.8	357.2	105.9
			60	36.3	364.3	127.2	22.0	330.8	121.0	14.8	296.5	114.7
			80	30.2	303.2	135.9	17.9	269.9	129.8	11.8	235.8	123.5
		6000	40	46.7	468.8	112.0	28.6	430.6	106.2	19.5	391.7	100.2
			60	40.0	401.2	121.7	24.2	363.3	115.8	16.2	324.8	109.9
			80	33.2	333.6	131.3	19.7	296.1	125.5	12.9	257.8	119.6

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Table 59. Hot Water Heating Coil Capacity - Standard/SZVAV/2-Speed VFD[a] Air Handler (continued)

15	TWE180E	4800	40	41.8	406.0	118.0	25.6	373.4	112.0	17.5	341.0	105.0
			60	35.8	347.5	127.0	21.6	315.4	121.0	14.6	283.4	114.0
			80	29.8	289.1	135.0	17.7	257.6	129.0	11.6	225.7	123.0
		6000	40	7.5	461.4	111.0	29.0	423.0	105.0	19.8	385.0	99.0
			60	40.6	394.6	121.0	24.5	356.9	115.0	16.4	319.6	109.0
			80	33.8	327.9	130.0	19.9	291.0	125.0	13.1	254.3	119.0
		7200	40	52.5	510.4	105.0	32.0	466.7	100.0	21.8	423.8	94.0
			60	44.9	436.3	116.0	27.0	393.5	110.0	18.0	351.4	105.0
			80	37.3	362.2	126.0	22.0	320.5	121.0	14.3	279.5	116.0
20	TWE240E	6400	40	55.2	536.5	117.0	34.1	497.8	112.0	23.6	459.4	106.0
			60	47.4	460.2	126.0	28.9	422.1	121.0	19.7	384.2	115.0
			80	39.5	384.0	135.0	23.8	346.5	130.0	15.9	308.9	124.0
		8000	40	62.7	609.2	110.0	38.6	563.8	105.0	26.6	518.8	100.0
			60	53.8	522.2	120.0	32.7	477.6	115.0	22.2	433.3	110.0
			80	44.8	435.4	130.0	26.8	391.5	125.0	17.9	347.9	120.0
		9600	40	69.4	673.9	105.0	42.7	622.3	100.0	29.3	571.5	95.0
			60	59.4	577.4	115.0	36.1	526.8	111.0	24.5	476.7	106.0
			80	49.5	481.0	126.0	29.6	431.4	121.0	19.6	382.6	117.0
25	TWE300E	8000	40	60.9	611.5	110.5	37.7	567.6	105.4	26.1	523.0	100.3
			60	52.3	524.6	120.5	32.0	481.1	115.5	21.8	436.7	110.3
			80	43.6	437.8	130.5	26.2	394.6	125.5	17.5	350.3	120.4
		10000	40	67.9	681.6	102.9	42.0	631.2	98.2	28.9	580.2	93.5
			60	58.2	584.4	113.9	35.5	534.5	109.3	24.1	483.9	104.6
			80	48.6	487.4	124.9	29.1	437.9	120.4	19.3	387.5	115.7
		12000	40	73.7	740.0	96.9	45.5	684.0	92.6	31.3	627.7	88.2
			60	63.2	634.2	108.7	38.5	578.9	104.5	26.1	523.0	100.2
			80	52.7	528.6	120.6	31.5	473.8	116.4	20.9	418.3	112.1

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Table 59. Hot Water Heating Coil Capacity - Standard/SZVAV/2-Speed VFD[a] Air Handler (continued)

Tons	Unit Model No.	Airflow (CFM)	Entering Air Temp. (°F)	Entering Water Temperature (°F) 210.0								
				Water Temperature Drop (°F)								
				20.0			30.0			40.0		
				GPM[b]	MBh[c]	LAT[d]	GPM[b]	MBh[c]	LAT[d]	GPM[b]	MBh[c]	LAT[d]
5	TWE061D, TWE061E	1600	40	13.9	134.3	117.0	8.6	124.8	112.0	6.0	115.8	107.0
			60	12.0	116.3	127.0	7.4	107.1	122.0	5.1	98.3	117.0
			80	10.2	98.4	137.0	6.1	89.5	132.0	4.2	80.9	127.0
		2000	40	15.7	152.0	110.0	9.7	140.9	105.0	6.7	130.2	100.0
			60	13.6	131.6	121.0	8.3	120.7	116.0	5.7	110.5	111.0
			80	11.5	111.2	131.0	6.9	100.7	126.0	4.7	90.7	122.0
		2400	40	17.3	167.7	104.0	10.6	155.0	99.0	7.4	142.9	95.0
			60	15.0	145.1	116.0	9.1	132.8	111.0	6.2	121.0	106.0
			80	12.6	122.6	127.0	7.6	110.6	122.0	5.1	99.3	118.0
7½	TWE090D, TWE090E	2400	40	21.6	209.2	120.0	13.4	195.7	115.0	9.4	182.7	110.0
			60	18.7	181.5	130.0	11.6	168.3	125.0	8.0	155.6	120.0
			80	15.9	153.9	139.0	9.7	141.0	134.0	6.6	28.6	129.0
		3000	40	24.5	237.4	113.0	15.2	221.5	108.0	10.6	206.2	103.0
			60	21.2	205.8	123.0	13.1	190.3	118.0	9.0	175.4	114.0
			80	18.0	174.4	134.0	10.9	159.2	129.0	7.4	144.7	124.0
		3600	40	27.1	262.3	107.0	16.8	244.1	102.0	11.7	226.8	98.0
			60	23.4	227.3	118.0	14.4	209.6	114.0	9.9	192.6	109.0
			80	19.8	192.4	129.0	12.0	175.2	125.0	8.2	158.7	121.0
10	TWE120D, TWE120E	3200	40	31.7	307.4	129.0	19.2	279.9	121.0	13.0	252.6	113.0
			60	27.4	265.1	136.0	16.4	238.2	129.0	10.9	211.0	121.0
			80	23.0	223.0	144.0	13.5	196.5	137.0	8.7	169.1	129.0
		4000	40	36.1	350.2	121.0	21.8	317.6	113.0	14.7	285.5	106.0
			60	31.1	301.7	130.0	18.5	269.9	122.0	12.3	238.2	115.0
			80	26.1	253.4	138.0	15.3	222.3	131.0	9.8	190.8	124.0
		4800	40	40.0	387.4	114.0	24.1	350.3	107.0	16.2	313.9	100.0
			60	34.4	333.6	124.0	20.4	297.3	117.0	13.5	261.7	110.0
			80	28.9	279.9	134.0	16.8	244.6	127.0	10.8	209.5	120.0
12½	TWE150E	4000	40	40.1	402.7	132.8	24.9	374.7	126.4	17.2	346.1	119.8
			60	34.7	349.1	140.5	21.3	321.3	134.1	14.6	292.7	127.5
			80	29.4	295.5	148.1	17.8	267.8	141.7	11.9	239.2	135.1
		5000	40	45.5	457.6	124.4	28.2	424.6	118.3	19.5	391.0	112.1
			60	39.4	396.4	133.1	24.1	363.7	127.1	16.5	330.2	120.9
			80	33.4	335.3	141.8	20.1	302.7	135.8	13.4	269.4	129.7
		6000	40	50.2	504.5	117.5	31.0	467.1	111.8	21.4	429.1	105.9
			60	43.5	436.8	127.1	26.5	399.7	121.4	18.0	362.0	115.6
			80	36.7	369.2	136.7	22.1	332.4	131.1	14.7	294.9	125.3

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Table 59. Hot Water Heating Coil Capacity - Standard/SZVAV/2-Speed VFD[a] Air Handler (continued)

15	TWE180E	4800	40	45.1	437.0	124.0	27.8	404.7	118.0	19.2	372.9	112.0
			60	39.0	378.3	133.0	23.8	346.6	127.0	16.2	315.2	120.0
			80	33.0	319.8	141.0	19.8	288.6	135.0	13.3	257.5	129.0
		6000	40	51.3	496.8	116.0	31.5	458.9	110.0	21.7	421.5	105.0
			60	44.4	429.9	126.0	27.0	392.6	120.0	18.3	355.8	115.0
			80	37.5	363.0	136.0	22.4	326.5	130.0	14.9	290.3	125.0
		8000	40	56.7	549.8	110.0	34.8	506.7	105.0	23.9	464.3	99.0
			60	49.1	475.5	121.0	29.8	433.1	115.0	20.2	391.5	110.0
			80	41.4	401.3	131.0	24.7	359.8	126.0	16.4	319.0	121.0
20	TWE240E	6400	40	59.5	576.5	123.0	37.0	538.3	118.0	25.8	500.5	112.0
			60	51.6	500.0	132.0	31.8	462.4	127.0	21.9	425.0	121.0
			80	43.7	423.7	141.0	26.6	386.6	136.0	18.0	349.7	130.0
		8000	40	67.6	654.9	115.0	41.9	610.0	110.0	29.1	565.7	105.0
			60	58.6	567.8	125.0	36.0	523.6	120.0	24.7	479.9	115.0
			80	49.6	480.7	135.0	30.0	437.3	130.0	20.3	394.2	125.0
		9600	40	74.8	724.6	110.0	46.3	673.8	105.0	32.1	623.6	100.0
			60	64.8	628.0	120.0	39.7	578.0	115.0	27.2	528.4	111.0
			80	54.8	531.4	131.0	33.1	482.2	126.0	22.3	433.5	122.0
25	TWE300E	8000	40	65.4	656.9	115.7	40.7	613.8	110.8	28.4	570.1	105.7
			60	56.7	569.9	125.7	35.0	527.2	120.8	24.1	483.8	115.8
			80	48.1	483.1	135.7	29.3	440.6	130.8	19.8	397.3	125.8
		10000	40	72.9	732.5	107.5	45.3	683.0	103.0	31.5	633.0	98.4
			60	63.2	635.2	118.6	38.9	586.2	114.1	26.7	536.5	109.5
			80	53.5	538.0	129.6	32.5	489.4	125.1	21.9	440.0	120.6
		12000	40	79.2	795.5	101.1	49.2	740.5	96.9	34.1	685.1	92.7
			60	68.6	689.5	113.0	42.2	635.1	108.8	28.9	580.3	104.6
			80	58.1	583.7	124.9	35.2	529.9	120.7	23.7	475.4	116.5

(a) SZVAV/2-Speed VFD available for 10-25 ton only.
(b) GPM - Gallons Per Minute
(c) MBh Capacity: BTU/HR/1000
(d) LAT - Leaving Air Temperature (°F)

Table 60. Hot Water Heating Coil - Water Side Pressure Drop @ 180°F Entering Water Temperature - Standard/SZVAV/2-Speed VFD[a] Air Handler

Tons	Unit Model No.	Gallons Per Minute (GPM)																		
		2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38
		Pressure Drop (Ft. of Water)																		
5	TWE061D,E	.02	.07	.15	.26	.40	.56	.75	.97	1.22	1.49	1.78	-	-	-	-	-	-	-	-
7½	TWE090D,E	-	-	.06	.11	.16	.23	.30	.39	.48	.58	.70	.82	.95	1.09	1.24	1.40	1.57	-	-
10	TWE120D,E	-	-	-	.06	.09	.13	.17	.22	.27	.33	.39	.46	.54	.62	.70	.79	.89	.99	1.10
12½	TWE150E	-	-	-	-	.11	.15	.20	.26	.32	.39	.47	.55	.64	.73	.83	.94	1.05	1.17	1.29
15	TWE180E	-	-	-	-	.11	.15	.20	.26	.32	.39	.47	.55	.64	.73	.83	.94	1.05	1.17	1.29
20	TWE240E	-	-	-	-	-	.17	.23	.30	.37	.45	.53	.63	.72	.83	.94	1.06	1.19	1.32	1.46
25	TWE300E	-	-	-	-	-	.17	.23	.30	.37	.45	.53	.63	.72	.83	.94	1.06	1.19	1.32	1.46

Continued

Tons	Unit Model No.	Gallons Per Minute (GPM)																		
		40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76
		Pressure Drop (Ft. of Water)																		
5	TWE061D,E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7½	TWE090D,E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	TWE120D,E	1.21	1.32	1.44	1.57	1.70	1.84	-	-	-	-	-	-	-	-	-	-	-	-	-
12½	TWE150E	1.42	1.56	1.70	1.85	2.00	2.16	2.33	2.50	2.67	2.86	3.04	3.24	3.44	3.64	3.85	4.07	-	-	-
15	TWE180E	1.42	1.56	1.70	1.85	2.00	2.16	2.33	2.50	2.67	2.86	3.04	3.24	3.44	3.64	3.85	4.07	-	-	-
20	TWE240E	1.61	1.76	1.92	2.09	2.26	2.44	2.63	2.82	3.02	3.22	3.43	3.65	3.87	4.10	4.34	4.58	4.83	5.08	5.34
25	TWE300E	1.61	1.76	1.92	2.09	2.26	2.44	2.63	2.82	3.02	3.22	3.43	3.65	3.87	4.10	4.34	4.58	4.83	5.08	5.34

(a) SZVAV/2-Speed VFD available for 10-25 ton only.

Controls

ReliaTel™ Controlled Units

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 Odyssey units with ReliaTel control:

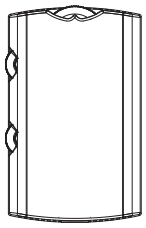
RA Remote Sensor

BAYSTAT170*

Return Air Remote Sensor which can be mounted in the return air duct to report return air temperature.

Manual Changeover

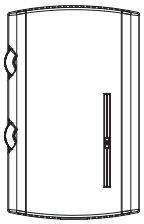
BAYSENS106*
X1379083901
SEN01515



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

Manual/Automatic Changeover

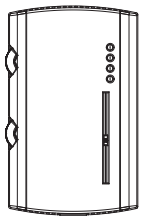
BAYSENS108*
X1379083701
SEN01513



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

Manual/Automatic Changeover

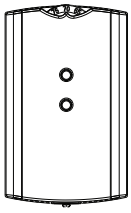
BAYSENS110*
X1379084601
SEN01522



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

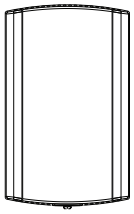
BAYSENS074*
X1351152701
SEN01447



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

Remote Sensor

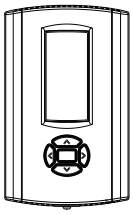
BAYSENS077*
X1351152801
SEN01448



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

Wireless Zone Sensor

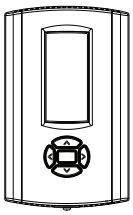
BAYSENS050*
X1379082401
SEN01430



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*
X1379088401
SEN01577

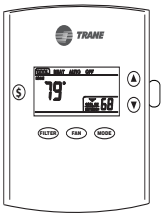


Auto or manual changeover with seven-day programming. Keyboard selection of Heat, Cool, Fan, Auto, EM Heat or On.
All sensors have System On, Heat, Cool, Service LED/ indicators as standard.
Night Setback Sensors have one (1) Occupied, one (1) Un-occupied, and one (1) Override program per day.

Electromechanical Controlled Units

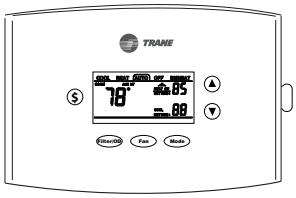
Non-Programmable Thermostats

TCONT200***
(1H/1C)



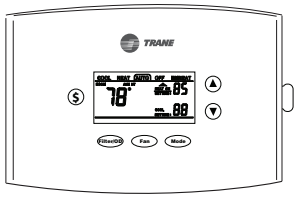
Auto-changeover
Backlit Display & Keys
Filter Reminder
Keypad Lock

TCONT401***
(2H/1C)



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

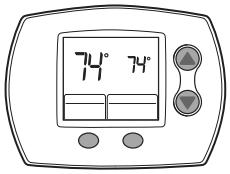
TCONT402***
(3H/2C)



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

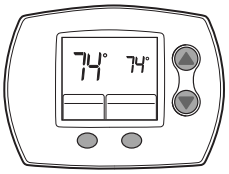
Programmable Thermostats

TCONT600***
(1H/1C)



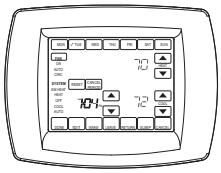
5/2 or 5/1/1 Programming
Actual and Setpoint temps
displayed simultaneously

TCONT602***
(2H/2C)



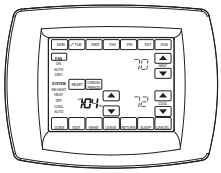
5/2 or 5/1/1 Programming
Actual and Setpoint temps
displayed simultaneously

TCONT800***
(1H/1C)



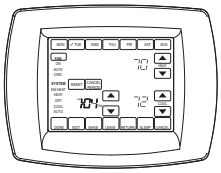
Interactive touchscreen
Large display
Real time clock

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:

- *Thermostats are required for 2-Speed VFD applications.*
- *Thermostats may be used with ReliaTel-equipped Cooling units, but only when matched with Standard Air Handlers (SZVAV Air Handlers excluded).*

Electrical Data

Condenser Electrical Data

Table 61. Electrical Characteristics — Compressor and Condenser Fan Motors —60 Hz

		Compressor Motor					Condenser Fan Motor				
					Amps					Amps	
					RLA	LRA				FLA	LRA
Tons	Unit Model No.	No.	Volts	Phase	(Ea.)	(Ea.)	No.	Volts	Phase	(Ea.)	(Ea.)
6	TTA073D3	1	208-230	3	22.4	149	1	208-230	1	3.1	8.1
	TTA073D4	1	460	3	10.6	75	1	460	1	1.6	3.8
	TTA073DK	1	380	3	11.3	88	1	380	1	2.7	7
	TTA073DW	1	575	3	7.9	54	1	575	1	1.2	3
7½	TTA090D3	1	208-230	3	25	164	1	208-230	1	3.1	8.1
	TTA090D4	1	460	3	12.9	100	1	460	1	1.6	3.8
	TTA090DK	1	380	3	14.3	94.3	1	380	1	2.7	7
	TTA090DW	1	575	3	10.6	78	1	575	1	1.2	3
10	TTA120D3	1	208-230	3	30.1	225	1	208-230	1	5	14.4
	TTA120D4	1	460	3	16.7	114	1	460	1	2.5	5.8
	TTA120DK	1	380	3	19.8	140	1	380	1	3.4	7.8
	TTA120DW	1	575	3	12.4	80	1	575	1	2	5.1
	TTA120E3	2	208-230	3	16	110	1	208-230	1	5	14.4
	TTA120E4	2	460	3	7.8	52	1	460	1	2.5	5.8
	TTA120EK	2	380	3	10.4	65.6	1	380	1	3.4	7.8
	TTA120EW	2	575	3	6	38.9	1	575	1	2	5.1
	TTA120F3	2	208-230	3	17.6	123	1	208-230	1	5	14.4
	TTA120F4	2	460	3	9.6	62	1	460	1	2.5	5.8
	TTA120FW	2	575	3	6.1	40	1	575	1	2	5.1
12½	TTA150E3	2	208-230	3	22.4	149	1	208-230	1	5	14.4
	TTA150E4	2	460	3	10.6	75	1	460	1	2.5	5.8
	TTA150EK	2	380	3	11.3	88	1	380	1	3.4	7.8
	TTA150EW	2	575	3	8.6	54	1	575	1	2	5.1
15	TTA180E3	2	208-230	3	25	164	2	208-230	1	5	14.4
	TTA180E4	2	460	3	12.2	100	2	460	1	2.5	5.8
	TTA180EK	2	380	3	14.3	94.3	2	380	1	3.4	7.8
	TTA180EW	2	575	3	9.6	78	2	575	1	2	5.1
	TTA180F3	2	208-230	3	25	164	2	208-230	1	5	14.4
	TTA180F4	2	460	3	12.2	100	2	460	1	2.5	5.8
	TTA180FK	2	380	3	14.3	94.3	2	380	1	3.4	7.8
	TTA180FW	2	575	3	9.9	78	2	575	1	2	5.1

Continued on next page

Table 61. Electrical Characteristics — Compressor and Condenser Fan Motors —60 Hz (continued)

Tons	Unit Model No.	Compressor Motor					Condenser Fan Motor				
					Amps					Amps	
					RLA	LRA				FLA	LRA
		No.	Volts	Phase	(Ea.)	(Ea.)	No.	Volts	Phase	(Ea.)	(Ea.)
20	TTA240E3	2	208-230	3	39.1	267	2	208-230	1	5	14.4
	TTA240E4	2	460	3	18.6	142	2	460	1	2.5	5.8
	TTA240EK	2	380	3	23.1	160	2	380	1	3.4	7.8
	TTA240EW	2	575	3	15.4	103	2	575	1	2	5.1
	TTA240F3	2	208-230	3	39.1	267	2	208-230	1	5	14.4
	TTA240F4	2	460	3	19.8	142	2	460	1	2.5	5.8
	TTA240FK	2	380	3	23.1	160	2	380	1	3.4	7.8
	TTA240FW	2	575	3	15.8	103	2	575	1	2	5.1
25	TTA300F3	2	208-230	3	53.6	245	2	208-230	1	5	14.4
	TTA300F4	2	460	3	20.7	125	2	460	1	2.5	5.8
	TTA300FK	2	380	3	26.4	145	2	380	1	3.4	7.8
	TTA300FW	2	575	3	16.4	100	2	575	1	2	5.1

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

Table 62. Unit Wiring — Condensing Units — 60 Hz

Tons	Unit Model Number	Unit Operating Voltage Range	Minimum Circuit Ampacity	Maximum Fuse or HACR Circuit Breaker Size[a]
6	TTA073D3	187-253	31.1	40
	TTA073D4	414-506	14.9	20
	TTA073DK	342-418	16.8	20
	TTA073DW	518-632	11.1	15
7½	TTA090D3	187-253	34.4	45
	TTA090D4	414-506	17.7	25
	TTA090DK	342-418	20.6	25
	TTA090DW	518-632	14.5	20
10	TTA120D3	187-253	42.6	60
	TTA120D4	414-506	23.4	30
	TTA120DK	342-418	28.2	35
	TTA120DW	518-632	17.5	25
	TTA120E3	187-253	41.0	45
	TTA120E4	414-506	20.1	25
	TTA120EK	342-418	26.9	30
	TTA120EW	518-632	15.5	20
	TTA120F3	187-253	44.6	50
	TTA120F4	414-506	24.1	30
	TTA120FW	518-632	15.7	20
12½	TTA150E3	187-253	55.4	70
	TTA150E4	414-506	26.4	30
	TTA150EK	342-418	28.8	35
	TTA150EW	518-632	21.4	25

Continued on next page

Table 62. Unit Wiring — Condensing Units — 60 Hz (continued)

Tons	Unit Model Number	Unit Operating Voltage Range	Minimum Circuit Ampacity	Maximum Fuse or HACR Circuit Breaker Size[a]
15	TTA180E3	187-253	66.3	80
	TTA180E4	414-506	32.5	40
	TTA180EK	342-418	39.0	45
	TTA180EW	518-632	25.6	30
	TTA180F3	187-253	66.3	80
	TTA180F4	414-506	32.5	40
	TTA180FK	342-418	39.0	45
	TTA180FW	518-632	26.3	30
20	TTA240E3	187-253	98.0	110
	TTA240E4	414-506	46.9	60
	TTA240EK	342-418	58.8	70
	TTA240EW	518-632	38.7	45
	TTA240F3	187-253	98.0	110
	TTA240F4	414-506	49.6	60
	TTA240FK	342-418	58.8	70
	TTA240FW	518-632	39.6	45
25	TTA300F3	187-253	130.6	150
	TTA300F4	414-506	51.6	60
	TTA300FK	342-418	66.2	70
	TTA300FW	518-632	40.9	45

Note: Electrical characteristics reflect nameplate values and are calculated in accordance with cULus and ARI specifications. 7½ and 10 ton values are system rated; 12½ - 25 ton values are condensing unit only rated.

(a) HACR type circuit breaker per NEC.

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

Table 63. Voltage Operating Ranges (All Air Handlers)

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

Table 64. Electrical Characteristics — Standard and Low Static Motors — 60 Hz Standard Air Handler[a]

		Standard Evaporator Fan Motor								Low Static Evaporator Fan Motor							
						Amps								Amps			
Tons	Unit Model Number	No.	Volts	Phase	Hp	FLA	LRA	MCA	MFS	No.	Volts	Phase	Hp	FLA	LRA	MCA	MFS
5	TWE061D1, E1	1	208	1	0.75	6.0	41.0	7.5	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE061D1, E1	1	230	1	0.75	5.9	45.0	7.4	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE061D3, E3	1	208	3	0.75	2.5	16.4	3.1	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE061D3, E3	1	230	3	0.75	2.4	16.4	3.0	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE061D4, E4	1	460	3	0.75	1.2	8.2	1.5	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE061DW	1	575	3	0.75	1.3	6.1	1.6	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7½	TWE090D1, E1	1	208	1	1.50	6.8	31.5	8.5	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE090D1, E1	1	230	1	1.50	6.2	31.5	7.8	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE090D3, E3	1	208	3	1.50	5.3	34.3	6.6	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE090D3, E3	1	230	3	1.50	5.0	34.3	6.3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE090D3, E3[b]	1	460	3	1.50	2.5	17.0	3.1	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE090DW	1	575	3	1.50	1.8	13.6	2.3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10	TWE120D1, E1	1	208	1	2.00	8.5	57.4	10.6	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE120D1, E1	1	230	1	2.00	7.7	57.4	9.6	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE120D3, E3	1	208	3	2.00	7.0	33.9	7.8	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE120D3, E3	1	230	3	2.00	6.6	33.9	7.3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE120D3, E3[b]	1	460	3	2.00	3.3	19.0	3.6	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE120DW, EW	1	575	3	2.00	2.3	15.6	4.0	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12½	TWE150E3	1	208	3	2.00	5.95	23.0	7.4	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE150E3	1	230	3	2.00	5.5	23.0	6.9	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE150E3[b]	1	460	3	2.00	2.75	23.0	3.4	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE150EW	1	575	3	2.00	2.2	18.0	2.8	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
15	TWE180E3	1	208	3	3.00	9.4	74.9	11.8	25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE180E3	1	230	3	3.00	9.2	74.9	11.5	25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE180E3[b]	1	460	3	3.00	4.6	39.3	5.8	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE180EW	1	575	3	3.00	3.4	24.6	4.3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20	TWE240E3	1	208	3	5.00	14.0	90.8	17.5	25	1	208	3	3.00	9.4	74.9	11.8	25
	TWE240E3	1	230	3	5.00	13.6	103.0	17.0	25	1	230	3	3.00	9.2	74.9	11.5	25
	TWE240E4	1	460	3	5.00	6.6	44.8	9.0	15	1	460	3	3.00	4.6	39.3	5.8	15
	TWE240EW	1	575	3	5.00	5.3	36.2	6.6	15	1	575	3	3.00	3.4	24.6	4.3	15
25	TWE300E3	1	208	3	7.50	19.6	150	25	40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE300E3	1	230	3	7.50	17.8	150	25	40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE300E4	1	460	3	7.50	8.9	75	12	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE300EW	1	575	3	7.50	7.1	60	9	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

(a) For additional information contact product support.
(b) Field wired for 460V.

Table 65. Electrical Characteristics — Standard and Oversized Motors — 60 Hz SZVAV and 2-Speed VFD Air Handler[(a)]

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

(a) For additional information contact product support.

Table 66. Electrical Characteristics — High and Ultra-High Static Motors — 60 Hz Standard Air Handler[a]

		High Static Evaporator Fan Motor								Ultra-High Static Evaporator Fan Motor							
						Amps								Amps			
Tons	Unit Model Number	No.	Volts	Phase	Hp	FLA	LRA	MCA	MFS	No.	Volts	Phase	Hp	FLA	LRA	MCA	MFS
5	TWE061D1, E1	1	208	1	1.50	6.8	31.5	8.5	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE061D1, E1	1	230	1	1.50	6.2	31.5	7.8	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE061D3, E3	1	208	3	1.50	5.3	34.3	6.6	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE061D3, E3	1	230	3	1.50	5.0	34.3	6.3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE061D4, E4	1	460	3	1.50	2.5	17.0	3.1	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE061DW	1	575	3	1.50	1.8	13.6	2.3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7½	TWE090D1, E1	1	208	1	2.00	8.5	57.4	10.6	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE090D1, E1	1	230	1	2.00	7.7	57.4	9.6	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE090D3, E3	1	208	3	2.00	7.0	33.9	7.8	15	1	208	3	3.00	9.4	74.9	11.8	25
	TWE090D3, E3	1	230	3	2.00	6.6	33.9	7.3	15	1	230	3	3.00	9.2	74.9	11.5	25
	TWE090D3, E3[b]	1	460	3	2.00	3.3	19.0	3.6	15	1	460	3	3.00	4.6	39.3	5.8	15
	TWE090DW	1	575	3	2.00	2.3	15.6	4.0	15	1	575	3	3.00	3.4	24.6	4.3	15
10	TWE120D1, E1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE120D1, E1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE120D3, E3	1	208	3	3.00	9.4	74.9	11.8	25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE120D3, E3	1	230	3	3.00	9.2	74.9	11.5	25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE120D3, E3[b]	1	460	3	3.00	4.6	39.3	5.8	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE120DW, EW	1	575	3	3.00	3.4	24.6	4.3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12½	TWE150E3	1	208	3	3.00	9.4	74.9	11.8	25	1	208	3	5.00	14.0	98.0	17.5	35
	TWE150E3	1	230	3	3.00	9.2	74.9	11.5	25	1	230	3	5.00	13.6	103.0	17	35
	TWE150E3[b]	1	460	3	3.00	4.6	39.3	5.8	15	1	460	3	5.00	6.6	44.8	8.3	20
	TWE150EW	1	575	3	3.00	3.4	24.6	4.3	15	1	575	3	5.00	5.2	36.2	6.5	15
15	TWE180E3	1	208	3	5.00	14.0	98.0	17.5	35	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE180E3	1	230	3	5.00	13.6	103.0	17	35	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE180E3[b]	1	460	3	5.00	6.6	44.8	8.3	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE180EW	1	575	3	5.00	5.2	36.2	6.5	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20	TWE240E3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	208	3	7.50	20	114.0	25.0	45
	TWE240E3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	230	3	7.50	17.6	126.0	22.0	40
	TWE240E4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	460	3	7.50	9.0	61.4	11.3	25
	TWE240EW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	575	3	7.50	7.2	49.8	9.0	20
25	TWE300E3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE300E3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE300E4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TWE300EW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

(a) For additional information contact product support.
(b) Field wired for 460V.

Table 67. Unit Wiring with Electric Heat (Single Point Connection) — 5-10 Ton Standard Air Handlers — 60 Hz

Tons	Used With	Heater Model No.	Heater KW Rating[a]	Unit Power Supply	Control Stages	Minimum Circuit Ampacity[b]	Maximum Fuse or HACR Circuit Breaker Size[b][c]
5	TWE061D1 TWE061E1	BAYHTRL106A	4.33/5.76	208-230/1/60	1	33.5/37.4	35/40
		BAYHTRL112A	8.65/11.52		1	59.5/67.4	60/70
		BAYHTRL117A	12.98/17.28		1	85.5/97.4	90/100
		BAYHTRL123A	17.31/23.04		2	111.5/127.4[d]	125/150
7½	TWE090D1 TWE090E1	BAYHTRL106A	4.33/5.76		1	34.5/37.8	40/40
		BAYHTRL112A	8.65/11.52		1	60.5/67.8[d]	70/70
		BAYHTRL117A	12.98/17.28		1	86.5/97.8	90/100
		BAYHTRL123A	17.31/23.04		2	112.5/127.8[d]	125/150
		BAYHTRL129A	21.63/28.80		2	138.6/157.8[d]	150/175
10	TWE120D1 TWE120E1	BAYHTRL106A	4.33/5.76		1	36.6/39.6	40/45
		BAYHTRL112A	8.65/11.52		1	62.6/69.6[d]	70/70
		BAYHTRL117A	12.98/17.28		1	88.6/99.6	90/100
		BAYHTRL123A	17.31/23.04		2	114.6/129.6[d]	125/150
		BAYHTRL129A	21.63/28.80		2	140.7/159.6[d]	150/175
5	TWE061D3 TWE061E3	BAYHTRL305A	3.76/5.00	208-230/3/60	1	16.1/18	20/20
		BAYHTRL310A	7.48/9.96		1	29/33	30/35
		BAYHTRL315A	11.24/14.96		1	42.2/48	45/50
		BAYHTRL325A	18.72/24.92		2	68/77.9[d]	70/80
7½	TWE090D3 TWE090E3	BAYHTRL305A	3.76/5.00		1	19.6/21.3	25/25
		BAYHTRL310A	7.48/9.96		1	32.5/36.2	35/40
		BAYHTRL315A	11.24/14.96		1	45.7/51.2	50/60
		BAYHTRL325A	18.72/24.92		2	71.5/82[d]	80/90
		BAYHTRL335A	26.20/34.88		2	98.7/112[e]	100/125
10	TWE120D3 TWE120E3	BAYHTRL305A	3.76/5.00		1	21/23	25/30
		BAYHTRL310A	7.48/9.96		1	34/38	35/40
		BAYHTRL315A	11.24/14.96		1	47/53	50/60
		BAYHTRL325A	18.72/24.92		2	73/83[d]	80/90
		BAYHTRL335A	26.20/34.88		2	98.7/113[e]	100/125

continued on next page

Table 67. Unit Wiring with Electric Heat (Single Point Connection) — 5-10 Ton Standard Air Handlers — 60 Hz (continued)

Tons	Used With	Heater Model No.	Heater KW Rating[a]	Unit Power Supply	Control Stages	Minimum Circuit Ampacity[b]	Maximum Fuse or HACR Circuit Breaker Size[b][c]
5	TWE061D4 TWE061E4	BAYHTRL405A	5	460/3/60	1	10	15
		BAYHTRL410A	9.96		1	17	20
		BAYHTRL415A	14.96		1	25	25
		BAYHTRL425A	24.92		2	40	40
7½	TWE090D3[f] TWE090E3[f]	BAYHTRL405A	5		1	11	15
		BAYHTRL410A	9.96		1	19	20
		BAYHTRL415A	14.96		1	26	30
		BAYHTRL425A	24.92		2	41	45
		BAYHTRL435A	34.88		2	56	60
10	TWE120D3[f] TWE120E3[f]	BAYHTRL405A	5		1	12	15
		BAYHTRL410A	9.96		1	20	20
		BAYHTRL415A	14.96		1	27	30
		BAYHTRL425A	24.92		2	42	45
		BAYHTRL435A	34.88		2	57	60
5	TWE061DW	BAYHTRLW05A	5	575/3/60	1	8	15
		BAYHTRLW10A	9.96		1	15	15
		BAYHTRLW15A	14.96		1	21	20
		BAYHTRLW25A	24.92		2	33	35
7½	TWE090DW	BAYHTRLW05A	5		1	11	15
		BAYHTRLW10A	9.96		1	17	15
		BAYHTRLW15A	14.96		1	23	25
		BAYHTRLW25A	24.92		2	36	35
		BAYHTRLW35A	34.88		2	48	45
10	TWE120DW TWE120EW	BAYHTRLW05A	5		1	10	15
		BAYHTRLW10A	9.96		1	16	15
		BAYHTRLW15A	14.96		1	22	25
		BAYHTRLW25A	24.92		2	35	35
		BAYHTRLW35A	34.88		2	47	45

(a) kW ratings are at: 208/240V for 208-230V air handlers.
480V for 460V air handlers
600V for 575V air handlers
For other than rated voltage, capacity = (Voltage/Rated Voltage)^2 x Rated Capacity.
(b) Any power supply and circuits must be wired and protected in accordance with local codes.
(c) The HACR circuit breaker is for U.S.A. installations only.
(d) Field wire must be rated at least 75°C.
(e) Field wire must be rated at least 90°C.
(f) With motor field converted to 460V.

Table 68. Unit Wiring with Electric Heat (Single Point Connection) — 10 Ton SZVAV and 2-Speed VFD Air Handlers — 60 Hz

Tons	Used With	Heater Model No.	Heater KW Rating[a]	Unit Power Supply	Control Stages	Minimum Circuit Ampacity[b]	Maximum Fuse or HACR Circuit Breaker Size[b][c]
10	TWE120D3*3, E3*3	BAYHTRL305A	3.76/5.00	208-230/3/60	1	21/23	25/25
		BAYHTRL310A	7.48/9.96		1	34/38	35/40
		BAYHTRL315A	11.24/14.96		1	47/53	50/60
		BAYHTRL325A	18.72/24.92		2	73/83	80/90
		BAYHTRL335A	26.20/34.88		2	99/113	100/125
	TWE120D3*4, E3*4	BAYHTRL305A	3.76/5.00		1	25/27	30/30
		BAYHTRL310A	7.48/9.96		1	38/42	40/45
		BAYHTRL315A	11.24/14.96		1	38/57	40/60
		BAYHTRL325A	18.72/24.92		2	77/87	80/90
		BAYHTRL335A	26.20/34.88		2	103/117	110/125
	TWE120D4*3, E4*3	BAYHTRL405A	5	460/3/60	1	12	15
		BAYHTRL410A	9.96		1	19	20
		BAYHTRL415A	14.96		1	27	30
		BAYHTRL425A	24.92		2	42	45
		BAYHTRL435A	34.88		2	57	60
	TWE120D4*4, E4*4	BAYHTRL405A	5		1	14	15
		BAYHTRL410A	9.96		1	21	25
		BAYHTRL415A	14.96		1	29	30
		BAYHTRL425A	24.92		2	44	45
		BAYHTRL435A	34.88		2	59	60
	TWE120DW*3, EW*3	BAYHTRLW05A	5	575/3/60	1	9	15
		BAYHTRLW10A	9.96		1	16	20
		BAYHTRLW15A	14.96		1	22	25
		BAYHTRLW25A	24.92		2	34	35
		BAYHTRLW35A	34.88		2	47	50
	TWE120DW*4, EW*4	BAYHTRLW05A	5		1	11	15
		BAYHTRLW10A	9.96		1	18	20
		BAYHTRLW15A	14.96		1	24	25
		BAYHTRLW25A	24.92		2	36	40
		BAYHTRLW35A	34.88		2	49	50

(a) kW ratings are at: 208/240V for 208-230V air handlers.
480V for 460V air handlers
600V for 575V air handlers
For other than rated voltage, capacity = (Voltage/Rated Voltage)^2 x Rated Capacity.
(b) Any power supply and circuits must be wired and protected in accordance with local codes.
(c) The HACR circuit breaker is for U.S.A. installations only.

Table 69. Unit Wiring with Electric Heat (Single Point Connection) — 12½ - 25 Ton Standard Air Handlers

Tons	Used With	Heater Model No.	Heater KW Rating[a]	Unit Power Supply	Control Stages	Minimum Circuit Ampacity[b]	Maximum Fuse or HACR Circuit Breaker Size[b][c]
12½	TWE150E3	BAYHTRM310A	7.51/10.00	208-230/3/60	1	33.5/36.9	35/40
		BAYHTRM320A	14.96/19.92		1	59.3/66.8	60/70
		BAYHTRM330A	22.47/29.92		2	85.5/96.8	90/100
		BAYHTRM350A	37.44/49.84		2	137.3/156.7	150/175
15	TWE180E3	BAYHTRM310A	7.51/10.00		1	37.8/41.6	45/45
		BAYHTRM320A	14.96/19.92		1	63.7/71.4	70/80
		BAYHTRM330A	22.47/29.92		2	89.8/101.5	90/110
		BAYHTRM350A	37.44/49.84		2	141.6/161.4[d]	150/175
20	TWE240E3	BAYHTRM310A	7.51/10.00		1	44.1/49	60/60
		BAYHTRM320A	14.96/19.92		1	71/79	80/90
		BAYHTRM330A	22.47/29.92		2	97/109	100/110
		BAYHTRM350A	37.44/49.84		2	149/169[d]	150/175
25	TWE300E3	BAYHTRM310A	7.51/10		1	51/53	60/90
		BAYHTRM320A	14.96/19.92		1	77/83	85/90
		BAYHTRM330A	22.47/29.92		2	103/113	110/125
		BAYHTRM350A	37.44/49.84		2	155/173	175/175
12½	TWE150E3[e]	BAYHTRM410A	10	460/3/60	1	19	20
		BAYHTRM420A	19.92		1	34	35
		BAYHTRM430A	29.92		2	49	50
		BAYHTRM450A	49.84		2	79	80
15	TWE180E3[e]	BAYHTRM410A	10		1	21	25
		BAYHTRM420A	19.92		1	36	40
		BAYHTRM430A	29.92		2	51	60
		BAYHTRM450A	49.84		2	81	90
20	TWE240E4	BAYHTRM410A	10		1	24	30
		BAYHTRM420A	19.92		1	39	40
		BAYHTRM430A	29.92		2	54	60
		BAYHTRM450A	49.84		2	84	90
25	TWE300E4	BAYHTRM410A	10		1	27	30
		BAYHTRM420A	19.92		1	42	45
		BAYHTRM430A	29.92		2	57	60
		BAYHTRM450A	49.84		2	87	90

Table 69. Unit Wiring with Electric Heat (Single Point Connection) — 12½ - 25 Ton Standard Air Handlers

12½	TWE150EW	BAYHTRMW10A	10	575/3/60	1	15	15
		BAYHTRMW20A	19.92		1	27	30
		BAYHTRMW30A	29.92		2	39	40
		BAYHTRMW50A	49.84		2	63	70
15	TWE180EW	BAYHTRMW10A	10		1	17	20
		BAYHTRMW20A	19.92		1	30	30
		BAYHTRMW30A	29.92		2	42	45
		BAYHTRMW50A	49.84		2	67	70
20	TWE240EW	BAYHTRMW10A	10		1	20	25
		BAYHTRMW20A	19.92		1	32	35
		BAYHTRMW30A	29.92		2	45	45
		BAYHTRMW50A	49.84		2	70	70
25	TWE300EW	BAYHTRMW10A	10		1	22	25
		BAYHTRMW20A	19.92		1	34	35
		BAYHTRMW30A	29.92		2	47	50
		BAYHTRMW50A	49.84		2	72	80

(a) kW ratings are at: 208/240V for 208-230V air handlers.
480V for 460V air handlers
600V for 575V air handlers
For other than rated voltage, capacity = (Voltage/Rated Voltage)^2 x Rated Capacity.
(b) Any power supply and circuits must be wired and protected in accordance with local codes.
(c) The HACR circuit breaker is for U.S.A. installations only.
(d) Field wire must be rated at least 90°C.
(e) With motor field wired for 460V.

Table 70. Unit Wiring with Electric Heat (Single Point Connection) — 12½ - 25 Ton SZVAV and 2-Speed VFD Air Handlers

Tons	Used With	Heater Model No.	Heater KW Rating[a]	Unit Power Supply	Control Stages	Minimum Circuit Ampacity[b]	Maximum Fuse or HACR Circuit Breaker Size[b][c]
12½	TWE150E3*3	BAYHTRM310A	7.51/10.00	208-230/3/60	1	34/38	35/40
		BAYHTRM320A	14.96/19.92		1	60/68	60/70
		BAYHTRM330A	22.47/29.92		2	86/98	90/100
		BAYHTRM350A	37.44/49.84		2	138/158	150/175
	TWE150E3*4	BAYHTRM310A	7.51/10.00		1	43/47	45/50
		BAYHTRM320A	14.96/19.92		1	69/77	70/80
		BAYHTRM330A	22.47/29.92		2	95/107	100/110
		BAYHTRM350A	37.44/49.84		2	147/167	150/175
	TWE150E4*3	BAYHTRM410A	10	460/3/60	1	19	20
		BAYHTRM420A	19.92		1	34	35
		BAYHTRM430A	29.92		2	49	50
		BAYHTRM450A	49.84		2	79	80
	TWE150E4*4	BAYHTRM410A	10		1	23	25
		BAYHTRM420A	19.92		1	38	40
		BAYHTRM430A	29.92		2	53	60
		BAYHTRM450A	49.84		2	83	90
	TWE150EW*3	BAYHTRMW10A	10	575/3/60	1	16	20
		BAYHTRMW20A	19.92		1	28	30
		BAYHTRMW30A	29.92		2	41	45
		BAYHTRMW50A	49.84		2	66	70
	TWE150EW*4	BAYHTRMW10A	10		1	19	20
		BAYHTRMW20A	19.92		1	32	35
		BAYHTRMW30A	29.92		2	44	45
		BAYHTRMW50A	49.84		2	69	70

continued on next page

Table 70. Unit Wiring with Electric Heat (Single Point Connection) — 12½ - 25 Ton SZVAV and 2-Speed VFD Air Handlers

Tons	Used With	Heater Model No.	Heater KW Rating[a]	Unit Power Supply	Control Stages	Minimum Circuit Ampacity[b]	Maximum Fuse or HACR Circuit Breaker Size[b][c]
15	TWE180E3*3	BAYHTRM310A	7.51/10.00	208-230/3/60	1	38/42	40/45
		BAYHTRM320A	14.96/19.92		1	64/72	70/80
		BAYHTRM330A	22.47/29.92		2	90/102	90/110
		BAYHTRM350A	37.44/49.84		2	142/162	150/175
	TWE180E3*4	BAYHTRM310A	7.51/10.00		1	43/47	45/50
		BAYHTRM320A	14.96/19.92		1	69/77	70/80
		BAYHTRM330A	22.47/29.92		2	95/107	100/110
		BAYHTRM350A	37.44/49.84		2	147/167	150/175
	TWE180E4*3	BAYHTRM410A	10	460/3/60	1	21	25
		BAYHTRM420A	19.92		1	36	40
		BAYHTRM430A	29.92		2	51	60
		BAYHTRM450A	49.84		2	81	90
	TWE180E4*4	BAYHTRM410A	10		1	23	25
		BAYHTRM420A	19.92		1	38	40
		BAYHTRM430A	29.92		2	53	60
		BAYHTRM450A	49.84		2	83	90
	TWE180EW*3	BAYHTRMW10A	10	575/3/60	1	18	20
		BAYHTRMW20A	19.92		1	30	30
		BAYHTRMW30A	29.92		2	43	45
		BAYHTRMW50A	49.84		2	68	70
	TWE180EW*4	BAYHTRMW10A	10		1	19	20
		BAYHTRMW20A	19.92		1	32	35
		BAYHTRMW30A	29.92		2	44	45
		BAYHTRMW50A	49.84		2	69	70

continued on next page

Table 70. Unit Wiring with Electric Heat (Single Point Connection) — 12½ - 25 Ton SZVAV and 2-Speed VFD Air Handlers

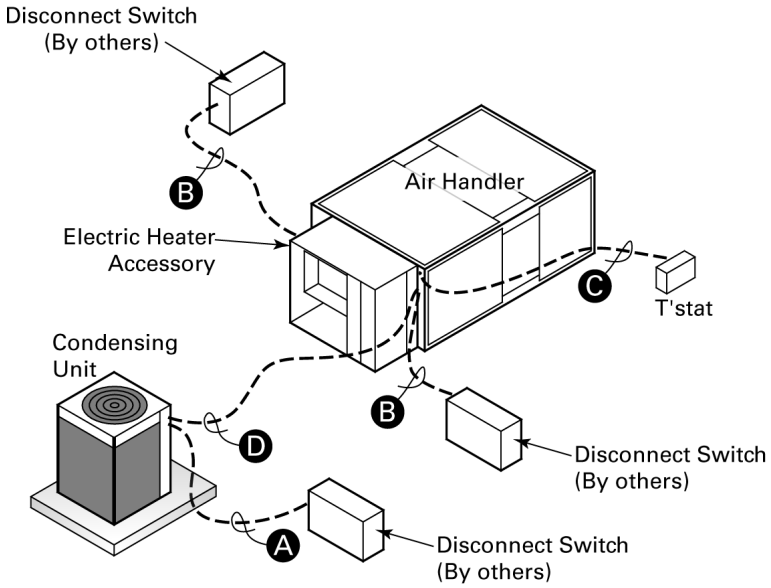
Tons	Used With	Heater Model No.	Heater KW Rating[a]	Unit Power Supply	Control Stages	Minimum Circuit Ampacity[b]	Maximum Fuse or HACR Circuit Breaker Size[b][c]
20	TWE240E3*3	BAYHTRM310A	7.51/10.00	208-230/3/60	1	43/47	45/50
		BAYHTRM320A	14.96/19.92		1	69/77	70/80
		BAYHTRM330A	22.47/29.92		2	95/107	100/110
		BAYHTRM350A	37.44/49.84		2	147/167	150/175
	TWE240E3*4	BAYHTRM310A	7.51/10.00		1	51/55	60/60
		BAYHTRM320A	14.96/19.92		1	77/85	80/90
		BAYHTRM330A	22.47/29.92		2	103/115	110/125
		BAYHTRM350A	37.44/49.84		2	155/175	175/175
	TWE240E4*3	BAYHTRM410A	10	460/3/60	1	23	25
		BAYHTRM420A	19.92		1	38	40
		BAYHTRM430A	29.92		2	53	60
		BAYHTRM450A	49.84		2	83	90
	TWE240E4*4	BAYHTRM410A	10		1	26	30
		BAYHTRM420A	19.92		1	41	45
		BAYHTRM430A	29.92		2	56	60
		BAYHTRM450A	49.84		2	86	90
	TWE240EW*3	BAYHTRMW10A	10	575/3/60	1	19	20
		BAYHTRMW20A	19.92		1	32	35
		BAYHTRMW30A	29.92		2	44	45
		BAYHTRMW50A	49.84		2	69	70
	TWE240EW*4	BAYHTRMW10A	10		1	22	25
		BAYHTRMW20A	19.92		1	34	35
		BAYHTRMW30A	29.92		2	47	50
		BAYHTRMW50A	49.84		2	72	80
25	TWE300E3*3	BAYHTRM310A	7.51/10.00	208-230/3/60	1	51/55	60/60
		BAYHTRM320A	14.96/19.92		1	77/85	80/90
		BAYHTRM330A	22.47/29.92		2	103/115	110/125
		BAYHTRM350A	37.44/49.84		2	155/175	175/175
	TWE300E4*3	BAYHTRM410A	10	460/3/60	1	26	30
		BAYHTRM420A	19.92		1	41	45
		BAYHTRM430A	29.92		2	56	60
		BAYHTRM450A	49.84		2	86	90
	TWE300EW*3	BAYHTRMW10A	10	575/3/60	1	22	25
		BAYHTRMW20A	19.92		1	34	35
		BAYHTRMW30A	29.92		2	47	50
		BAYHTRMW50A	49.84		2	72	80

(a) kW ratings are at: 208/240V for 208-230V air handlers.
480V for 460V air handlers
600V for 575V air handlers
For other than rated voltage, capacity = (Voltage/Rated Voltage)^2 x Rated Capacity.
(b) Any power supply and circuits must be wired and protected in accordance with local codes.
(c) The HACR circuit breaker is for U.S.A. installations only.

Jobsite Connections

For Electromechanical Controls

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



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. Dual or manifolded compressor Cooling units are paired with Standard, SZVAV or 2-Speed VFD air handlers. See table below.

TTA073D/TWE090D	TTA120F/TWE120D	TTA240E/TWE240E
TTA090D/TWE090D	TTA150E/TWE150E	TTA240F/TWE240E[(a)]
TTA090D/TWE120D	TTA180E/TWE180E	TTA300F/TWE300E[(a)]
TTA120D/TWE120D	TTA180F/TWE180E[(a)]	
TTA120E/TWE120E	TTA180E/TWE240E	

(a) Need to manifold the dual circuit indoor unit when connecting to a Manifolded outdoor unit.

Field Wiring:

A. 3 power wires. Line voltage for 3 phase (2 wires for single phase)

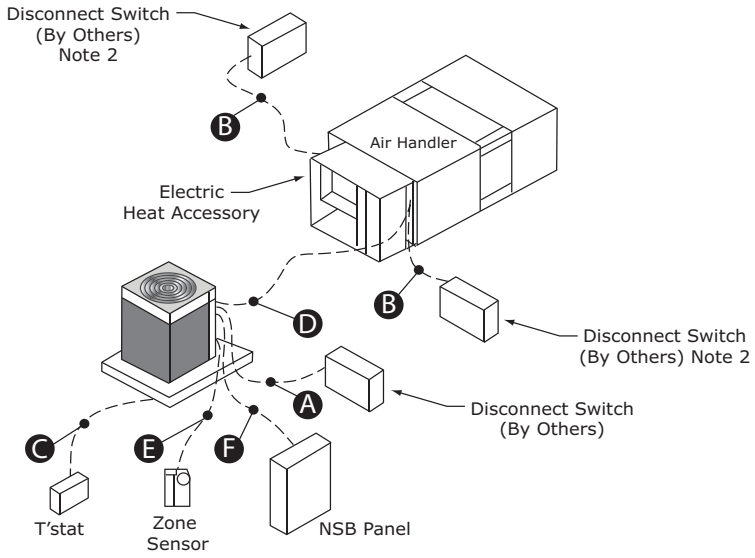
B. 3 power wires. Line voltage for 3 phase (2 wires for single phase)

C. **Cooling only thermostat**: 3 to 7 wires depending on stages of electric heat

D. 3 to 7 wires depending on type of outdoor unit(s)

For 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.
3. Cooling units are paired with Standard or SZVAV air handlers. See table below.

TTA073D/TWE090D	TTA120F/TWE120D	TTA240E/TWE240E
TTA090D/TWE090D	TTA150E/TWE150E	TTA240F/TWE240E(a)
TTA090D/TWE120D	TTA180E/TWE180E	TTA300F/TWE300E(a)
TTA120D/TWE120D	TTA180F/TWE180E(a)	
TTA120E/TWE120E	TTA180E/TWE240E	

(a) Need to manifold the dual circuit indoor unit when connecting to a manifolded outdoor unit.

Field Wiring:

A. 3 power wires, line voltage for 3 phase, (2 power wires for single phase)

B. 3 power wires, line voltage for 3 phase, (2 power wires for single phase)

C. **Cooling only thermostat**: 3 to 7 wires depending on stages of electric heat

D. 3 to 7 wires depending on type of outdoor unit(s)

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.

E. **Zone Sensor**: 4 to 10 wires depending on zone sensor model [1]

F. **Night Setback Panel**: 7 wires

[1] See Zone Sensor wiring instructions for wiring information (ReliaTel Controls only).

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Typical Wiring

Figure 19. Typical Single & Dual Compressor - Electromechanical Connection Diagram

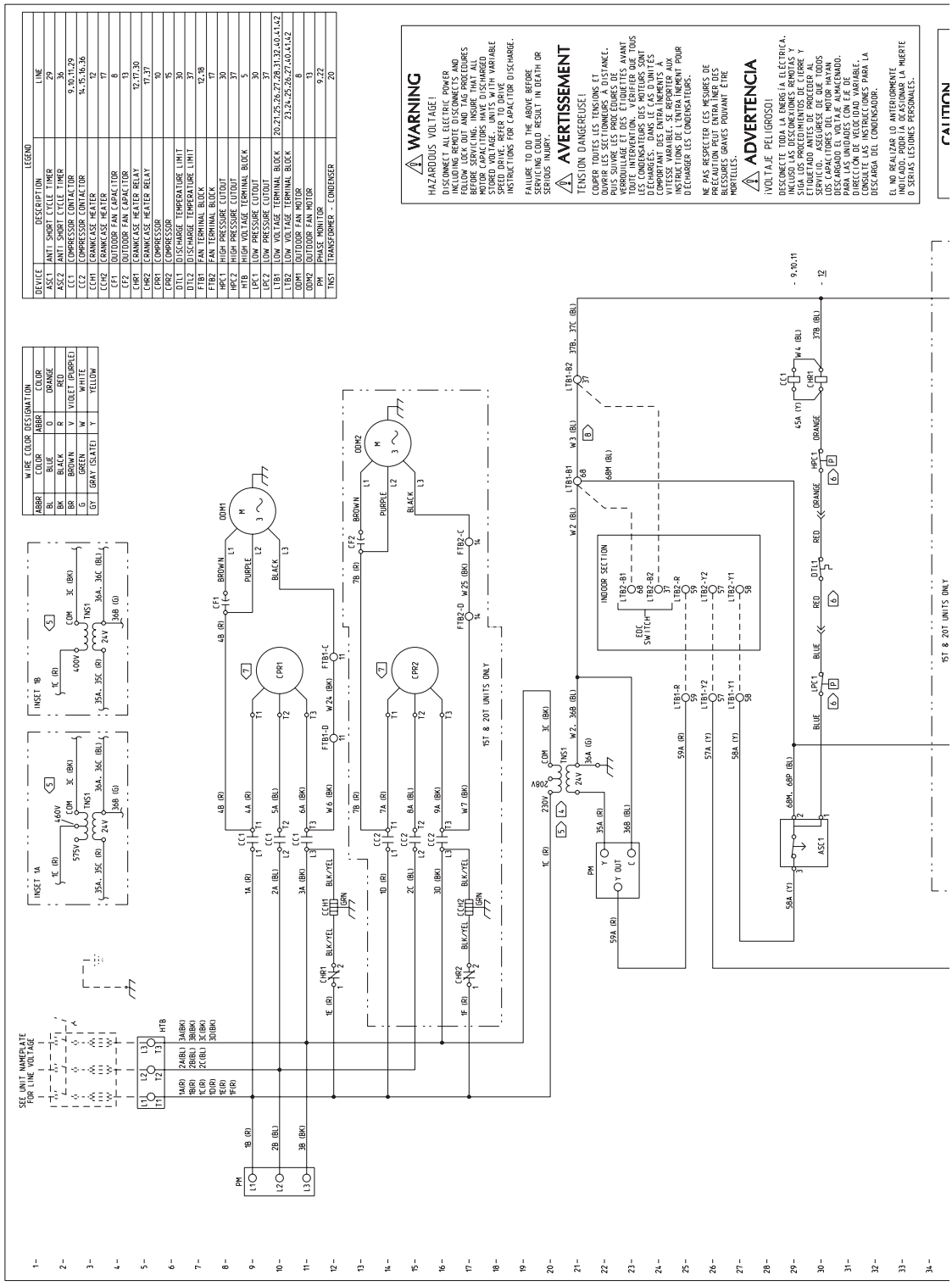


Figure 19. (continued from previous page) Typical Single & Dual Compressor - Electromechanical Connection Diagram

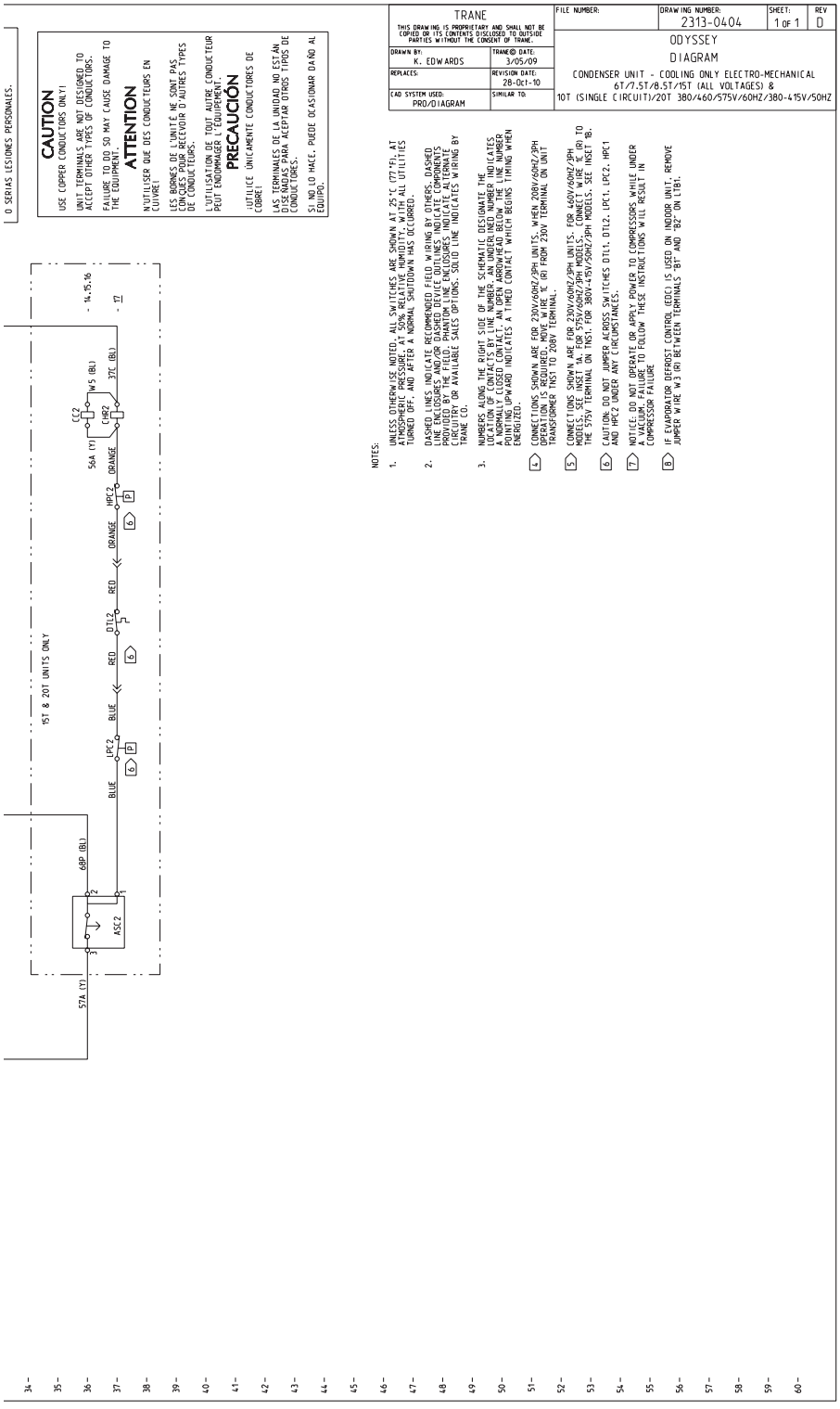
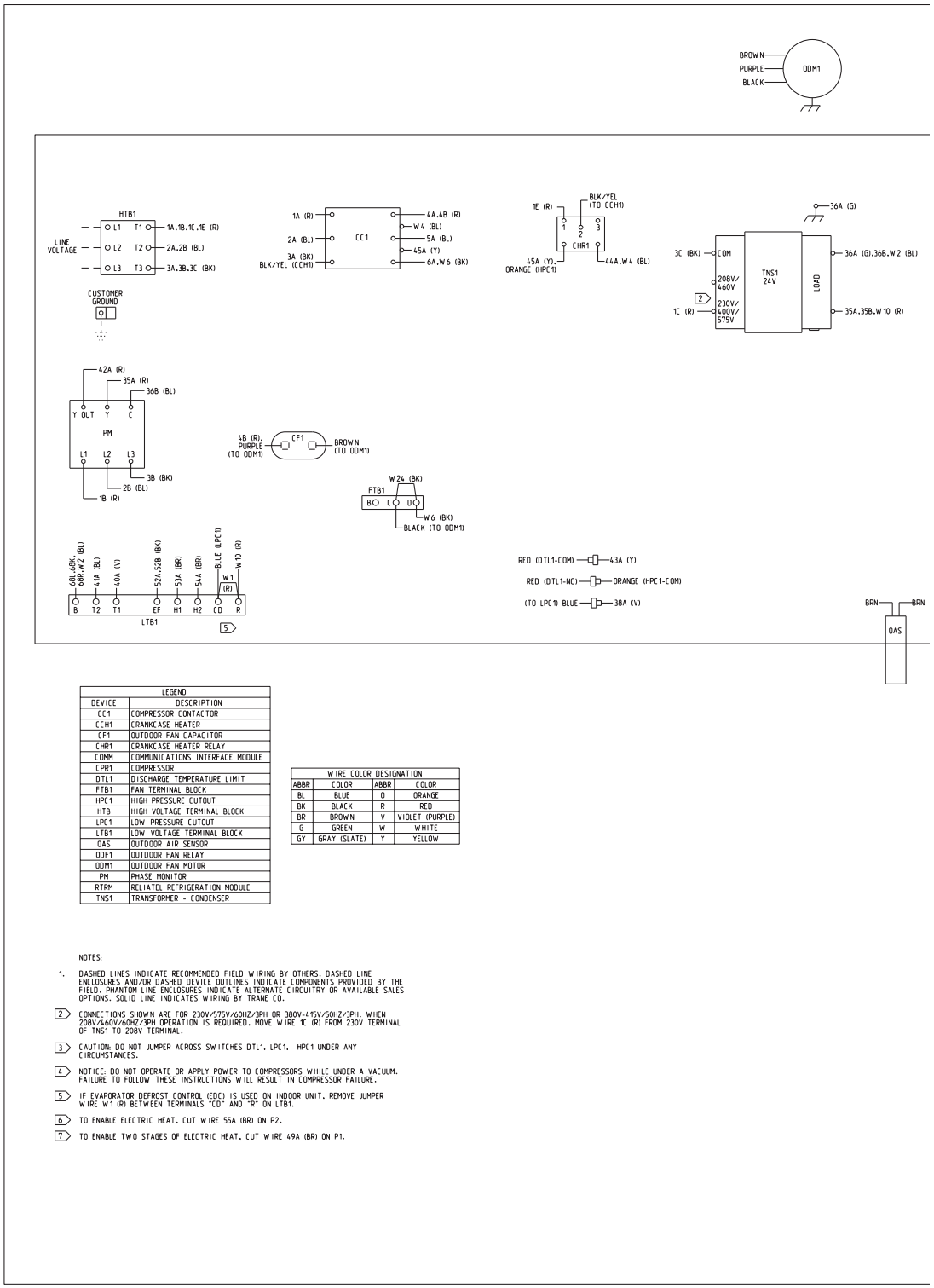


Figure 20. Typical Single Compressor - Connection Diagram



LEGEND	
DEVICE	DESCRIPTION
CC1	COMPRESSOR CONTACTOR
CCH1	CRANKCASE HEATER
CF1	OUTDOOR FAN CAPACITOR
CHR1	CRANKCASE HEATER RELAY
COMM	COMMUNICATIONS INTERFACE MODULE
CPR1	COMPRESSOR
DTL1	DISCHARGE TEMPERATURE LIMIT
FTB1	FAN TERMINAL BLOCK
HPC1	HIGH PRESSURE CUTOUT
HTB	HIGH VOLTAGE TERMINAL BLOCK
LPC1	LOW PRESSURE CUTOUT
LTB1	LOW VOLTAGE TERMINAL BLOCK
OAS	OUTDOOR AIR SENSOR
ODF1	OUTDOOR FAN RELAY
ODM1	OUTDOOR FAN MOTOR
PM	PHASE MONITOR
RTRM	RELIATEL REFRIGERATION MODULE
TNS1	TRANSFORMER - CONDENSER

WIRE COLOR DESIGNATION			
ABBR	COLOR	ABBR	COLOR
BL	BLUE	O	ORANGE
BK	BLACK	R	RED
BR	BROWN	V	VIOLET (PURPLE)
G	GREEN	W	WHITE
GY	GRAY (SLATE)	Y	YELLOW

NOTES:

1. DASHED LINES INDICATE RECOMMENDED FIELD WIRING BY OTHERS. DASHED LINE ENCLOSURES AND/OR DASHED DEVICE OUTLINES INDICATE COMPONENTS PROVIDED BY THE FIELD. PHANTOM LINE ENCLOSURES INDICATE ALTERNATE CIRCUITRY OR AVAILABLE SALES OPTIONS. SOLID LINE INDICATES WIRING BY TRANE CO.

2. CONNECTIONS SHOWN ARE FOR 230V/575V/60HZ/3PH OR 380V-415V/50HZ/3PH. WHEN 208V/460V/60HZ/3PH OPERATION IS REQUIRED, MOVE WIRE 1C (R) FROM 230V TERMINAL OF TNS1 TO 208V TERMINAL.

3. CAUTION: DO NOT JUMPER ACROSS SWITCHES DTL1, LPC1, HPC1 UNDER ANY CIRCUMSTANCES.

4. NOTICE: DO NOT OPERATE OR APPLY POWER TO COMPRESSORS WHILE UNDER A VACUUM. FAILURE TO FOLLOW THESE INSTRUCTIONS WILL RESULT IN COMPRESSOR FAILURE.

5. IF EVAPORATOR DEFROST CONTROL (EDC) IS USED ON INDOOR UNIT, REMOVE JUMPER WIRE W1 (R) BETWEEN TERMINALS "CD" AND "R" ON LTB1.

6. TO ENABLE ELECTRIC HEAT, CUT WIRE 55A (BR) ON P2.

7. TO ENABLE TWO STAGES OF ELECTRIC HEAT, CUT WIRE 49A (BR) ON P1.

Figure 20. (continued from previous page) Typical Single Compressor - Connection Diagram

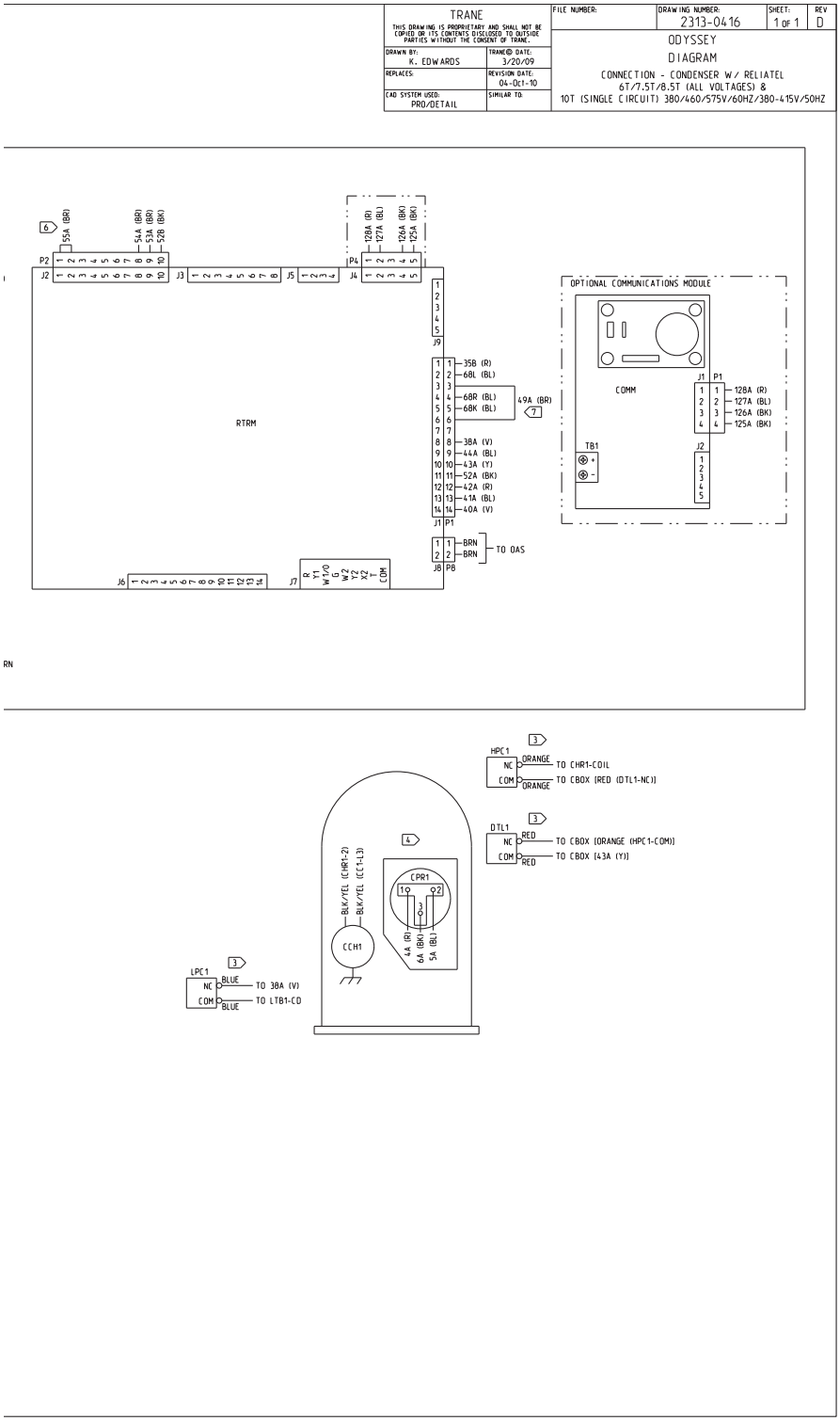


Figure 21. Typical Dual Compressor - Connection Diagram

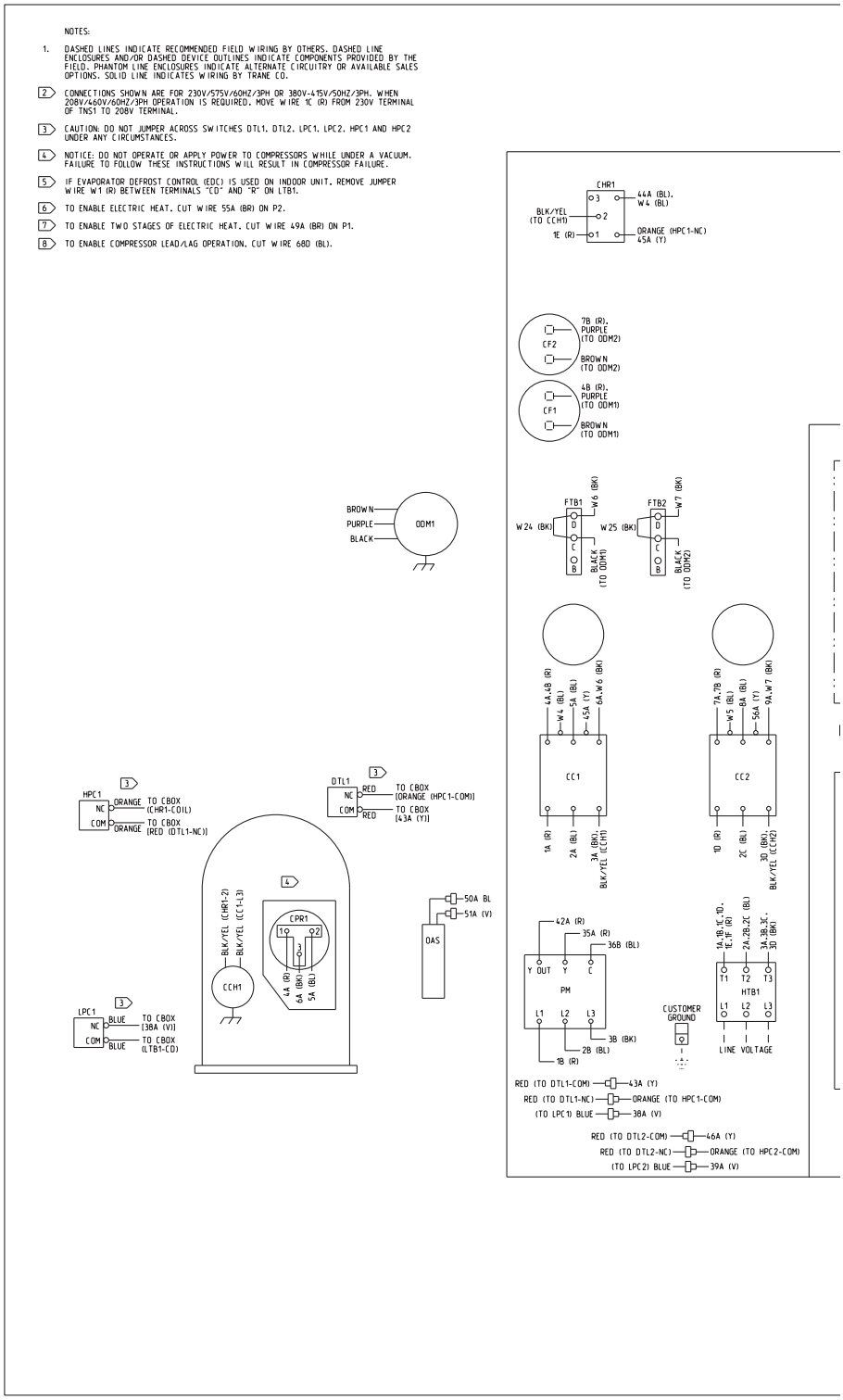


Figure 21. (continued from previous page) Typical Dual Compressor - Connection Diagram

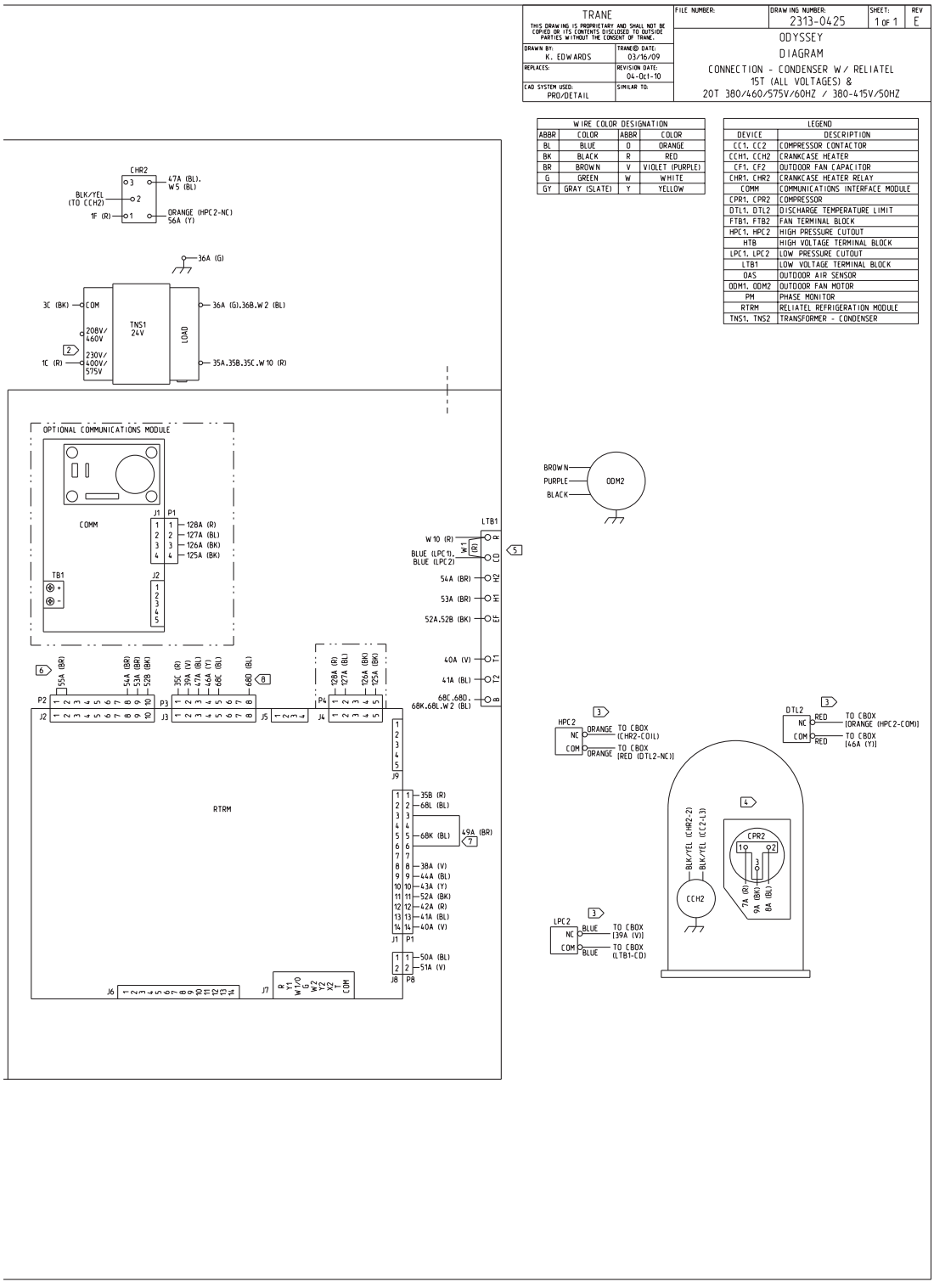


Figure 22. Typical Power/Control Diagram (Single and Dual Compressor)

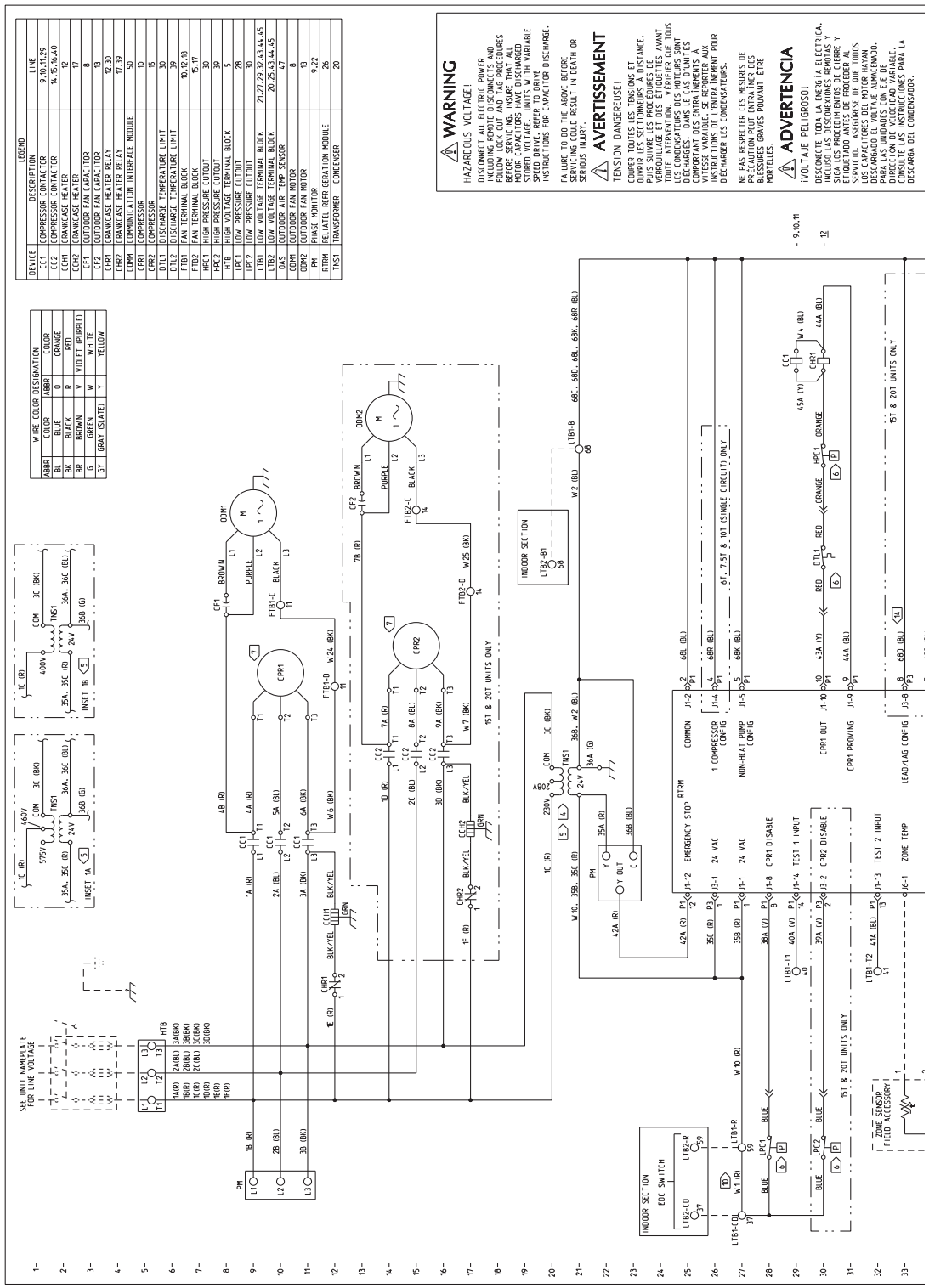


Figure 22. (continued from previous page) Typical Power/Control Diagram (Single and Dual Compressor)

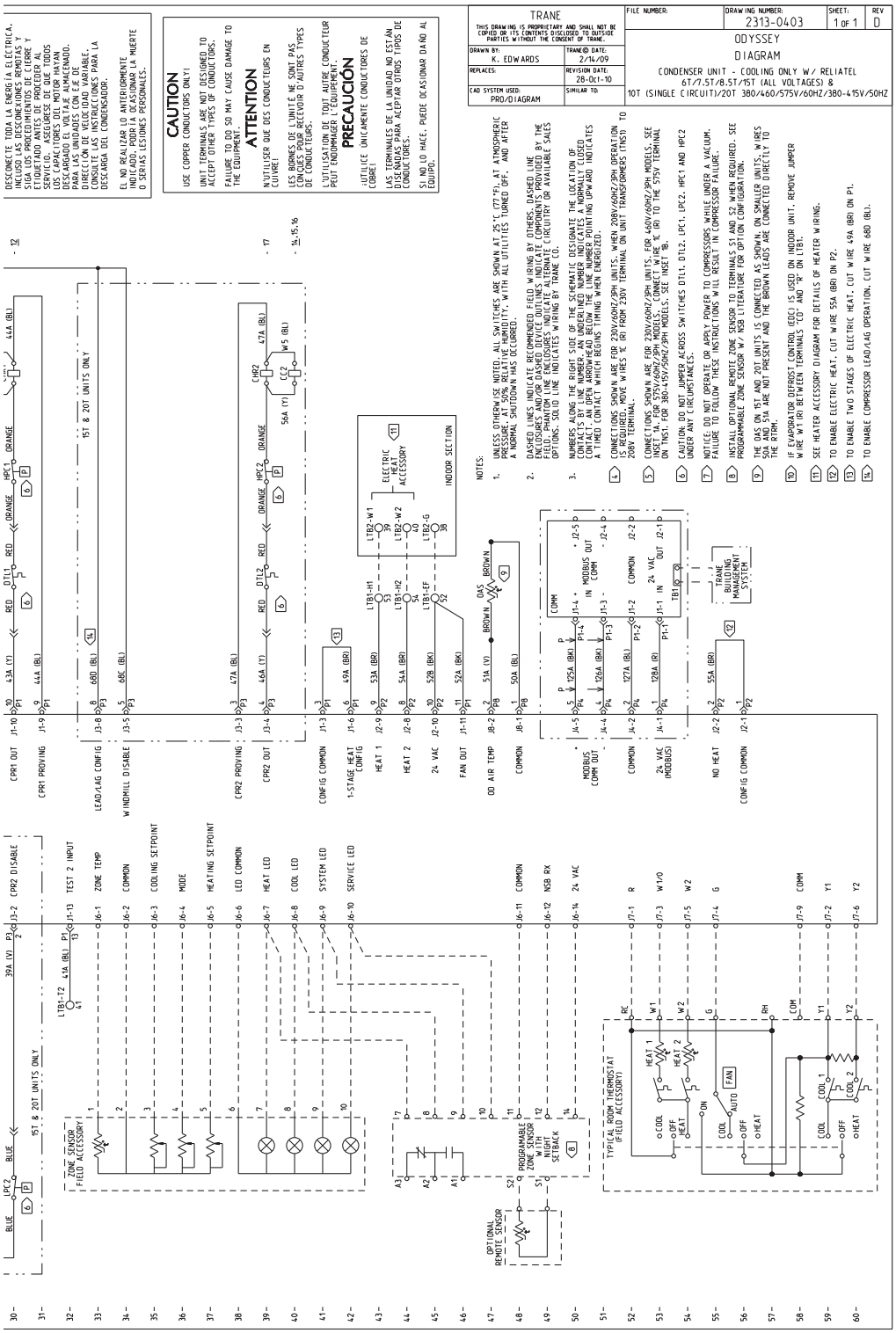


Figure 23. Typical Standard Air Handler Power/Control and Connection Diagram

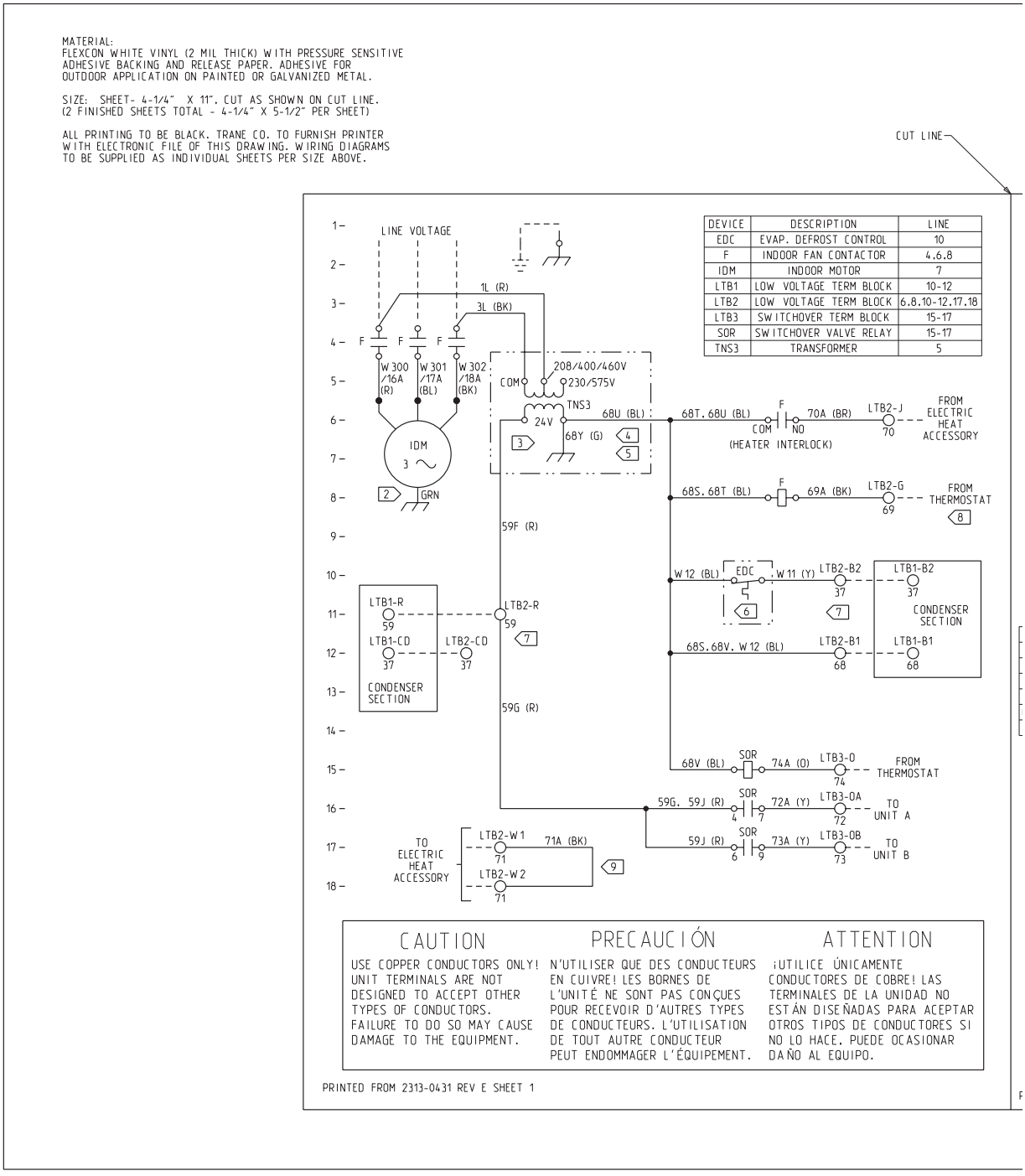
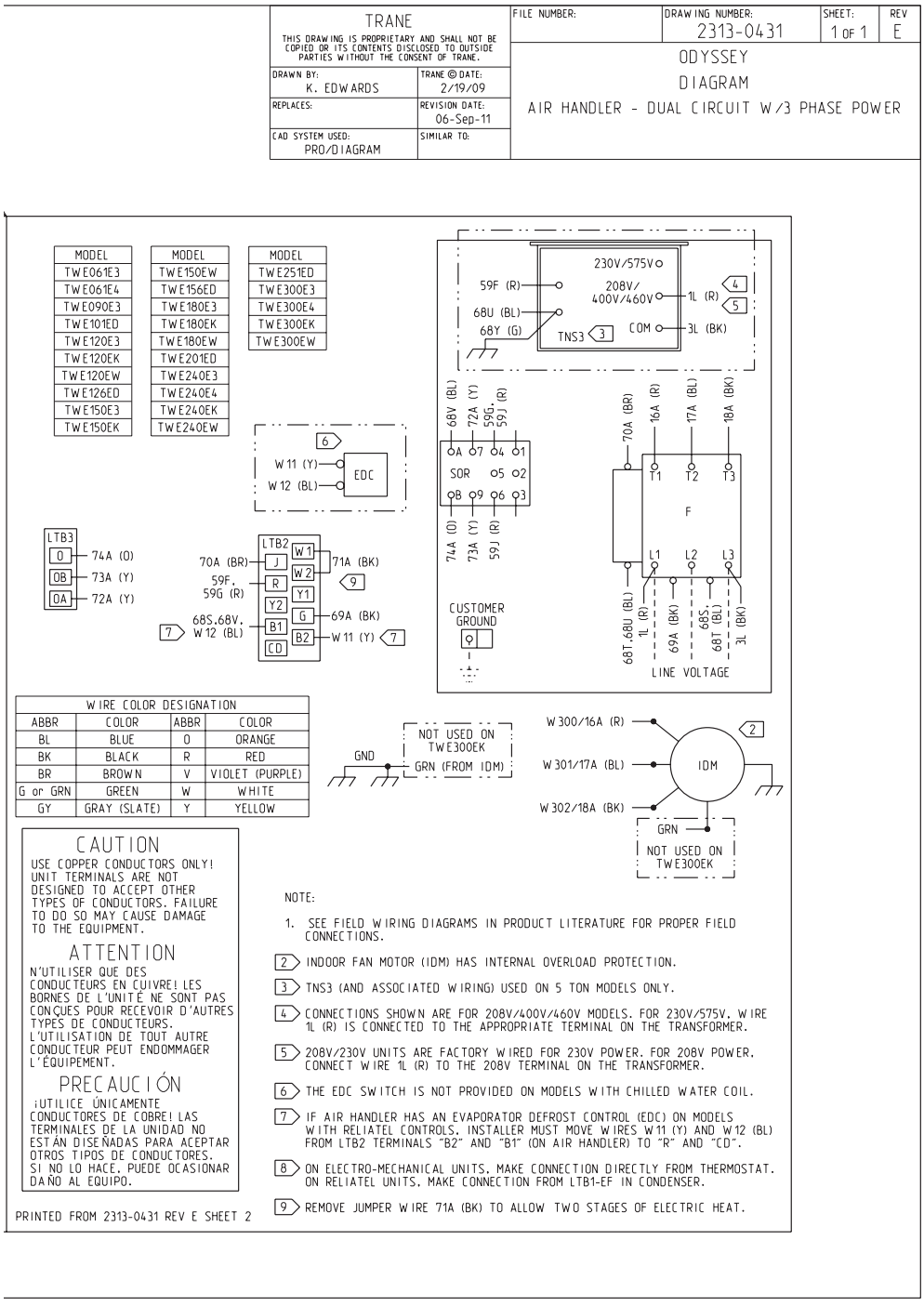


Figure 23. (continued from previous page) Typical Air Handler Power/Control and Connection Diagram



Dimensional Data

Figure 24. 6-7 1/2 Ton Condensing Unit, Single Compressor

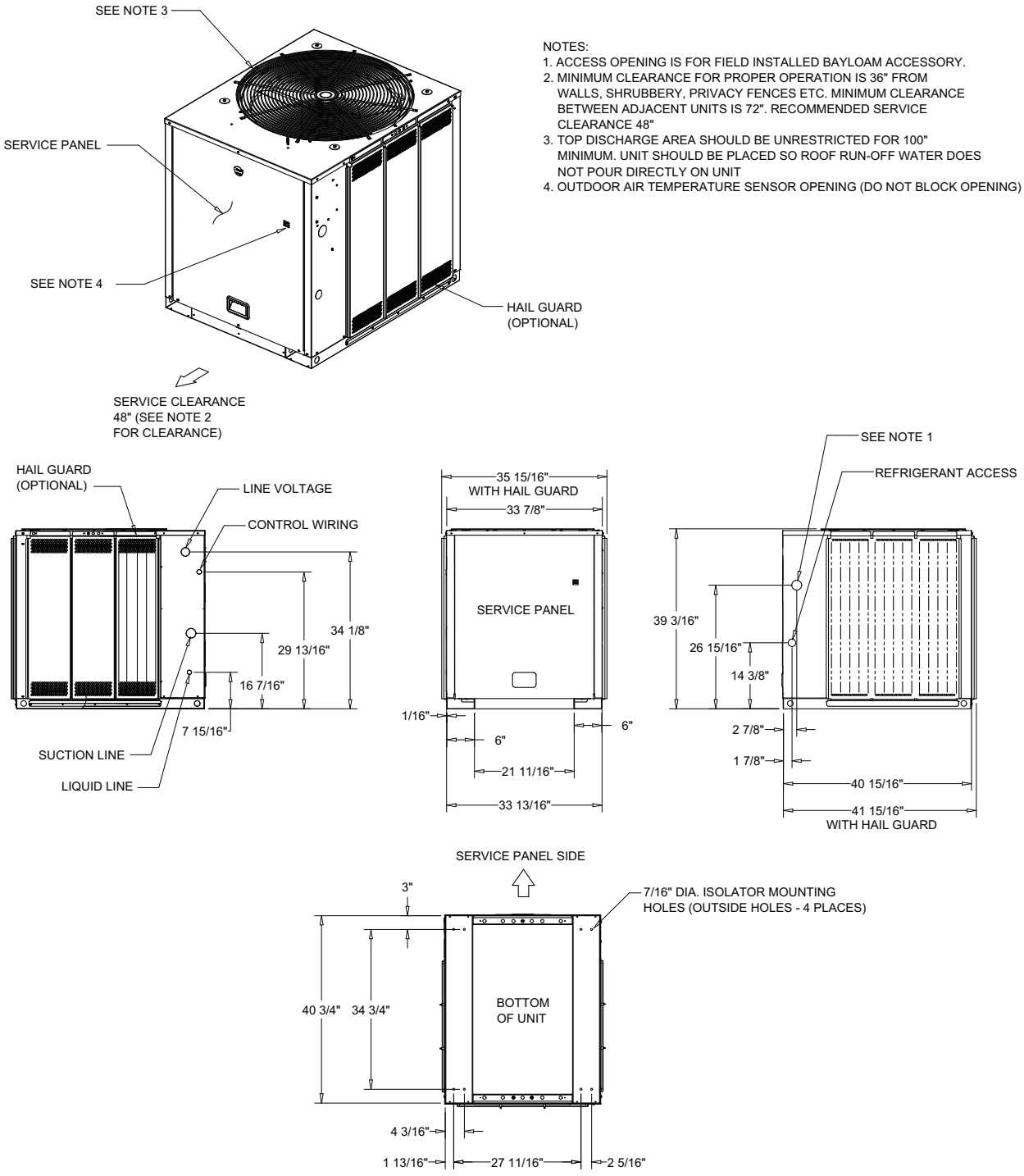


Figure 25. 10 Ton Condensing Unit, Single Compressor

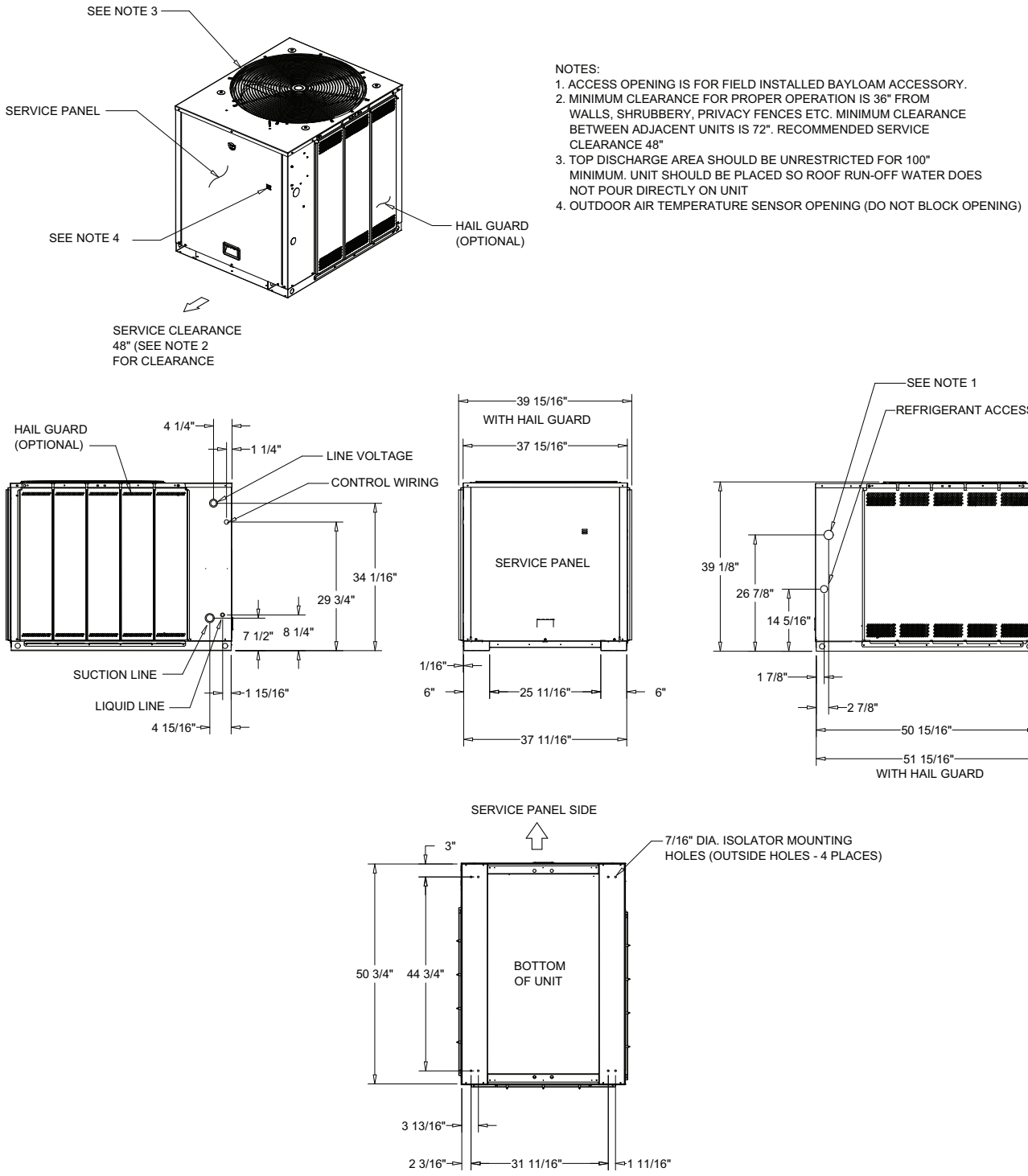


Figure 26. 10 Ton Condensing Unit, Dual Compressor

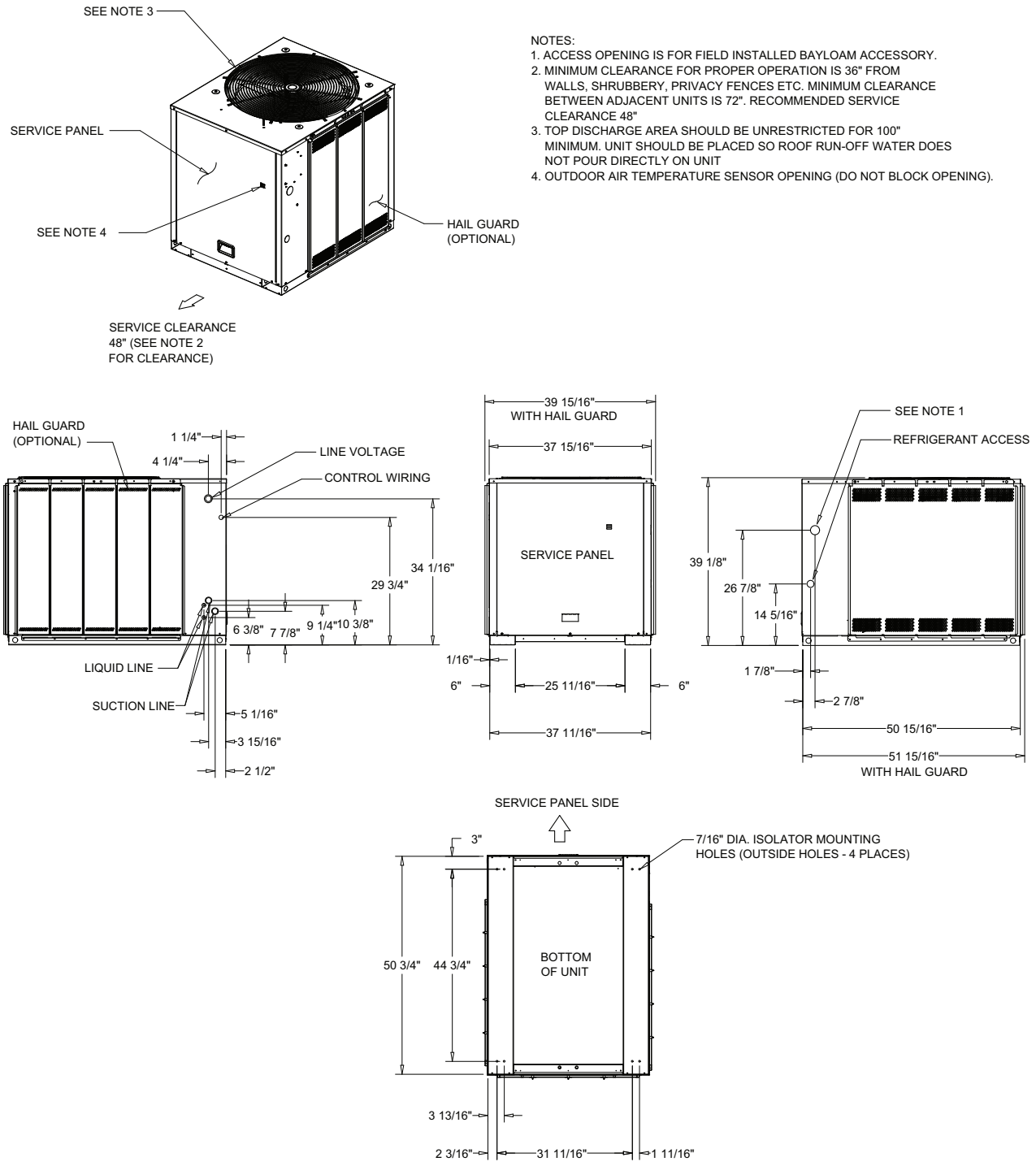
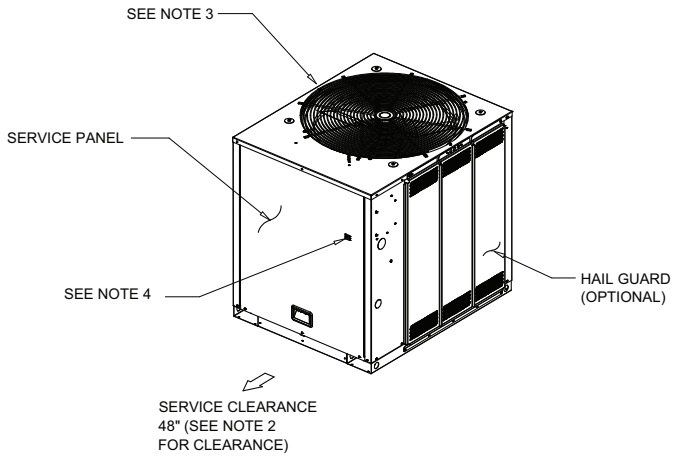
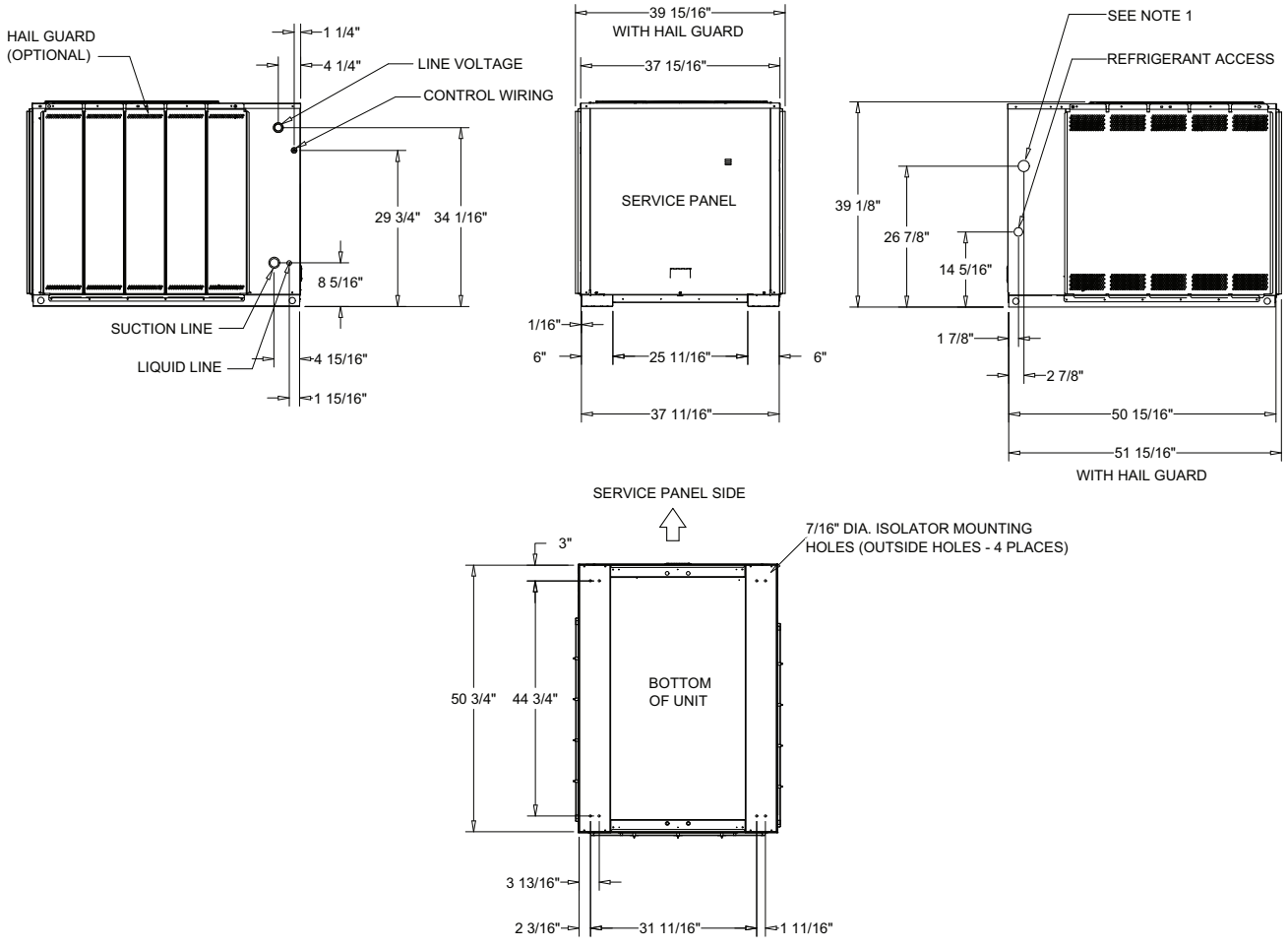


Figure 27. 10 Ton Condensing Unit, Manifolded Compressor

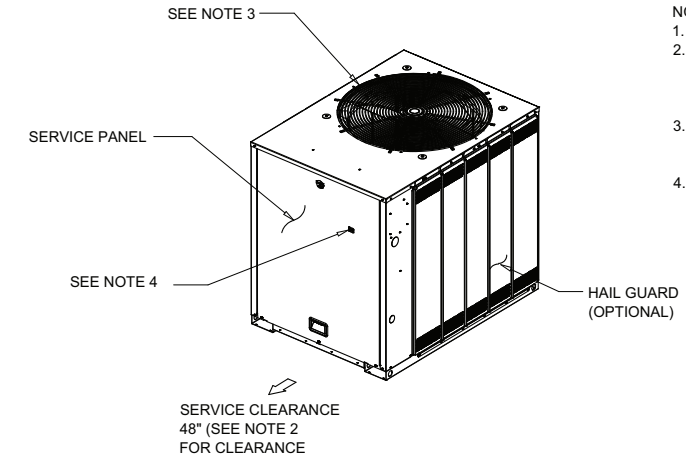


NOTES:
1. ACCESS OPENING IS FOR FIELD INSTALLED BAYLOAM ACCESSORY.
2. MINIMUM CLEARANCE FOR PROPER OPERATION IS 36" FROM WALLS, SHRUBBERY, PRIVACY FENCES ETC. MINIMUM CLEARANCE BETWEEN ADJACENT UNITS IS 72". RECOMMENDED SERVICE CLEARANCE 48"
3. TOP DISCHARGE AREA SHOULD BE UNRESTRICTED FOR 100" MINIMUM.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



Dimensional Data

Figure 28. 12½ Ton Condensing Unit, Dual Compressor



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

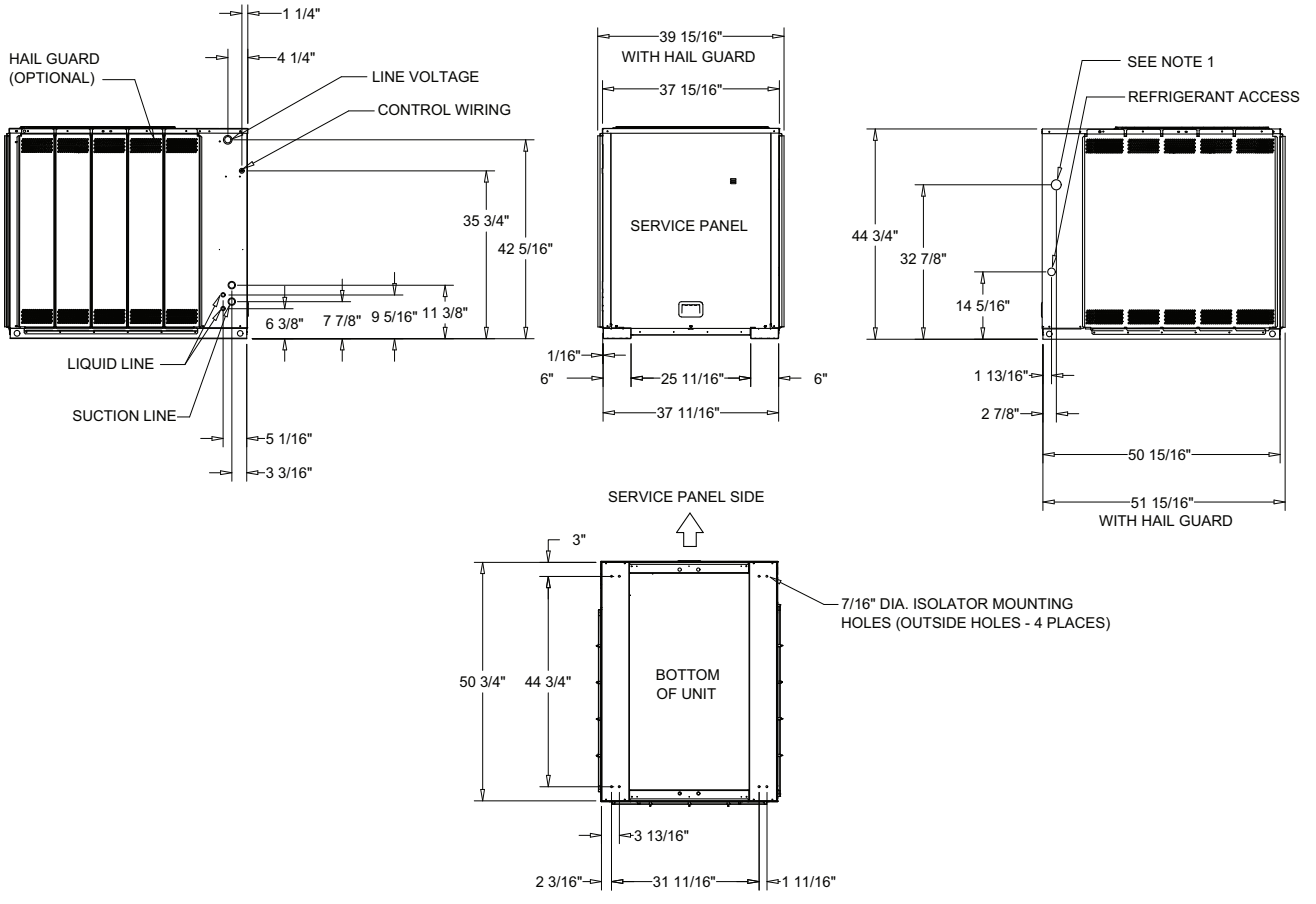
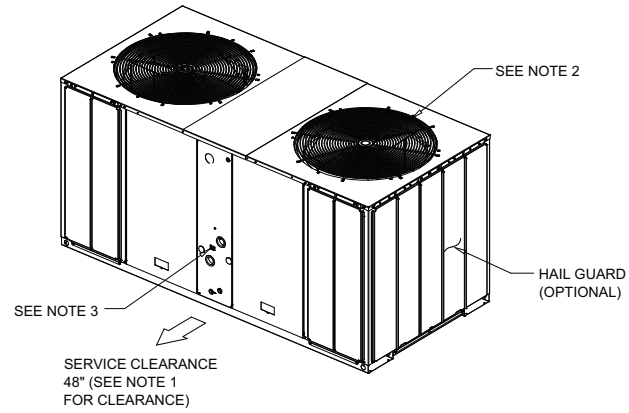
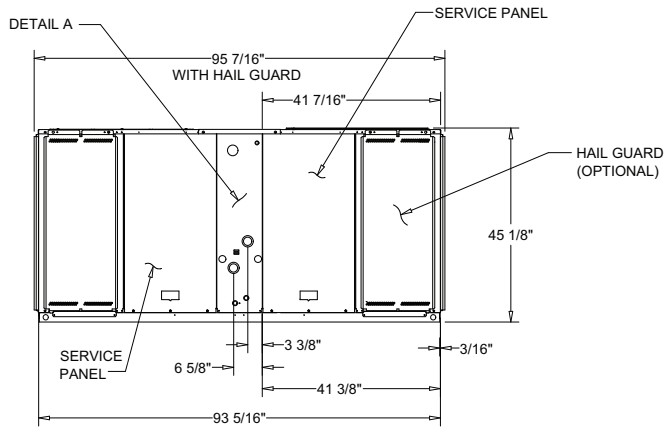
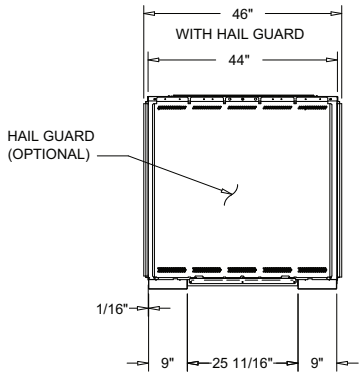


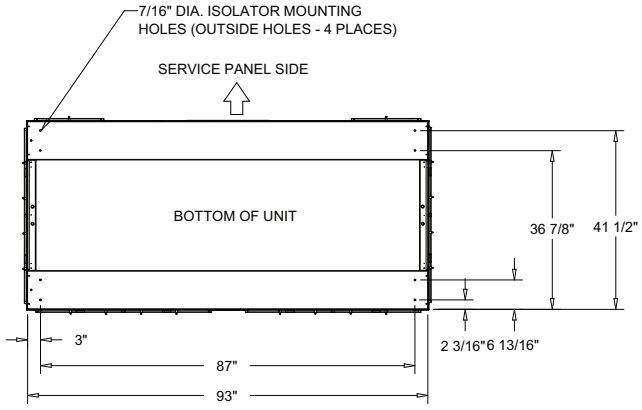
Figure 29. 15-20 Ton Condensing Unit, Dual Compressor

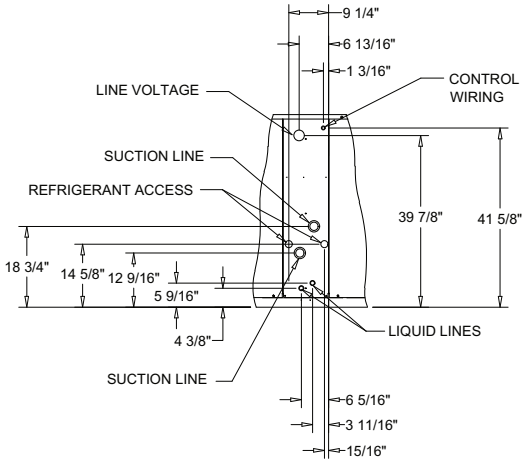


NOTES:
1. MINIMUM CLEARANCE FOR PROPER OPERATION IS 36" FROM WALLS, SHRUBBERY, PRIVACY FENCES ETC. MINIMUM CLEARANCE BETWEEN ADJACENT UNITS IS 72". RECOMMENDED SERVICE CLEARANCE 48"
2. TOP DISCHARGE AREA SHOULD BE UNRESTRICTED FOR 100" MINIMUM. UNIT SHOULD BE PLACED SO ROOF RUN-OFF WATER DOES NOT POUR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





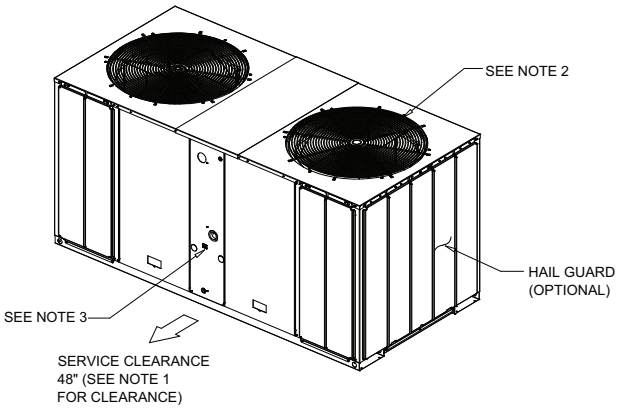




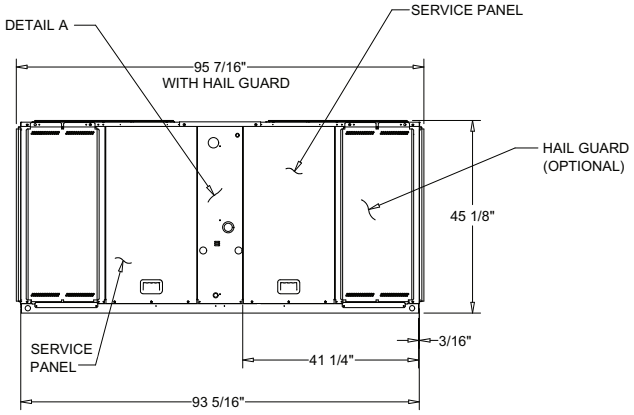
FRONT DETAIL A
DIMENSIONAL DETAIL

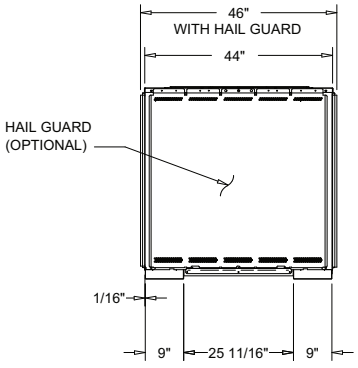
Dimensional Data

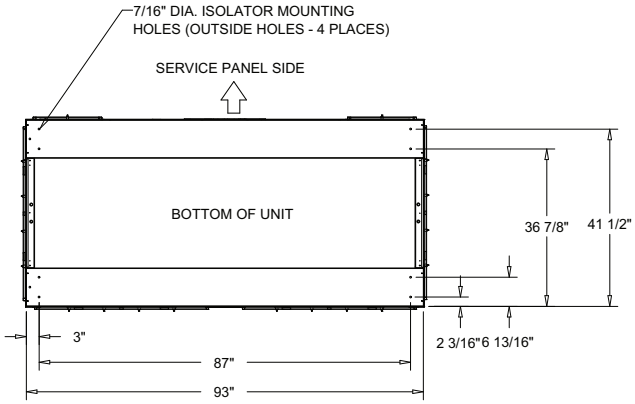
Figure 30. 15-20 Ton Condensing Unit, Manifolded Compressor

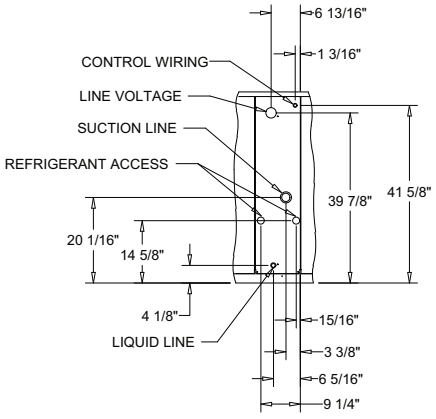


NOTES:
1. MINIMUM CLEARANCE FOR PROPER OPERATION IS 36" FROM WALLS, SHRUBBERY, PRIVACY FENCES ETC. MINIMUM CLEARANCE BETWEEN ADJACENT UNITS IS 72". RECOMMENDED SERVICE CLEARANCE 48"
2. TOP DISCHARGE AREA SHOULD BE UNRESTRICTED FOR 100" MINIMUM. UNIT SHOULD BE PLACED SO ROOF RUN-OFF WATER DOES NOT POUR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



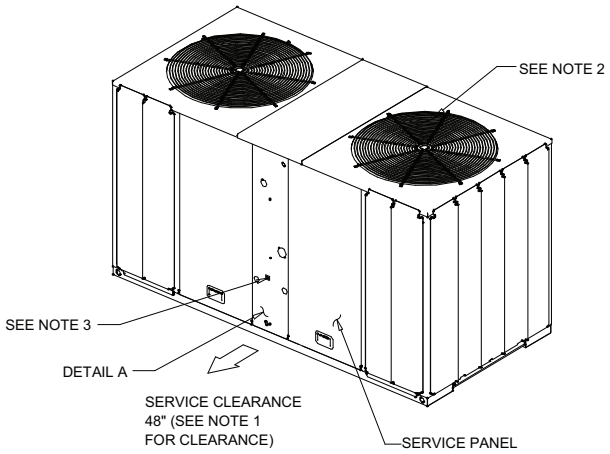




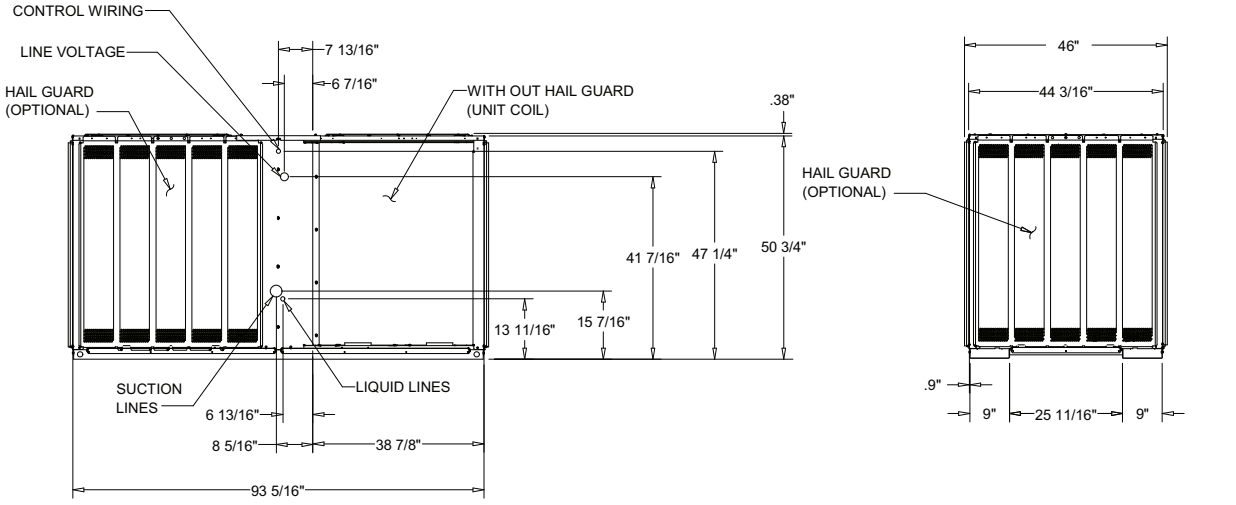


FRONT DETAIL A
DIMENSIONAL DETAIL

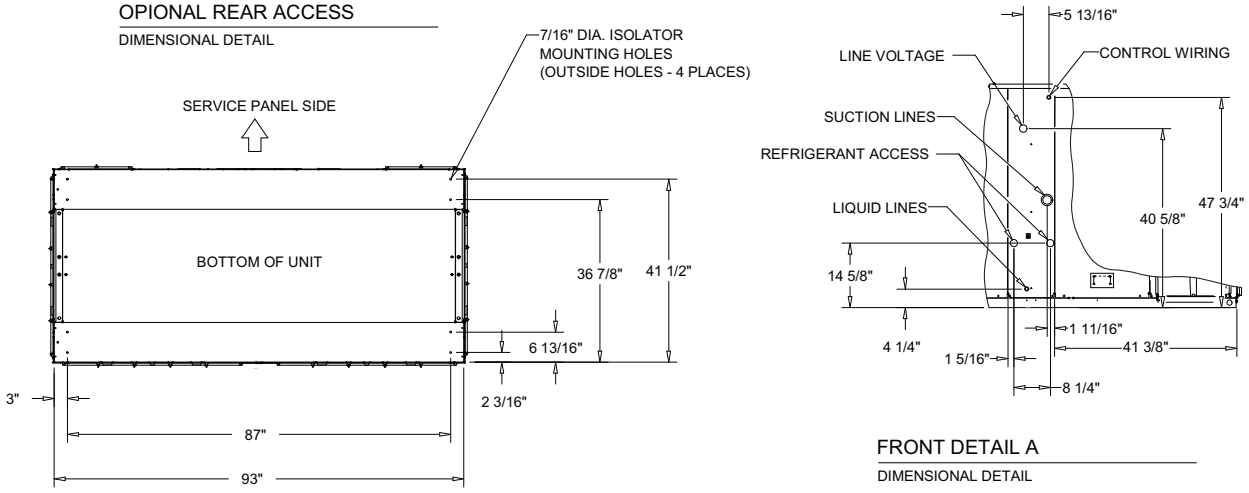
Figure 31. 25 Ton Condensing Unit, Manifolded Compressor



NOTES:
1. MINIMUM CLEARANCE FOR PROPER OPERATION IS 36" FROM WALLS, SHRUBBERY, PRIVACY FENCES ETC. MINIMUM CLEARANCE BETWEEN ADJACENT UNITS IS 72". RECOMMENDED SERVICE CLEARANCE 48"
2. TOP DISCHARGE AREA SHOULD BE UNRESTRICTED FOR 100" 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).



OPIONAL REAR ACCESS
DIMENSIONAL DETAIL



FRONT DETAIL A
DIMENSIONAL DETAIL

25 TON HEAT PUMP CONDENSER
DIMENSIONAL DRAWING

Figure 32. 5 Ton Air Handler, Single Circuit

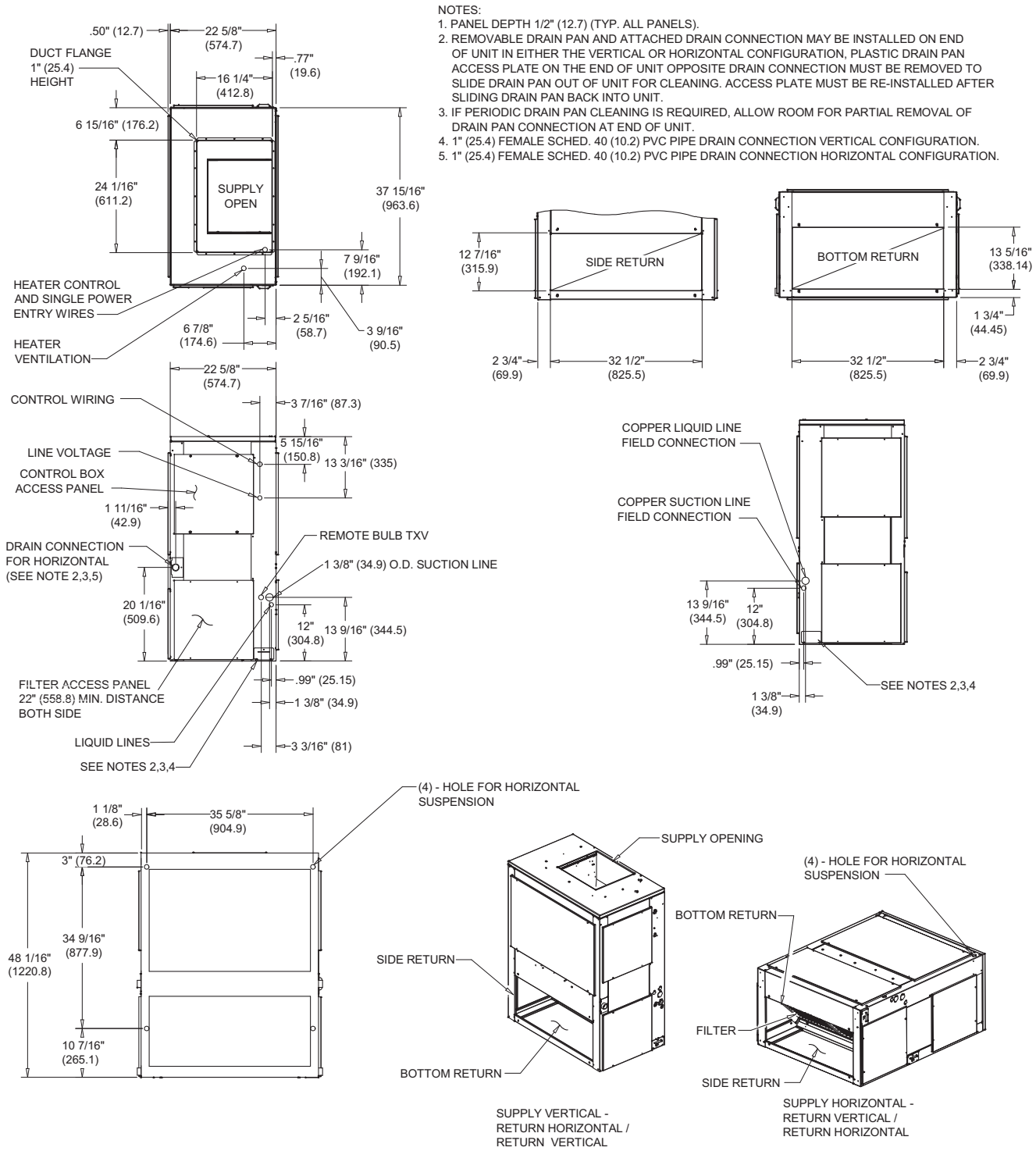


Figure 33. 5 Ton Air Handler, Dual Circuit

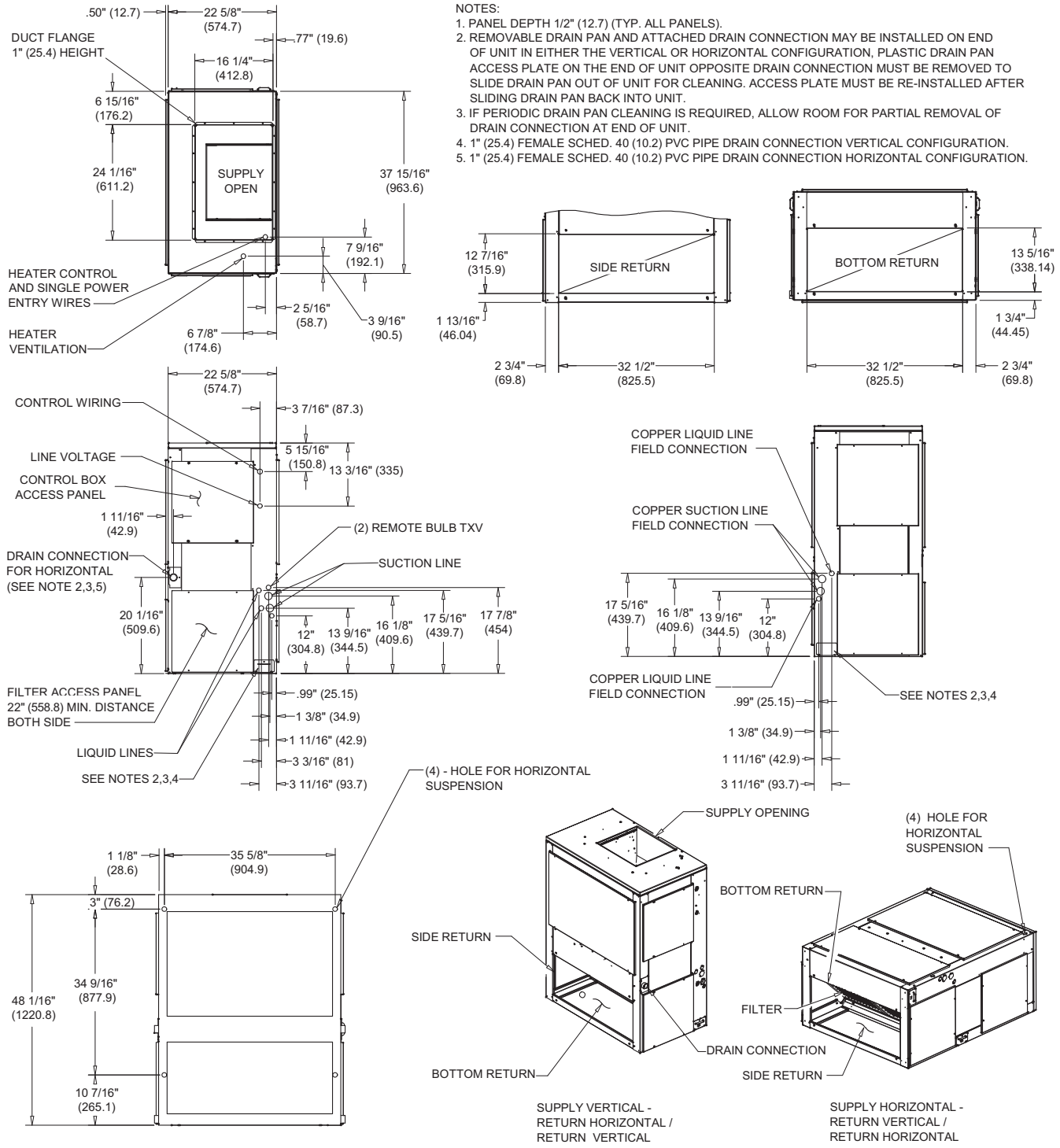


Figure 34. 7 1/2 Ton Air Handler, Single Circuit

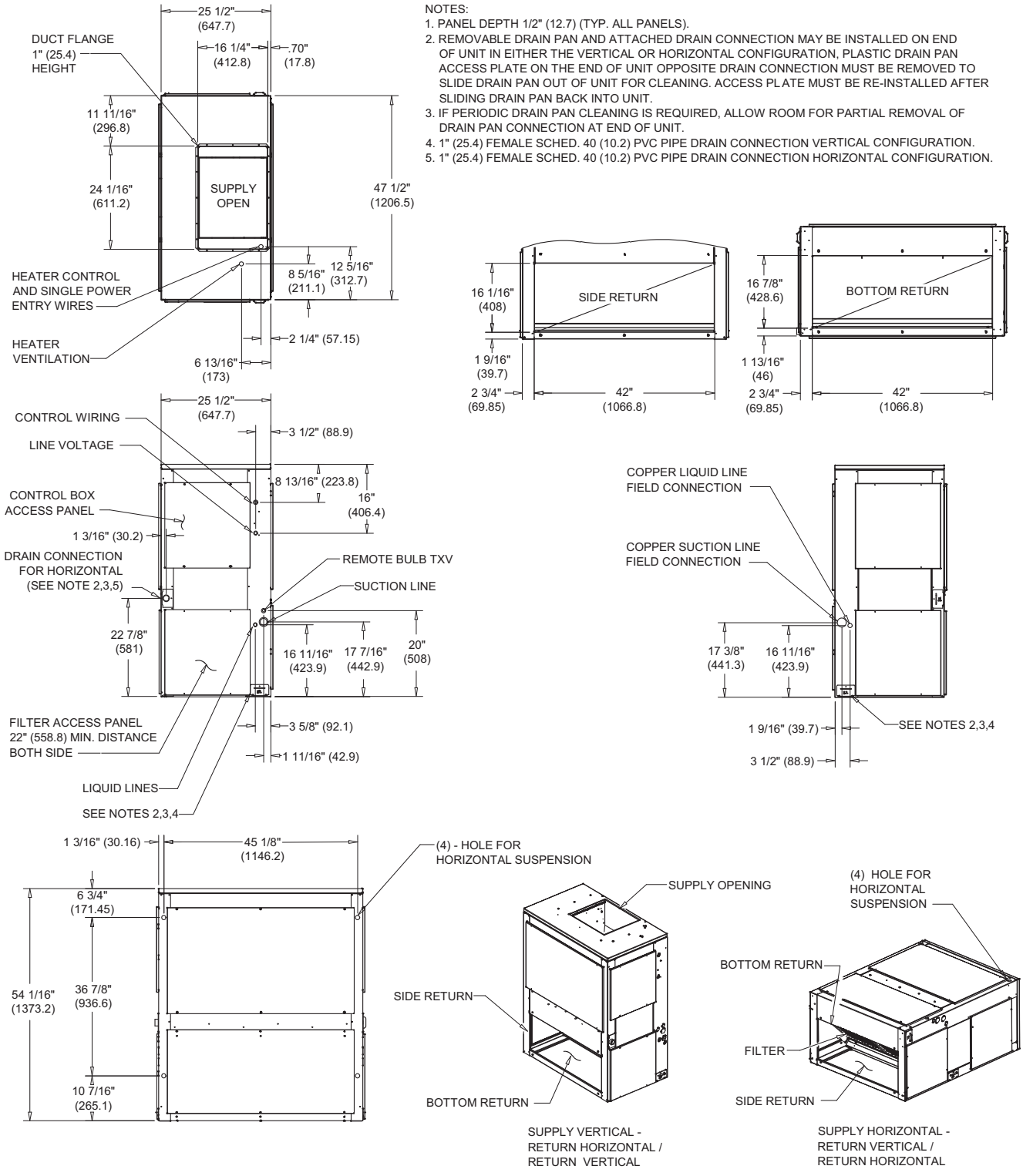


Figure 35. 7 1/2 Ton Air Handler, Dual Circuit

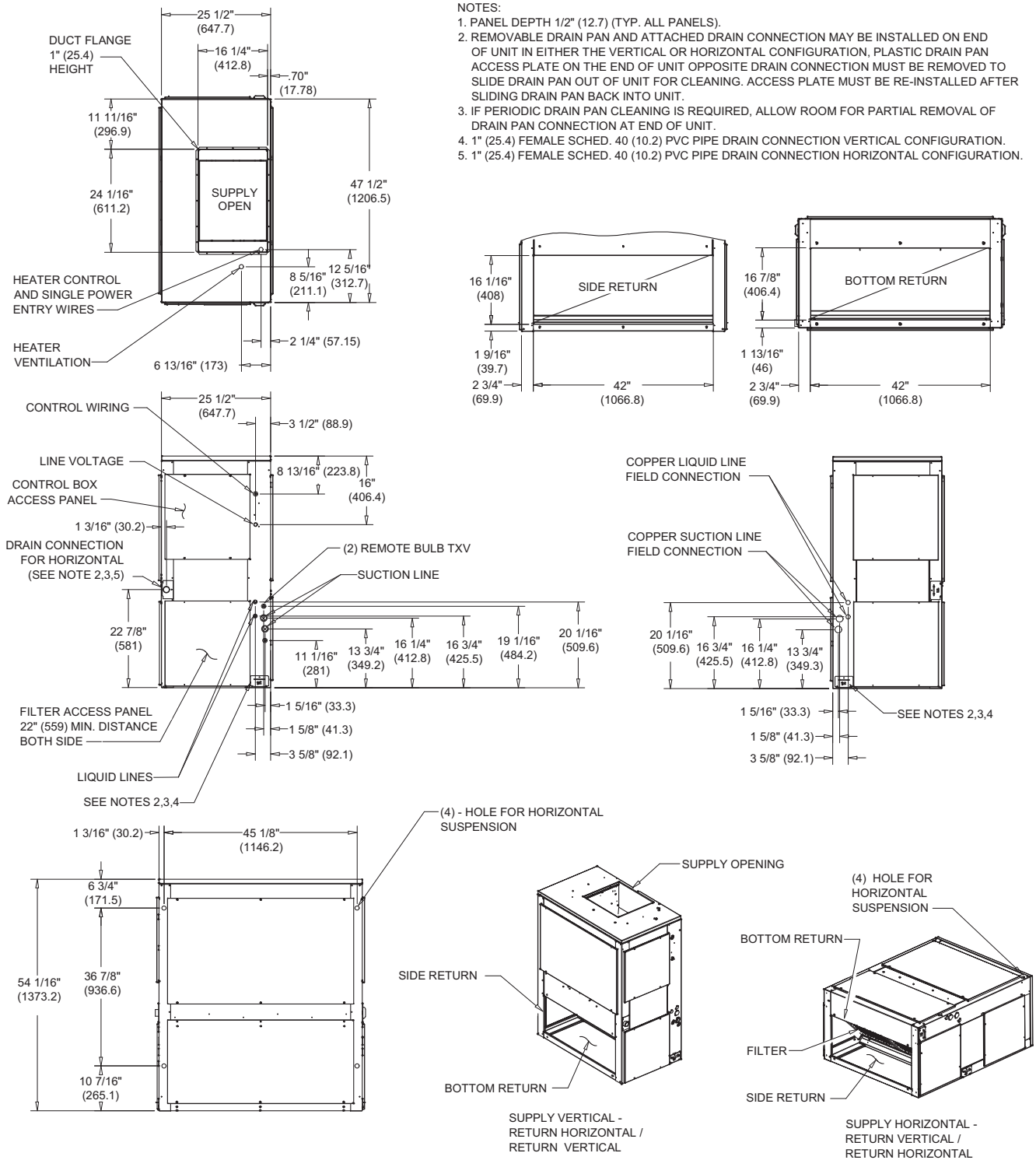


Figure 36. 10 Ton Air Handler, Single Circuit

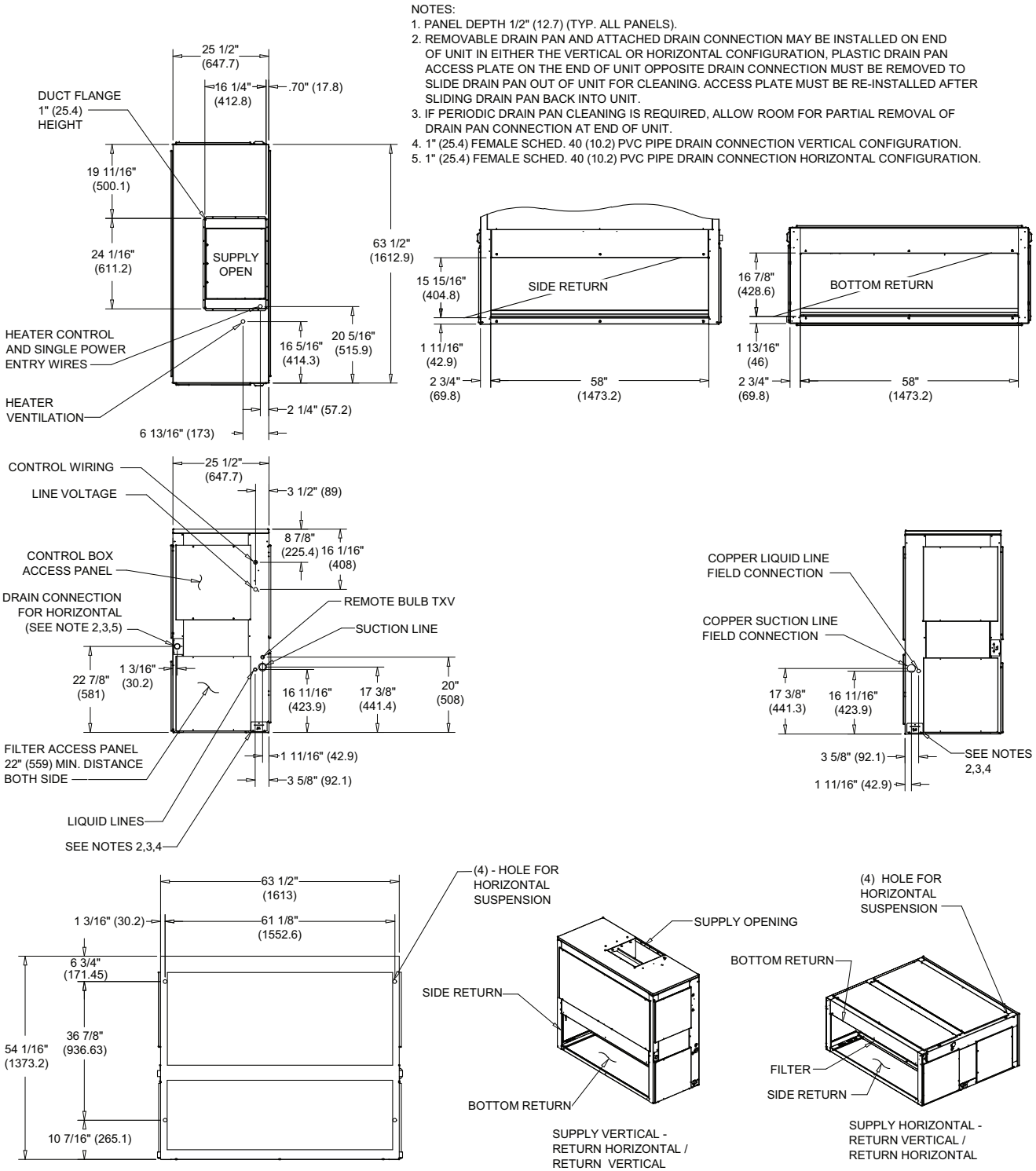


Figure 37. 10 Ton Air Handler, Dual Circuit

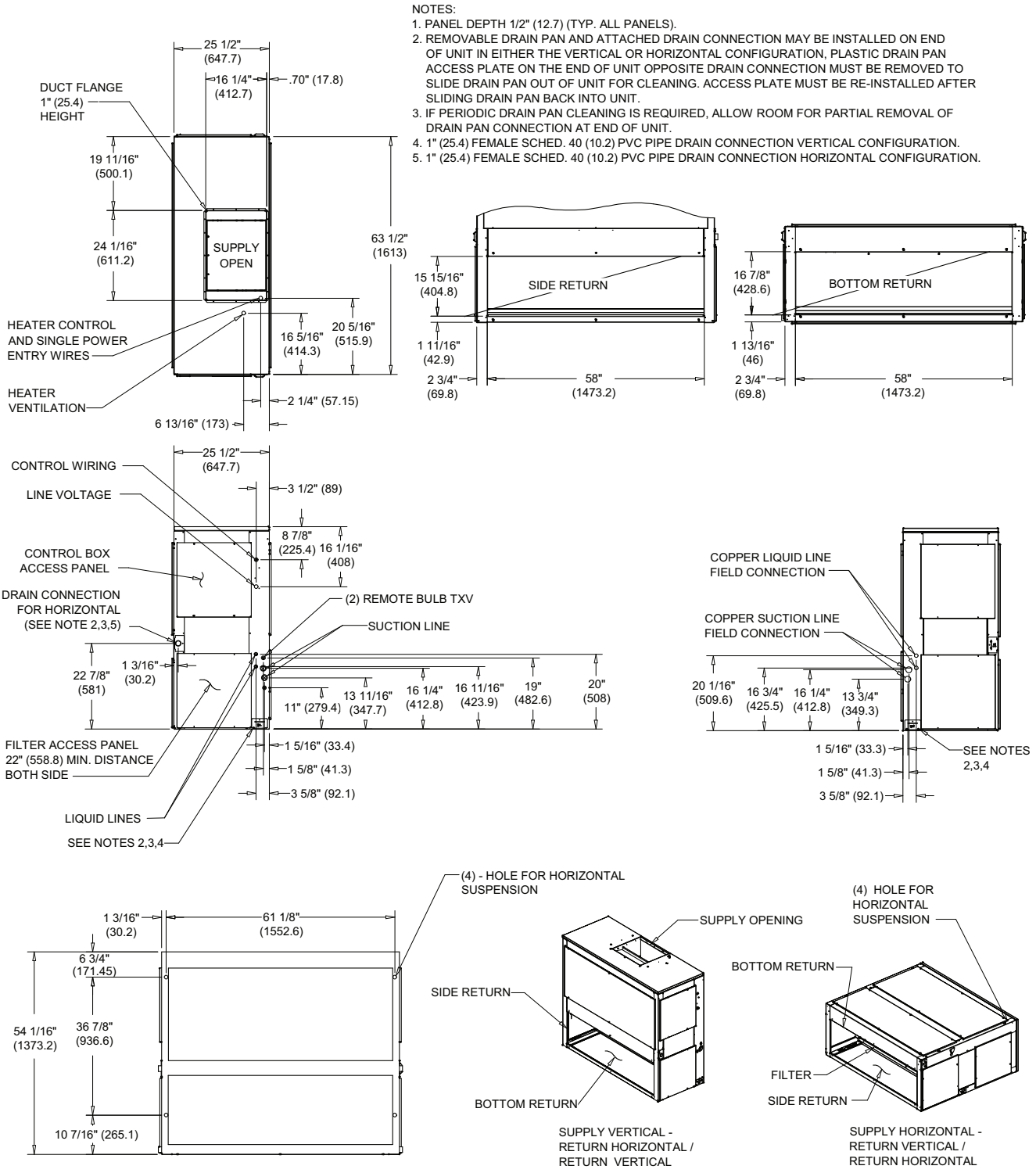


Figure 38. 12½ -15 Ton Air Handler, Dual Circuit

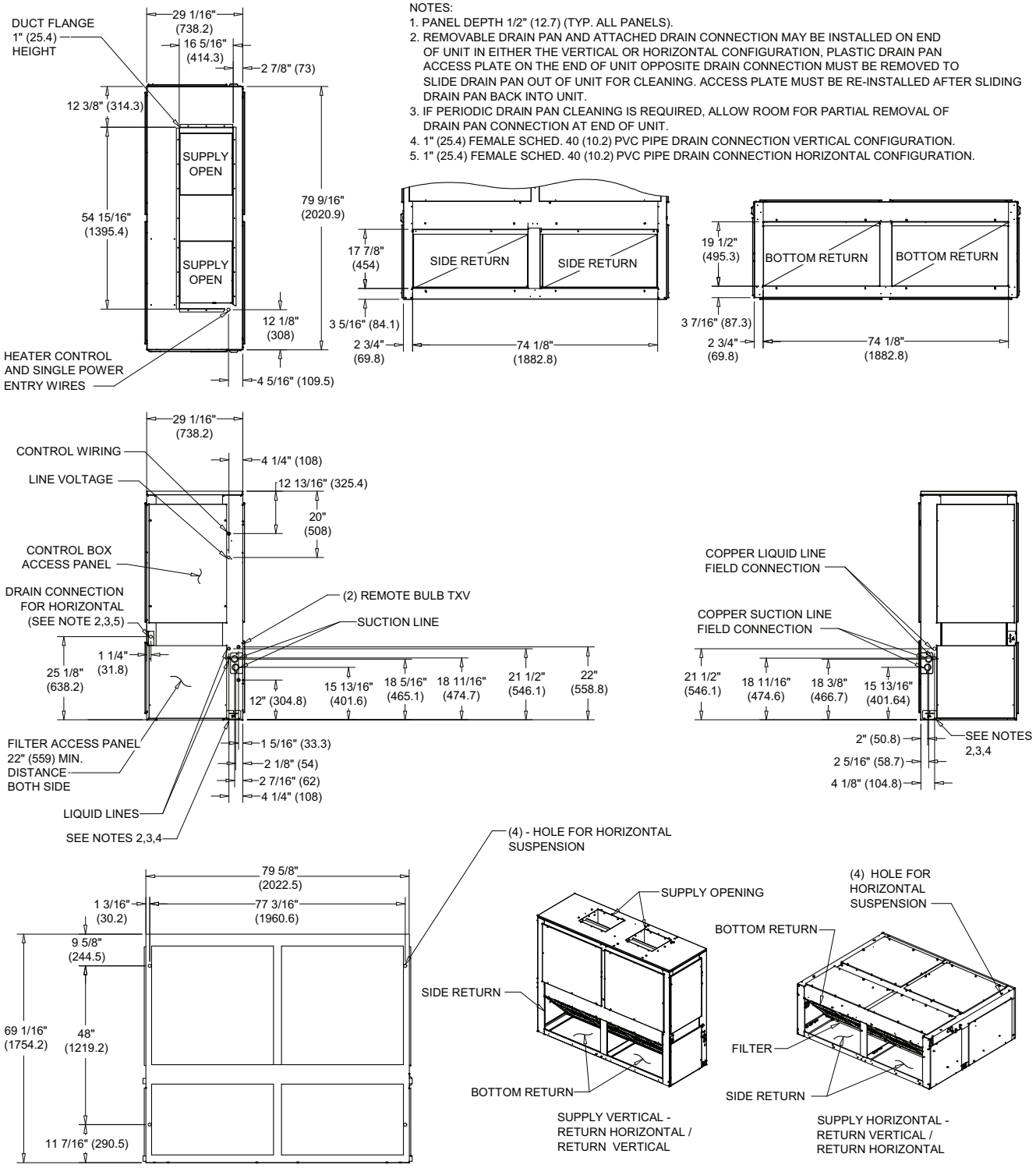
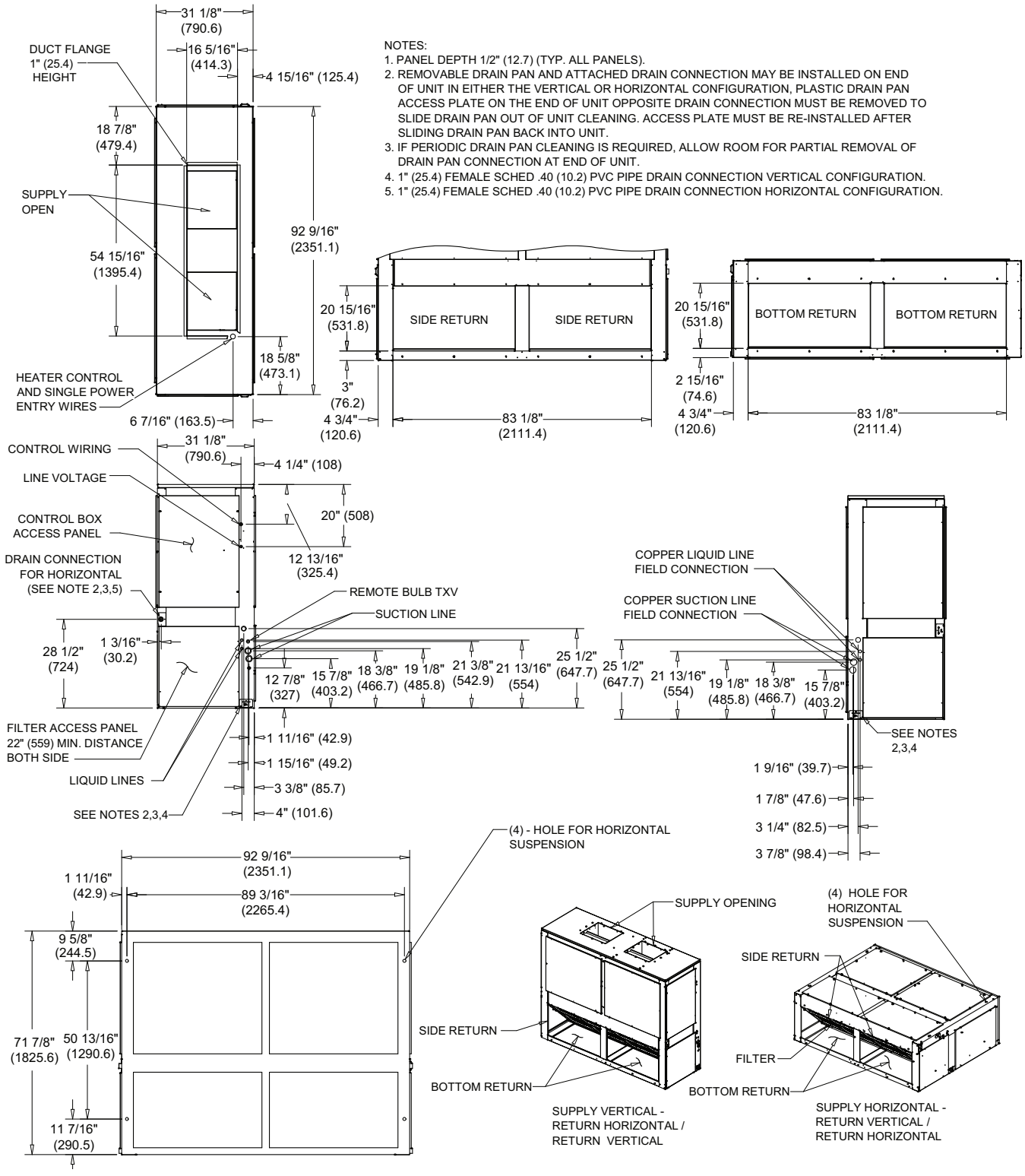
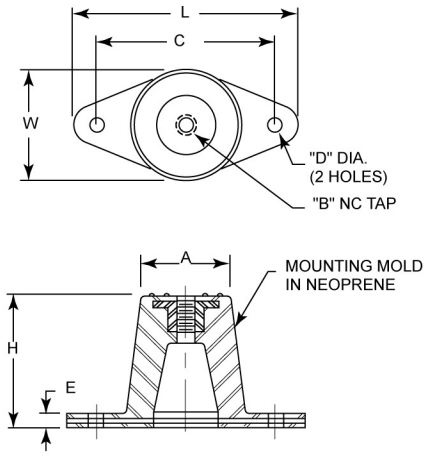


Figure 39. 20-25 Ton Air Handler, Dual Circuit

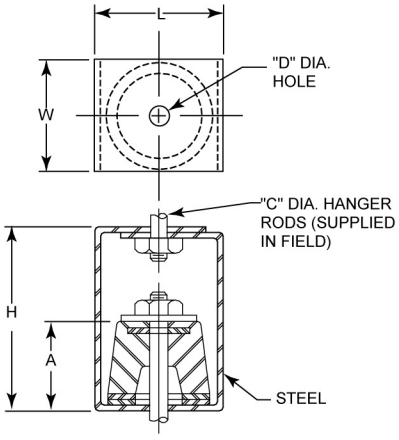


Dimensional Data

Figure 40. 5-25 Tons Rubber Isolator Accessory Dimensions



BAYISLT004, 005, 009, 010



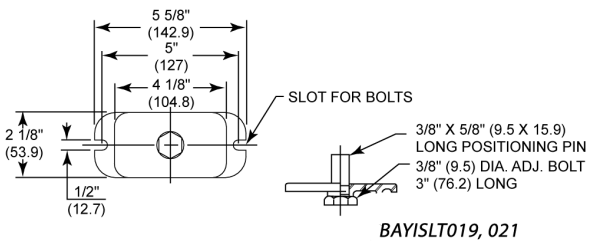
BAYISLT012, 013, 014, 015, 016

Table 71. Rubber Isolator Dimensions - inches

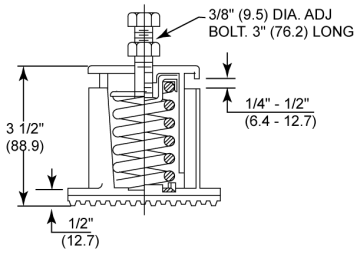
Model No.	L	W	H	A	B	C	D	E
BAYISLT004	3-1/8	1-3/4	1-1/4	1-1/4	3/8	2-3/8	3/8	1/4
BAYISLT005 BAYISLT009 BAYISLT010	3-7/8	2-3/8	1-3/4	1-3/4	3/8	3	3/8	1/4
BAYISLT013 BAYISLT014 BAYISLT015[a]	2-1/4	2	3	1-3/8	3/4	3/8	1/2	—
BAYISLT012 BAYISLT015[a] BAYISLT016	3	2-1/4	4-1/2	1-7/8	1/4	5/8	3/4	—

(a) BAYISLT015 contains quantity 2 of the 2 1/4 x 2 x 3 isolators and quantity 3 of the 3 x 2 1/4 x 4 1/2 isolators.

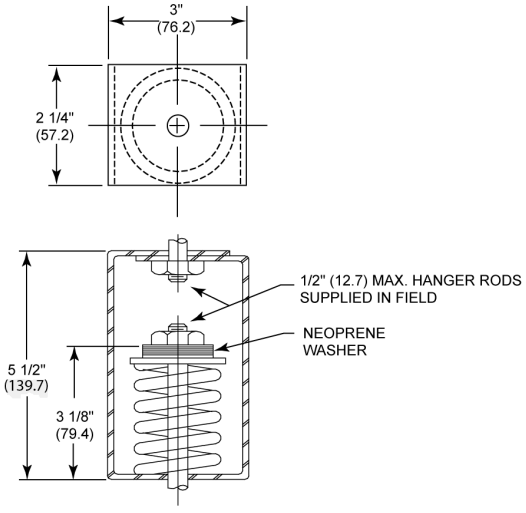
Figure 41. 5-25 Tons Spring Isolator Accessory Dimensions — inches (millimeters)



BAYISLT019, 021



BAYISLT023, 024, 025, 032



BAYISLT028, 029, 030, 031

Figure 42. Electric Heater Accessory for 5-10 Ton Air Handlers. All dimensions are in inches.

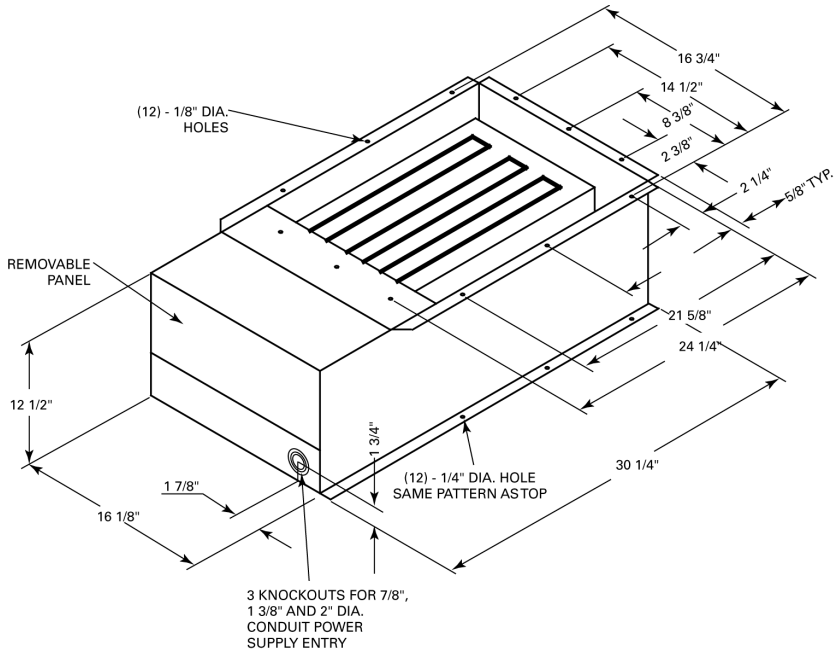


Figure 43. Electric Heater Accessory for 12½-25 Ton Air Handlers. All dimensions are in inches.

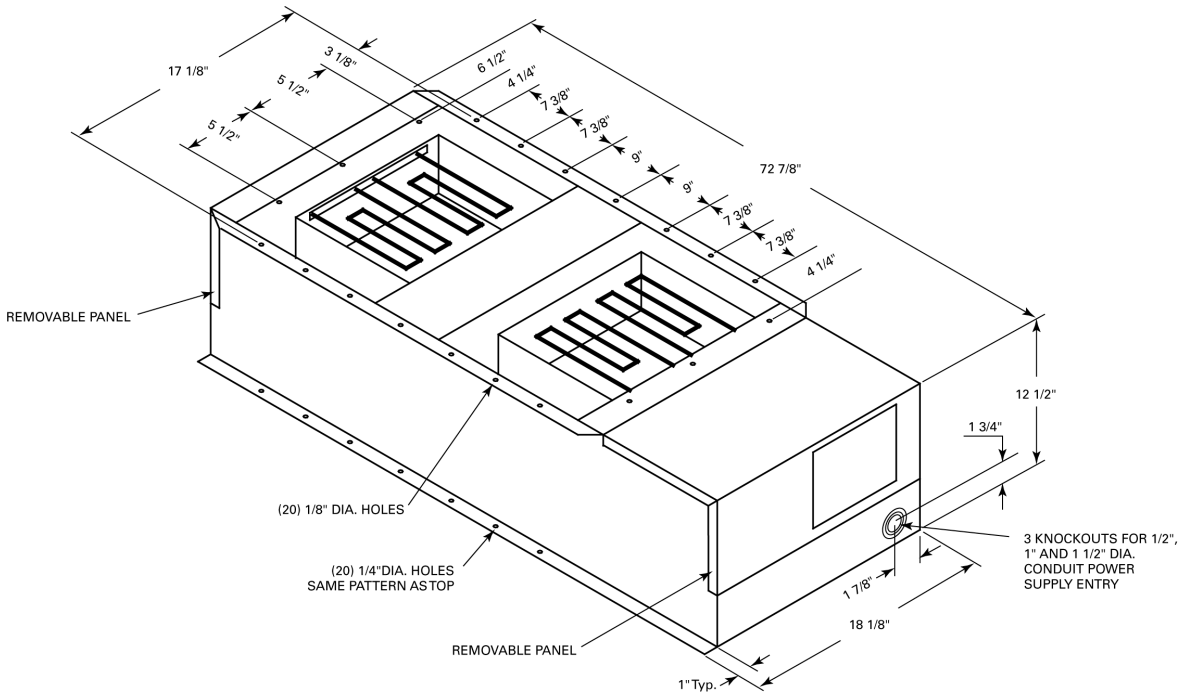


Figure 44. Hot Water Coil Accessory. All dimensions are in inches (millimeters).

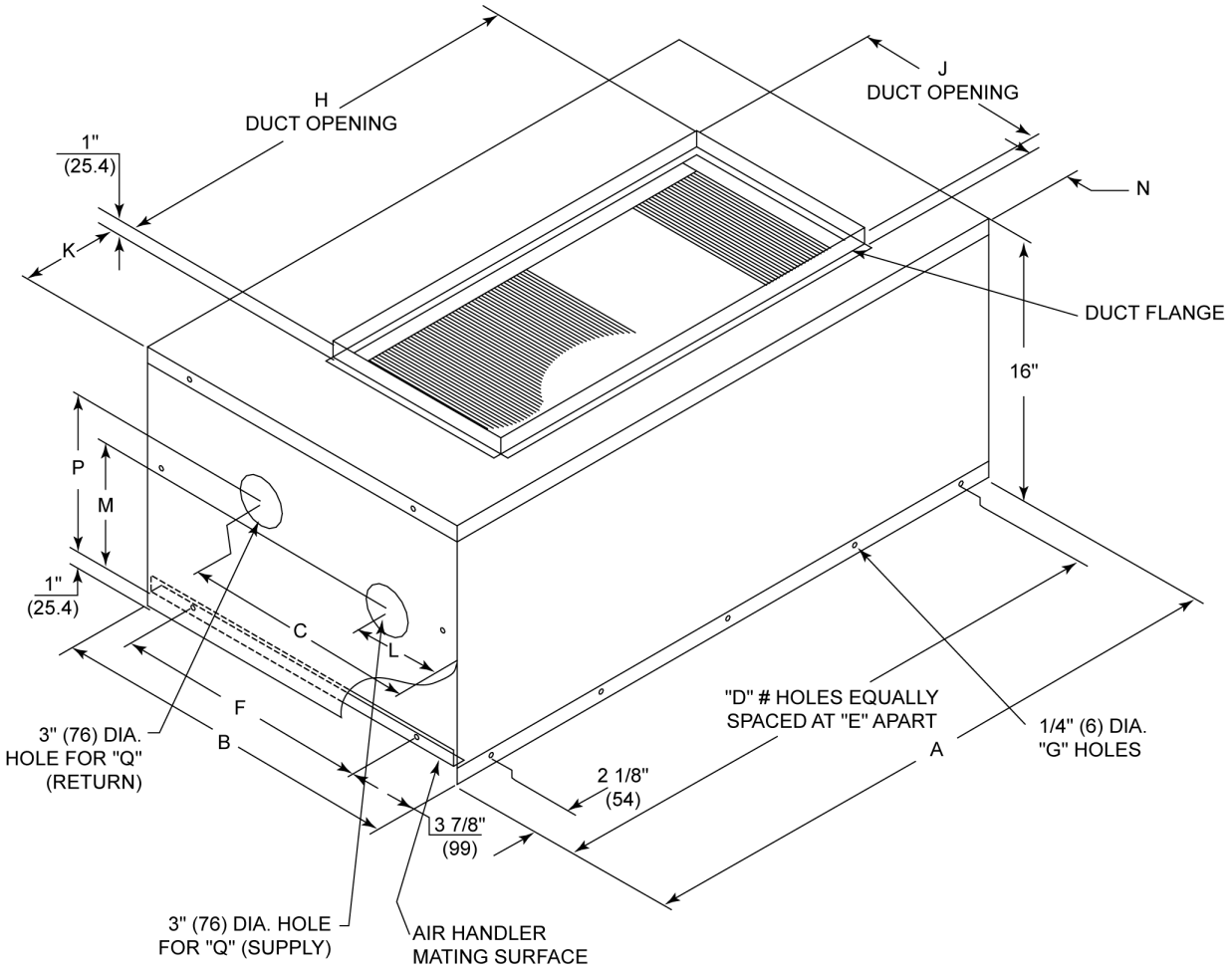


Table 72. Hot Water Coil Dimensions - inches

Tons	Model No.	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q[a]
5	BAYWATR027	38.14	22.74	13.74	5	9	13.65	16	26	12	6	4.94	7.79	2.88	10.24	2 NPT
7½	BAYWATR028	47.74	25.74	15.95	5	10.84	17.17	16	30	18	8.88	8.45	10.27	2.88	7.77	2.5 NPTI
10	BAYWATR029	63.84	25.74	15.95	6	11.84	17.16	18	36	18	13.88	8.45	10.03	2.88	7.58	2.5 NPTI
12½-15	BAYWATR030	79.74	29.18	14.36	8	10.85	19.67	22	51	18	14.25	6.86	9.91	1.88	7.41	2.5 NPTI
20-25	BAYWATR031	92.74	31.24	16.48	8	10.85	19.67	22	64	18	14.25	8.98	9.88	3.75	7.38	2.5 NPTI

(a) Note internal vs. external pipe threads

Figure 45. Steam Coil Accessory. All dimensions are in inches.

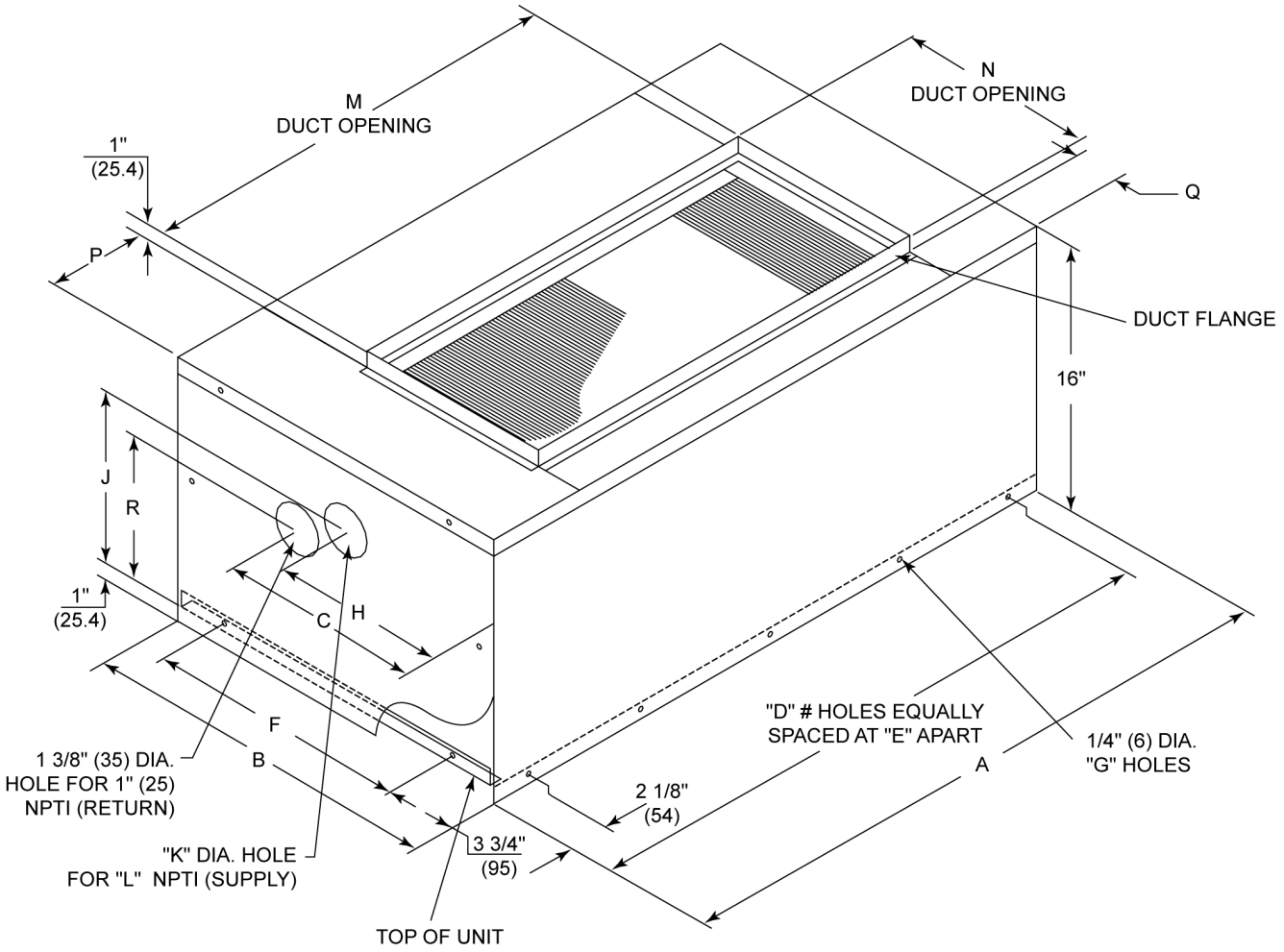


Table 73. Air Handler Dimensions - inches

Tons	Model No.	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
5	BAYWATR022	38.14	22.74	14.32	5	9	13.67	16	10.88	11.17	2	1.5	26	12	6	2.87	9.95
7½	BAYWATR023	47.74	25.74	20.14	5	10.84	17.17	16	10.88	11.17	2	2	30	18	8.87	2.87	9.95
10	BAYWATR024	63.84	25.74	20.14	6	11.87	17.16	18	13.70	10.57	2.5	2	36	18	13.87	2.87	9.13
12½-15	BAYWATR025	79.74	29.18	18.55	8	10.85	19.67	22	12.11	10.05	2.5	2	51	18	14.12	1.87	8.61
20-25	BAYWATR026	92.74	31.24	20.67	8	10.85	19.67	22	14.23	10.01	2.5	2	64	18	14.12	3.75	8.58

Figure 46. Discharge Plenum and Grille Accessory

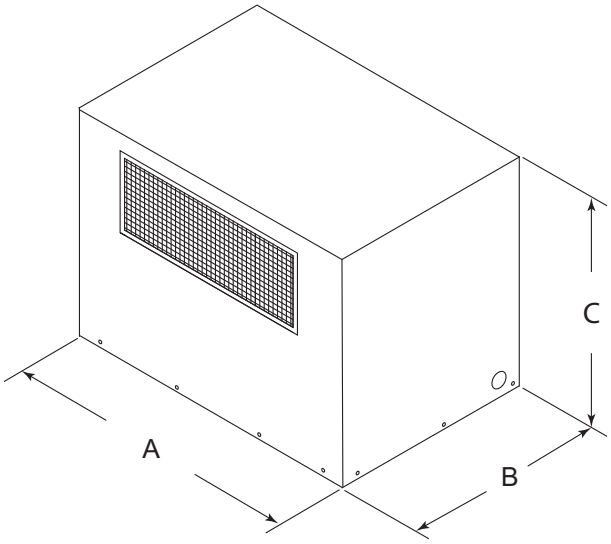


Table 74. Discharge Plenum and Grille Dimensions — No Heat - inches

Tons	Model No.	A	B	C
5	BAYPLNM015	37.94	21.94	28
7½	BAYPLNM016	47.5	24.99	28
10	BAYPLNM017	63.5	24.99	28

Table 75. Hydronic Discharge Plenum and Grille Dimensions - inches

Tons	Model No.	A	B	C
5	BAYPLNM020	37.87	21.91	14.75
7½	BAYPLNM021	47.5	24.99	14.75
10	BAYPLNM022	63.5	24.99	14.75
12½-15	BAYPLNM018[a]	79.5	27.63	22
20-25	BAYPLNM019[a]	92.5	30.43	24

(a) For use with hydronic heat or no heat.

Figure 47. Discharge Plenum and Grille Accessory

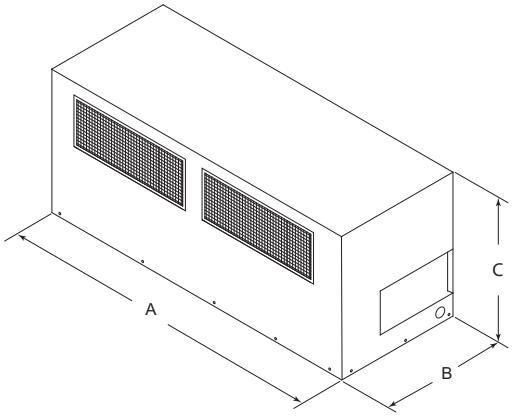


Table 76. Discharge Plenum and Grille Dimensions - inches. For use with Electric Heat.

Tons	Model No.	A	B	C
5	BAYPLNM030	38.07	22.69	29.05
7½	BAYPLNM031	47.86	25.69	29.05
10	BAYPLNM032	63.86	25.69	29.05
12½-15	BAYPLNM033	80.14	29.10	35.11
20-25	BAYPLNM034	92.96	31.10	35.05

Figure 48. Subbase Accessory

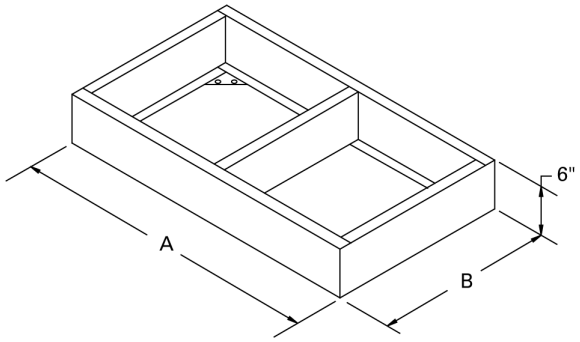


Table 77. Subbase Dimensions - inches

Tons	Model No.	A	B
5	BAYBASE009	38	22.63
7½	BAYBASE010	47.5	25.51
10	BAYBASE011	63.5	25.52
12½-15	BAYBASE012	79.5	29.04
20-25	BAYBASE013	92.5	31.14

Weights

Table 78. TTA Unit and Corner Weights — lbs (60 Hz)

Tons	Model No.	Shipping Max (lbs)	Net Max (lbs)	Corner Weights			
				1	2	3	4
6	TTA073D	365	300	85	90	44	81
7½	TTA090D	363	298	84	89	44	81
10	TTA120D	467	395	133	103	70	89
	TTA120E	510	438	137	127	88	86
	TTA120F	509	438	129	140	83	86
12½	TTA150E	543	468	130	151	79	108
15	TTA180E	850	723	207	204	151	161
	TTA180F	852	725	196	208	153	168
20	TTA240E	970	837	262	240	164	171
	TTA240F	966	835	257	249	153	176
25	TTA300F	1168	1037	338	266	241	194

Figure 49. TTA073, 090, 120, 150

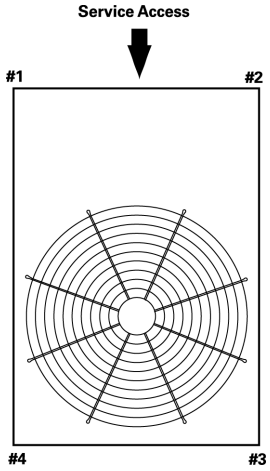


Figure 50. TTA180, 240, 300

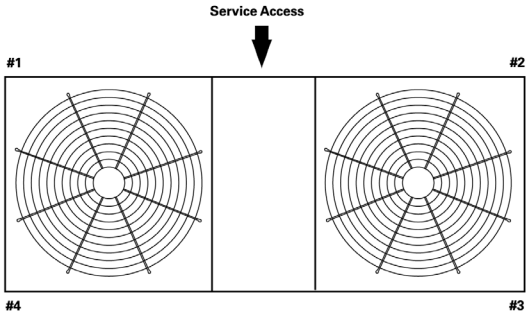


Table 79. Standard Air Handler (TWE) — Unit and Corner Weights - lbs (60 Hz)

Tons	Model No.	Shipping Max (lbs)	Net Max (lbs)	Corner Weights - Vertical				Corner Weights - Horizontal			
				1	2	3	4	A	B	C	D
5	TWE061D/E	263	232	55	71	51	55	54	67	50	61
7½	TWE090D/E	360	323	67	99	75	82	56	92	87	88
10	TWE120D/E	429	393	77	121	110	85	79	118	77	119
12½	TWE150E	730	676	168	192	181	135	196	164	145	171
15	TWE180E	729	675	167	192	181	135	196	163	145	171
20	TWE240E	891	818	258	168	161	231	256	181	146	235
25	TWE300E	972	899	211	229	184	275	272	176	228	223

Table 80. SZVAV and 2-Speed VFD (TWE) — Unit and Corner Weights - lbs (60 Hz)

Tons	Model No.	Shipping Max (lbs)	Net Max (lbs)	Corner Weights - Vertical				Corner Weights - Horizontal			
				1	2	3	4	A	B	C	D
10	TWE120D/E	429	393	77	121	110	85	79	118	77	119
12½	TWE150E	730	676	168	192	181	135	196	164	145	171
15	TWE180E	729	675	167	192	181	135	196	163	145	171
20	TWE240E	891	818	258	168	161	231	256	181	146	235
25	TWE300E	972	899	211	229	184	275	272	176	228	223

Figure 51. Vertical - TWE061, 090, 120

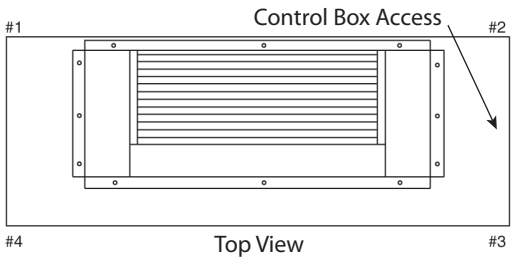
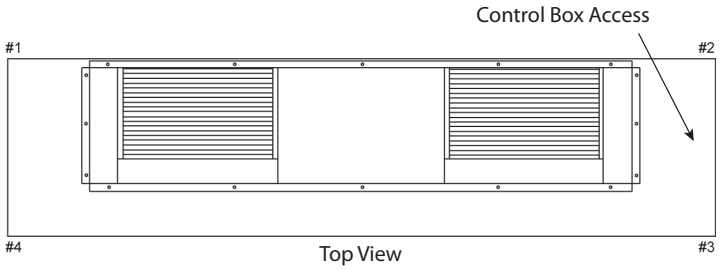


Figure 52. Vertical - TWE150, 180, 240, 300



Weights

Figure 53. Horizontal - TWE061, 090, 120

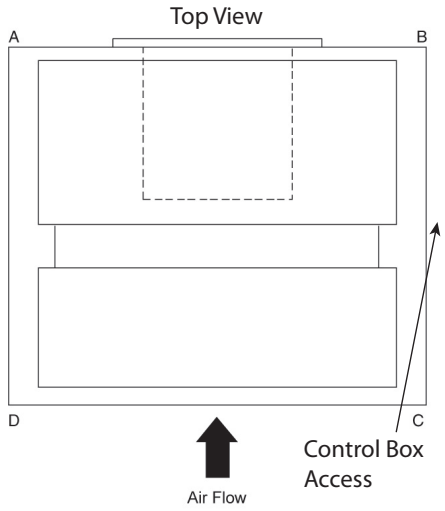


Figure 54. Horizontal - TWE150, 180, 240, 300

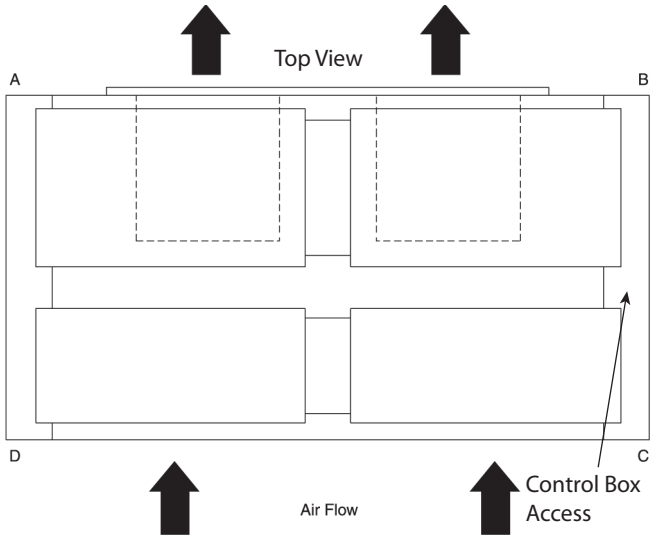


Table 81. Accessory Weights (net lbs.) - 60 Hz

Unit Used With Tons	Hot Water Coil	Steam Coil	Discharge Plenum and Grille[a]	Discharge Plenum and Grille[b]	Discharge Plenum and Grille[c]	Return Air Grille	Electric Heat Min/Max	Subbase	Oversized Motor
5	86	94	63	58	115	3	32/43	14.4	31
7½	116	131	78	73	160	5	27/45	19.4	48
10	165	148	97	92	195	7	27/45	23.5	50
12½	211	234	—	230	235	10	79/100	28.4	80
15	211	234	—	230	235	10	79/100	28.4	80
20	242	261	—	145	265	12	79/100	31.7	88
25	242	261	—	145	265	12	79/100	31.7	—

Continued

Unit Used With Tons	RIS Isolator Floor Mount	RIS Isolator Suspended Mount	Steel Spring Isolator Floor Mount	Steel Spring Isolator Suspended Mount	Control Transformer	Hail Guard	Sensors	Modulating Low Ambient	On/Off Low Ambient
5	2	9	12	6	—	8	1	23	2
7½	2	6	12	6	4	11	1	23	2
10	2	7	12	6	4	20	1	23	2
12½	2	7	12	6	—	22	1	23	2
15	2	7	12	6	—	34	1	23 (req. qty 2)	1 (req. qty 2)
20	2	9	12	6	—	50	1	42 (req. qty 2)	1 (req. qty. 2)
25	2	9	12	6	—	57	1	42 (req. qty 2)	1 (req. qty. 2)

(a) For use with hydronic heat.
(b) For use when no heat is supplied.
(c) For use with electric heat.

Mechanical Specifications

TTA Condensing Units

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 Accy)
- Nitrogen Holding Charge
- Certified and Rated in Accordance with AHRI and DOE Standards
- Certified to UL 1995

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 (TTA073D, TTA090D, TTA120D)

- Single Refrigeration Circuit with Integral Subcooling Circuit
- Single Direct Drive Hermetic Scroll Compressor
- Suction Gas-Cooled Motor w/ ± 10% Voltage Utilization Range of Unit Nameplate Voltage
- Crankcase Heater
- Internal Temperature and Current Sensitive Motor Overloads
- No Compressor Suction and/or Discharge Valves (Reduced Vibration/Sound)
- Factory Installed Liquid Line Filter Drier
- Phase Loss/Reverse Rotation Monitor
- Liquid Line Service Valve (with gauge port)
- Suction Line Service Valve (with gauge port)
- External High Pressure Cutout Device
- External Low Pressure Cutout Device
- Evaporator Defrost Control
- Loss of Charge Protection (Discharge Temperature Limit)

Refrigeration System - Dual Compressor (TTA120E, TTA150E, TTA180E, TTA240E)

- 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/ ± 10% Voltage Utilization Range of Unit Nameplate Voltage
- Crankcase Heaters
- Internal Temperature and Current Sensitive Motor Overloads
- Factory Installed Liquid Line Filter Driers
- Phase Loss/Reverse Rotation Monitor
- Liquid Line Service Valves (with gauge port)
- Suction Line Service Valves (with gauge port)
- No Compressor Suction and/or Discharge Valves (Reduced Vibration/Sound)
- External High Pressure Cutout Devices

- External Low Pressure Cutout Devices
- Evaporator Defrost Control
- Loss of Charge Protection (Discharge Temperature Limit)

Refrigeration System - Dual Manifolded Compressors (TTA120F, TTA180F, TTA240F, TTA300F)

- Single Refrigerant Circuit with Integral Subcooling Circuit.
- Two (2) Direct Drive Hermetic Scroll Compressor
- Suction Gas-Cooled Motors w/ ± 10% Voltage Utilization Range of Unit Nameplate Voltage
- Crankcase Heaters
- Internal Temperature and Current Sensitive Motor Overloads
- No Compressor Suction and/or Discharge Valves (Reduced Vibration/Sound)
- Factory Installed Liquid Line Filter Drier
- Phase Loss/Reverse Rotation Monitor
- Liquid Line Service Valve (with gauge port)
- Suction Line Service Valve (with gauge port)
- External High Pressure Cutout Devices
- External Low Pressure Cutout Devices
- Evaporator Defrost Control
- Loss of Charge Protection (Discharge Line Thermostats)
- Front or Rear Refrigerant Line Connections (TTA300F only)

Condenser Coil

- 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

- Choice of Electro-mechanical or Microprocessor
- Completely Internally Wired
- Numbered and Colored Wires
- Contactor Pressure Lugs or Terminal Block
- Unit External Mounting Location for Disconnect Device
- Single Point Power Entry
- Front or rear electrical connections (TTA300F only)

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

- Thermoset Vinyl Coating
- Bonded to Aluminum Fin Stock (Prior to Fin-Stamping Process)
- Economical Protectant in Mildly Corrosive Environments

Lon Talk® Communication Interface

- Factory or Field Installed
- Communications Board
- Allows Unit Communication as a Tracer™ LCI-R Device
- Allows Unit Communication with Generic LonTalk Network Building Automation Controls

Controls: Electro-Mechanical

- 24V Control Circuit
- Control Transformer
- Thermostat Compatible
- Anti-Short Cycle Timer

Controls: Microprocessor

- Centralized Processor
- Indoor and Outdoor Temperature Sensors Drive Algorithms Making Decisions for All Heating, Cooling, and Ventilation
- Integrated Anti-Short Cycle Timer
- Integrated Time Delay Between Compressors

Field Installed Options

Low Ambient (Fan ON/OFF)

- Provides Unit Cooling Operation to Outdoor Ambient of 0°F
- Low Cost Solution
- Liquid Line Temperature Controls Condenser Fan Operation
- 1 Kit Per Condenser Fan Required

Low Ambient (Modulating)

- Provides Unit Cooling Operation to Outdoor Ambient of 0°F
- “Wave-Chopper”
- Discharge Line Pressure Controls Condenser Fan Operation
- 1 Kit Per Condenser Fan Required

Vibration Isolators

- Neoprene-In-Shear or Spring Flex Choice
- Reduce Vibration Transmission to Building Structures, Equipment, and Adjacent Spaces
- Reduce Noise Transmission to Building Structures, Equipment, and Adjacent Spaces

Hot Gas Bypass

- Provides Capacity Modulation Solution

Zone Sensor

- Interfaces with Microprocessor Units
- Manual or Automatic Programmable
- 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

Lon Talk® 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

TWE Air Handlers

General

- Completely Factory Assembled
- Convertible for Horizontal or Vertical Configuration
- Convertible for Cooling Only or Heat Pump Application
- Convertible for Left or Right External Connections (Refrigerant and/or Electrical)
- Convertible for Front or Bottom Air Return
- Nitrogen Holding Charge
- Certified to UL 1995 for Indoor Blower Coil Units

Casing

- Zinc Coated, Heavy Gauge, Galvanized Steel
- Weather Resistant Baked Enamel Finish
- Access Panels with Captive Screws
- Completely Insulated with Foil Faced, Cleanable, Fire Retardant, Permanent, Odorless Glass Fiber Material
- Captured or Sealed Insulation Edges
- Electrical Connection Bushings or Plugs
- Refrigerant Connection Bushings or Plugs
- Withstand Elevated Internal Static Pressure

Refrigeration System

- Single or Dual Circuit
- Distributor(s)
- Thermal Expansion Valves (TXVs)

Evaporator Coil

- 3/8” Internally Enhanced Copper Tube Mechanically Bonded to Lanced Aluminum Plate Fins
- Factory Pressure and Leak Tested to 449 psig.
- Draw-Through Airflow
- Dual Circuits Are Interlaced/Intertwined
- Double Sloped, Removable, Cleanable, Composite Drain Pan
- Four Drain Pan Positions

Indoor Fan

- Double Inlet, Double Width, Forward Curved, Centrifugal Type Fan
- Dual Fans On 12.5-25 Ton Air Handlers
- Adjustable Belt Drive
- Permanently Lubricated Bearings

Indoor Motor

- Adjustable Motor Sheaves (Standard Units)
- Fixed Motors Sheaves (SZVAV and 2-Speed VFD)
- Thermal Overload Protection
- Permanently Lubricated Bearings
- Meet Energy Policy of 1992 (EPACT)
- Optional Over Sized 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"), Throw-Away Filters on 5-10 Ton Units
- Filter Rack Convertible to Two Inch (2") Capability on 5-10 Ton Units
- Two Inch (2"), Throw-Away Filters on 12.5-25 Ton Units

Factory Installed Options

- Motor Soft Start - avoids startup belt noise and increases belt life

2-Speed VFD Control

- Variable Frequency Drive (VFD)
- Motor Soft Start avoids start up belt noise and increases belt life
- Programmable Keypad accessible outside of airstream
- VFD rated motor
- Factory Installed High Static Motor available

Single Zone Variable Air Volume

- Variable Frequency Drive (VFD)
- Motor Soft Start avoids start up belt noise and increases belt life
- Programmable Keypad accessible outside of airstream
- Airflow adjustment via potentiometer
- Discharge air sensor
- ReliaTel options module
- VFD rated motor
- Factory Installed High Static Motor available

Field Installed Options

Electric Heaters

- Heavy Duty Nickel Chromium Elements
- ETL 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

Over Size Motors

- High Static Applications
- Motor, Sheaves, Belt Included

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