TRANE

# Packaged Cooling & Gas/ Electric Rooftops

# Voyager™

## *12½ - 25 Tons — 60 Hz*

***Packaged Cooling (TC*)***

***Packaged Gas/Electric (YC*)***

**July 2008**

**RT-PRC024-EN**

# Introduction

**Figure 1. Packaged Gas/Electric**

**Figure 2. Packaged Cooling**

## Packaged Rooftop Air Conditioners

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

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

Voyager continues to provide the highest standards in quality and reliability, comfort, ease of service, and the performance of Trane light commercial products.

Trane customers demand products that provide exceptional reliability, meet stringent performance requirements, and are competitively priced. Trane delivers with Voyager.

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

It's Hard To Stop A Trane.®

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# Features and Benefits

## Standard Features

- 2″ throwaway filters provided on 12½-25 ton units
- 5-year Limited Compressor Warranty (12½-17½ tons); 1 year on 20 & 25 tons
- 5 year Limited Heat Exchanger (12½ - 17½ tons) 1 year on 20 & 25 tons)
- 1-year Limited Parts Warranty
- Anti-Short Cycle Timer
- Belt Drive Motors
- Colored and Numbered Wiring
- Crankcase Heaters
- Dedicated Airflow
- Easy Access Low Voltage Terminal Board (LTB)
- Foil-Faced and Edge Captured Insulation
- High Efficiency Drum and Tube Heat Exchanger
- High Efficiency Gas Heat with Hot Surface Ignition
- High Pressure Cutout
- IAQ Sloped Condensate Drain Pan
- Liquid Line Refrigerant Drier
- Low Ambient Cooling to 0°F
- Operating Charge of R-22
- Patented Hybrid Condenser Coil for easy cleaning
- Provisions for Through-the-Base Gas and Condensate Drain Connections
- Quick Access Panels
- Quick Adjust Idler Arm Pulley
- ReliaTel™ Microprocessor Controls
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- Single Side Service
- Standardized Components
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- U-shaped Airflow Pattern

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***Note:*** **Some Factory Installed Options (FIOPS) available for Downflow Air Discharge units only. Please verify with ordering system for availability.*

***Note:*** *Explanation of Notes 1-17 located on page following Model Number Description.*

### *Field Installed Options*

- $CO_2$ Sensing
- Digital Display Zone Sensor
- Dual Thermistor Remote Zone Sensor
- Economizer (Horizontal)
- High Altitude Kit
- High and Low Static Drive Kits
- Humidity Sensor
- Low Static Drive
- LP Conversion Kit
- Manual Outside Air Damper
- Motorized Outside Air Dampers
- Powered Exhaust
- Quick Start Kit
- ReliaTel Options Module 9
- Remote Potentiometer
- Roof Curb (Downflow Only)
- Thermostat
- Ventilation Override Accessory 2
- Zone Sensors and Remote Zone Sensors

## 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 benefits
- Unmatched Product Support

## Unmatched Support

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

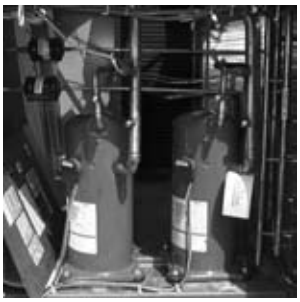
### Anti-Short Cycle Timer (Standard with ReliaTel™)

Provides a 3 minute minimum "ON" time and 3 minute "OFF" time for compressors to enhance compressor reliability by assuring proper oil return.

### Colored And Numbered Wiring

Save time and money tracing wires and diagnosing the unit.

### Compressors



Voyager contains the best compressor technology available to achieve the highest possible performance. Dual compressors are outstanding for humidity control, light load cooling conditions and system back-up applications. Dual compressors are available on all models.

### Condenser Coil

Voyager boasts a patent-pending 1+1+1 condenser coil, permanently gapped for easy cleaning.

### Controls – ReliaTel

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.

## Conversionless Units

The dedicated design units (either downflow or horizontal) require no panel removal or alteration time to convert in the field — a major cost savings during installation. Horizontal 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 or insertion heaters provide improved compressor reliability by warming the oil to prevent migration during off-cycles or low ambient conditions. These are standard on all Voyager models.

## Efficiencies

Standard or High Efficiency Cooling available.

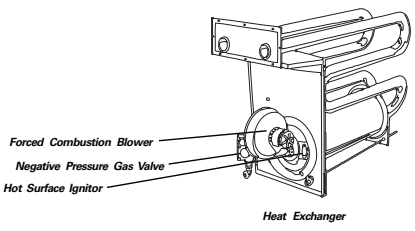
## Easy Access Low Voltage Terminal Board

Voyager's Low Voltage Terminal Board is external to the electrical control 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 panels in the evaporator section of the unit have cleanable foil-faced insulation. All edges are either captured or sealed to ensure no insulation fibers get into the airstream.

## Heat Exchanger - Drum and Tube




The cabinet features a drum and tube heat exchanger that is manufactured using aluminized steel with stainless steel components for maximum durability.

The requirement for cycle testing of heat exchangers is 10,000 cycles by ANSI Z21.47. This is the standard required by both UL and AGA for cycle test requirements. Trane requires the design to be tested to 2½ times this current standard. The drum and tube design has been tested and passed over 150,000 cycles, which is over 15 times the current ANSI cycling requirements.

The negative pressure gas valve is used in the standard furnaces. This is one of our unique safety features. Modulating heaters use a pressure switch to ensure that the blower motor is operating before the gas valve is allowed to open.

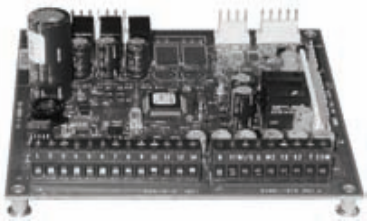
The forced combustion blower supplies pre-mixed fuel through a single stainless steel burner screen into a sealed drum where ignition takes place. It is more reliable to operate and maintain than a multiple burner system. Modulating furnaces contain a metal fiber material to ensure proper flame distribution at low fire.

The hot surface ignitor is a gas ignition device which doubles as a safety device utilizing a continuous test to prove the flame. The design is cycle tested at the factory for quality and reliability. Our gas/electric rooftops exceed all California seasonal efficiency requirements and perform even better than the California NOx emission requirements.

## Low Ambient Cooling

All Voyager microprocessor units have cooling capabilities down to 0°F as standard.

## Low Voltage Connections



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

## Motors

All indoor fan motors are belt drive as standard.

## Pressure Cutouts

Low and high pressure cutouts are standard on all Voyager models.

## Quick-Access Panels

Remove three or more screws for access to the standardized internal components and wiring.

## Quick-Adjust Slider Plate

With the Quick-Adjust Slider Plate, the belt and sheaves can be quickly adjusted without moving the mounted fan motor. The result is a major savings in time and money.

## Single Point Power

A single electrical connection powers the unit.

## Single Side Service

Single side service is standard on all units.

### Sloped Drain Pans

Every Voyager unit has a non-corrosive, sloped drain pan made of pre-painted steel and standard on all units.

### Standardized Components

Components are placed in the same location on all Voyager units. Familiarize yourself with one Voyager and you are familiar with every Voyager.

Due to standardized components throughout the Voyager line, contractors/owners can stock fewer parts.

# Variety of Options*

## Factory Installed Options

### Black Epoxy Pre-Coated Coils

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

### Circuit Breaker (Required with Through- the-Base Electrical)

This option is a factory installed thermal magnetic, molded case, HACR Circuit Breaker with provisions for through the base electrical connections. Available on all models.

### Disconnect Switch (Required with Through-the-Base Electrical)

Factory installed 3-pole, molded case, disconnect switch with provisions for through the base electrical connections are available. Available on all models.

Codes require a method of assured unit shutdown for servicing. Field-installed disconnects sometimes interfere with service access. Factory installation of unit disconnects reduces costs, assures proper mounting and provides the opportunity to upgrade to unit circuit breaker protection.

### Dehumidification (Hot Gas Reheat) Option

This option allows for increased outdoor air ventilation. It reduces humidity levels while increasing comfort level in the air space. Cooling can operate without a demand for dehumidification. The hot gas reheat coil is designed to deliver maximum reheat temperatures.

## Hinged Access Doors

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

## Motors

Factory or field installed oversized motors available for high static applications are available.

High Efficiency motors are also available with efficiency ratings from 86.5 up to 91.0. It is not available for all models.

## Novar Unit Controls

Novar 3051 and 2024 are available for Voyager Cooling and Gas/Electric models.

## Powered or Unpowered Convenience Outlet

This option is a GFCI, 120v/15amp, 2 plug, convenience outlet, either powered or unpowered. This option can only be ordered when Through the Base Electrical with either the Disconnect Switch or Circuit Breaker option is ordered. This option is available on all models.

## Stainless Steel Heat Exchanger

The optional stainless steel heat exchanger is constructed of 304 stainless steel. It is resistant to corrosion and oxidation and easy to clean.

The high strength to weight ratio allows for high ventilation rates with gas units and comes standard with a modulating gas heat option.

With this option, a 10-year stainless steel heat exchanger warranty is standard.

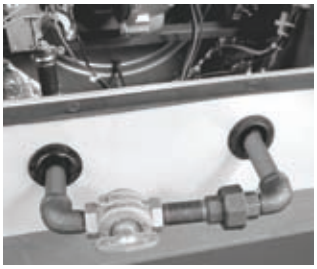
## Supply and/or Return Air Smoke Detector

With this option installed, if smoke is detected, all unit operation will be shut down. Reset will be manual at the unit. Return Air Smoke Detectors require minimum allowable airflow when used with certain models.

## Thermal Expansion Valve

Available for a wider range of applications. This is available on high efficiency models.

### Through-the-Base Electrical Utility Access



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

Factory provided through the base openings simplify wiring and piping. Because these utility openings frequently minimize the number of roof penetrations, the integrity of roofing materials is enhanced.

### Two-Inch Pleated Filters

2" pleated media filters are offered as an option on all Voyager units for jobs with enhanced Indoor Air Quality (IAQ) requirements.

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

## Factory or Field Installed Options*

### Barometric Relief

Designed to be used on downflow units, barometric relief is an unpowered means of relieving excess building pressure.

### Clogged Filter/Fan Failure Switch

A dedicated differential pressure switch is available to achieve active fan failure indication and/or clogged filter indication.

These sensors allow a zone sensor service light or Integrated Comfort System to indicate a dirty filter or a fan that's not working. The field installation charges for these valuable feedback devices often eliminate them from consideration. Factory installation can make such features a good investment.

### Discharge Air Sensing Kit

Provides true discharge air sensing in heating models. The kit is functional only with the ReliaTel Options Module.

### Electric Heaters

Electric heat modules are available within the basic unit. If ordering the Through the Base Electrical option with an Electrical Heater, the heater must be factory installed.

### Fresh Air Options – Dampers and Economizer

0 - 25% manual or 0 - 50% motorized outside air hoods are available.

Economizers are equipped with either dry bulb or reference or comparative enthalpy sensing. These economizers provide free cooling as the outdoor temperature and/or humidity decreases. Correctly installed, they offer a valuable energy savings. Factory-installed economizers save time and ensure proper installation.

### Frostat

This capillary bulb embedded in the face of the evaporator coil monitors coil temperature to prevent evaporator icing and protect the compressor. Recommended for applications with low leaving air temperatures, low airflow and or high latent load applications.

### LonTalk® Communications Interface

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

### Oversized Motors

Factory or field installed oversized motors available for high static applications.

## Phase Monitor

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

### Reference or Comparative Enthalpy

Measures and communicates humidity while maximizing comfort control.

### Tool-less Hail Guards

Tool-less, hail protection quality coil guards shall be either factory or field-installed for condenser coil protection. This option protects the condenser coil from vandalism and/or hail damage.

### Trane Communication Interface (TCI)

Available factory or field installed. This module when applied with the ReliaTel™ easily interfaces with Trane's Integrated Comfort™ System.

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

## Field Installed Options*

### $CO_2$ Sensing

The $CO_2$ sensor has the ability to monitor space occupancy levels within the building by measuring the parts per million of $CO_2$ (Carbon Dioxide) in the air. As the $CO_2$ levels increase, the outside air damper modulates to meet the $CO_2$ space ventilation requirements. The $CO_2$ sensor kit is available as a field installed accessory.

### Digital Display Zone Sensor

The Digital LCD (Liquid Crystal Display) zone sensor has the look and functionality of standard zone sensors. This sensor should be utilized with ReliaTel controls.

### Dual Thermistor Remote Zone Sensor

This sensor will reduce the total number of remote sensors to obtain space temperature averaging. This sensor should be utilized with ReliaTel controls.

### High Altitude Kit

Previously a Canadian Agency requirement for units applied about 2000 feet, it is not required by the U.S. Domestic contractors should consult with local authority on best practice. Devates gas orifices by 10%.

### Humidity Sensor/Humidistat

Used in conjunction with our Dehumidification (Hot Gas Reheat) units to provide outstanding humidity control and comfort. Humidity sensors can be wall or duct mounted and set for levels between 40 and 60%.

### LP Conversion Kit

Provided for field conversion of gas/electric units from Natural gas to Propane.

### Powered Exhaust Option

This option is available on downflow units and provides exhaust of the return air, when using a downflow economizer, to maintain proper building pressurization. Great for relieving most building overpressurization problems.

### Remote Potentiometer

When properly installed in the economizer control circuitry, this accessory provides a remote variable resistance to enable the operator to adjust the minimum damper position.

### Roof Curbs

Available for downflow units. Only two roof curbs for the entire Voyager line simplifies curb selection.

### Static Drive Accessories

Available on many models, this high and low static drive accessories extend the capability of the standard motor. Avoid expensive motors and operating costs by installing this optimized sheave accessory.

### Ventilation Override Accessory

With the Ventilation Override Accessory installed, the unit can be set to transition to up to 3 different pre-programmed sequences for Smoke Purge, Pressurization and Exhaust. The transition occurs when a binary input on the RTOM is closed (shorted). This would typically be a hard wired relay output from a smoke detector or fire control panel. The ventilation override kit is available as a field installed accessory.

### Zone Sensors/Thermostats

Available in programmable, automatic and manual styles.

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

## Other Benefits

### Airflow Distribution

Airflow is outstanding. The Voyager can replace an older machine with old ductwork and, in many cases, improve the comfort through better air distribution. The U-shaped airflow allows for improved static capabilities.

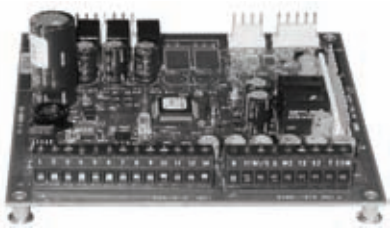
### Cabinet Integrity

For added water integrity, Voyager has a raised 1 1/8" lip around the supply and return of the downflow units to prevent water from blowing into the ductwork.

## Easy to Install, Service and Maintain

Because today's owners are very cost-conscious when it comes to service and maintenance, the Trane Voyager was designed with direct input from service contractors. This valuable information helped to design a product that would get the serviceman off the job quicker and save the owner money. Voyager does this by offering 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.

## ReliaTel™ Controls



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

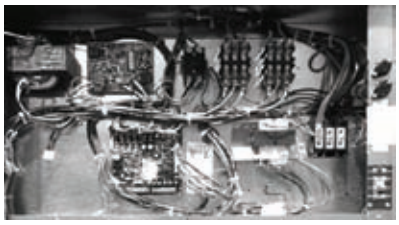
### *ReliaTel Control Logic Enhances Quality and Reliability*

—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.

Voyager 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 anti-shortcycle timer and 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 Voyager unit through its paces. Simply place a jumper between Test 1 and Test 2 terminals on the Low Voltage Terminal Board and the unit will walk through its operational steps automatically.

The unit automatically returns control to the zone sensor after stepping through the test mode a single time, even if the jumper is left on the unit.

As long as the unit has power and the "system on" LED is lit, ReliaTel is operational. The light indicates that the controls are functioning properly. ReliaTel features expanded diagnostic capabilities when utilized with Trane Integrated Comfort™ Systems.

Some zone sensor options have central control panel lights which indicate the mode the unit is in and possible diagnostic information (dirty filters for example).

### *Other ReliaTel Benefits*

The ReliaTel built-in anti-shortcycle timer, time delay relay and minimum “on” time control functions are factory tested to assure proper operation.

ReliaTel softens electrical “spikes” by staging on fans, compressors and heaters.

Intelligent Fallback is a benefit to the building occupant. If a component goes astray, the unit will continue to operate at predetermined temperature setpoint.

Intelligent Anticipation is a standard ReliaTel feature. It functions continuously as ReliaTel and zone sensor(s) work together in harmony to provide much tighter comfort control than conventional electro-mechanical thermostats.

The same ReliaTel Board fits all Voyager Packaged Gas/Electrics, Cooling, and Heat Pump models. This provides standardization of parts for contractors. Less money is tied up in inventory with ReliaTel.

### *VariTrac – Building Automation System*

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

## Rigorous Testing

All of Voyager’s designs were rigorously rain tested at the factory to ensure water integrity.

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

**Figure 3. VariTrac Building Automation System**

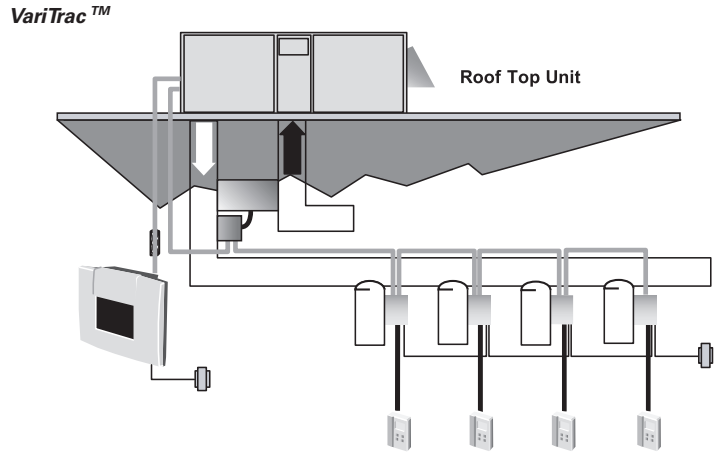
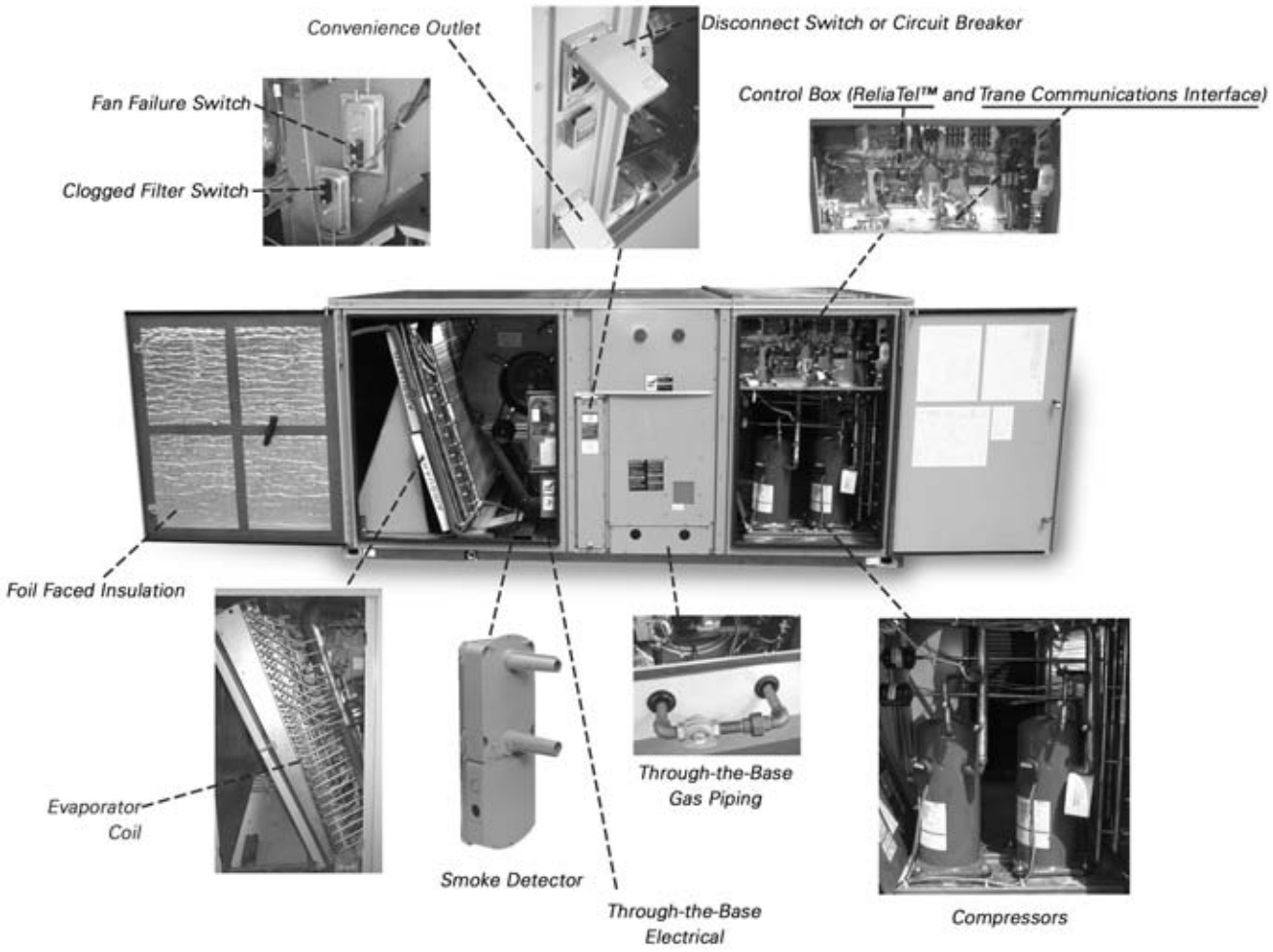


**Figure 4. Voyager Factory Installed Options**



# Application Considerations

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

## Barometric Relief

This product line offers an optional barometric relief damper for use in conjunction with economizer option. This accessory consists of gravity dampers which open with increased pressure. As the building air pressure increases, the pressure in the unit return air section also increases, opening the dampers and relieving the conditioned space.

*The effectiveness of barometric relief damper during economizing operation is system related.*

*Pressure drop of the return air system should be considered to control building pressurization.*

## Black Epoxy Coil

The coils are manufactured with a thermoset, vinyl coating that is bonded to the aluminum fin stock prior to the fin stamping process. These coils are an economical option for protection in mildly corrosive environments.

*Not to be used where seacoast applications exist.*

## Clearance Requirements

The recommended clearances identified with unit dimensions should be maintained to ensure adequate serviceability, maximum capacity and peak operating efficiency. Actual clearances which appear inadequate should be reviewed with local Trane American Standard sales personnel.

## Condensate Trap

The evaporator is a draw-thru configuration. A trap must be field provided prior to start-up on the cooling cycle.

## Heating Operation

The heat exchanger is manufactured with aluminized steel. To prevent condensation within the heat exchanger, do not exceed 50% outside air or a minimum mixed air temperature of 40°F.

## Optional Stainless Steel Heat Exchanger

The optional stainless steel heat exchanger is manufactured with 304 stainless steel. To prevent corrosion and prolong heat exchanger reliability, the minimum mixed air temperature allowed across the heat exchanger is 20°F.

The stainless steel heat exchanger option is an excellent option that compliments the dehumidification package and is used in conjunction with the modulating heat option.

Whenever high outside air or outside applications exist, these options should be utilized.

## Low Ambient Cooling

The Voyager™ Packaged Rooftop line features, with ReliaTel™ microprocessor controls, low ambient cooling down to 0°F. The following options need to be included/considered when low ambient applications are required: continuous fan operation, crankcase heaters (standard), thermal expansion valves, frostat.

Contact your local Trane American Standard Representative for more assistance with low ambient cooling applications.

## Unit Pitch

These units have sloped condensate drain pans. Units must be installed level. Any unit slope must be toward access side of the unit.

# Selection Procedure

## Cooling Capacity

***Note:*** *Cooling Capacity Procedure is the same for cooling (TC*) and gas/electric (YC*).*

***Step 1.***

Calculate the building's total and sensible cooling loads at design conditions. Use the Trane American Standard calculation methods or any other standard accepted method.

Factors used in unit selection:

Total Cooling Load: 180 MBh
Sensible Cooling Load: 129 MBh
Airflow: 6000 cfm
Electrical Characteristics: 460/60/3
Summer Design Conditions: Entering Evaporator Coil - 80 DB, 67 WB, Outdoor Ambient - 95 DB
External Static Pressure: 0.49 in. wg
Rooftop - downflow configuration

Accessories**:**

- Roof curb
- Economizer
- Electric Heat

***Step 2.***

As a starting point, a rough determination must be made of the size of the unit. The final selection will be made after examining the performance at the given conditions. Divide the total cooling load by nominal BTUH per ton (12 MBh per ton); then round up to the nearest unit size.

180 MBh / 12 MBh = 15.0 tons

***Step 3.***

Table 12, p. 36 shows that a TCD180B4 has a **gross** cooling capacity of 184 MBh and 130 MBh sensible capacity at 6000 cfm and 95 DB outdoor ambient with 80 DB, 67 WB air entering the evaporator.

**To Find Capacity at Intermediate Conditions Not in the Table.**

When the design conditions are between two numbers that are in the capacity table, interpolation is required to approximate the capacity.

***Note:*** *Extrapolation outside of the table conditions is not recommended.*

***Step 4.***

In order to select the correct unit which meets the building's requirements, the fan motor heat must be deducted from the gross cooling capacity. The amount of heat that the fan motor generates is dependent on the effort by the motor - cfm and static pressure. To determine the total unit static pressure you add the external static pressure to the additional static related by the added features:

| | |
|---|---|
| External Static Duct System | 0.49 wg |
| Standard Filter 1 in. from Table 59, p. 86 | 0.10 wg |
| Economizer from Table 58, p. 85(100% Return Air) | 0.04 wg |
| Electric Heater Size 36 kW from Table 59, p. 86 | 0.07 wg |
| **Note:** (reference "Heating Capacity" section on this page for determination of heater size). No additional static add for gas/heat exchanger. | |
| Total Static Pressure | 0.60 wg |

***Note:*** *The Evaporator Fan Performance Table 29, p. 59 has already accounted for the pressure drop for standard filters and wet coils (see note below Table 29). Therefore, the actual total static pressure is 0.60 -0.10 (from Table 59 = 0.50 wg).*

With 6000 cfm and 0.50 wg. *Table 29, p. 59* shows 2.56 bhp for this unit. Note below the table gives a formula to calculate Fan Motor Heat,

3.15 x bhp = MBh.

3.15 x 2.56 = 8.06 MBh.

Now subtract the fan motor heat from the gross cooling capacity of the unit:

Net Total Cooling Capacity = 184 MBh - 8.06 = 175.9 MBh.

Net Sensible Cooling Capacity = 130 MBh - 8.06 = 121.9 MBh.

***Step 5.***

If the performance will not meet the required load of the building -total or sensible cooling load, try a selection at the next higher size unit.

## Heating Capacity

***Note:*** *Heating capacity procedures DIFFER for cooling (TC*) and gas/electric (YC*) units.*

***Step 1.***

Calculate the building heating load using the Trane American Standard calculation form or other standard accepted method.

***Step 2.***

Size the system heating capacity to match the calculated building heating load. The following are building heating requirements:

**TC* cooling units**:
460 volt/3 phase Power Supply
Total heating load of 115.0 MBH, 6000 cfm

The electric heat accessory capacities are listed in Table 61, p. 87. From the table, a 36 kw heater will deliver 122.94 MBh at 480 volts. In order to determine capacity at 460 volts, the heater voltage correction factor from Table 62, p. 88 must be used. Therefore, 122.94 MBh x .94 (voltage correction factor) = 115.6 MBh.

**YC* gas/electric**:

Fuel natural gas total heating load of 195 MBh. Table 29, p. 59 shows 250 MBh and 350 MBh input models. The output capacities of these furnaces are 203 MBh and 284 MBh respectively. The low heat model with 203 MBh output best matches the building requirements.

## Air Delivery Selection

***Note:*** *Air Delivery procedures is the same for cooling (TC*) and gas/electric (YC*) units.*

External static pressure drop through the air distribution system has been calculated to be 0.50 inches of water. From Table 59, p. 86 static pressure drop through the economizer is 0.04 and the 36 kw heater is 0.07 inches of water (0.49 + 0.04 + 0.07). Enter Table 59 for a TCD180B4 at 6000 cfm and 0.50 static pressure. The standard motor at 777 rpm will give the desired airflow at a rated bhp of 2.71.

## Dehumidification Selection

***Note:*** *Dehumidification selection procedure is the same for both cooling (TCD) and gas/ electric (YCD) models. Determine normal unit cooling and heating capacities as previously described in the selection procedures on prior page.*

Typical 20 Ton TFD241C
6400 cfm Total Supply airflow
2560 cfm Outside Air (40%)
3840 cfm Return Air
0.41" External Static Pressure

**OA Conditions**
Part load day and raining
68°F db
67°F wb
66.5 dp
95% RH
**RA' Conditions**
75°F db
63°F wb
52% RH
55.9 dp

***Step 1:***

Determine the mixed/entering air condition (MA)

MA = (% outside air*outside air drybulb temperature) + (% return air*return air dry-bulb temperature) MA = (0.40*68°F) + (0.60*75°F)
MA = 72.20°F db

***Note:*** *Repeat for wet-bulb temperature (wb).*

Plot on psychrometric chart.

MA
72.2°F db
64.7°F wb

***Step 2:***

Determine the additional static pressure drop for a reheat unit.

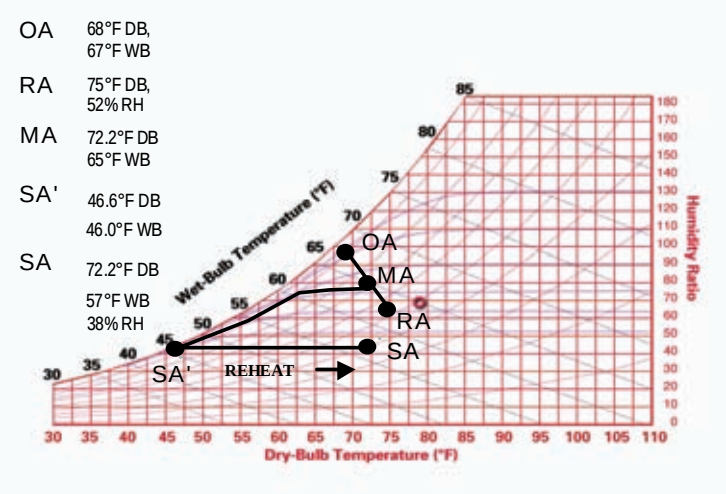
Table 59, p. 86 shows a static pressure drop of 0.35" for the reheat coil and an additional .04 for the mandatory 2" pleated filters required when ordering the dehumidification option.

Total static pressure = 1.0 + 0.035 + 0.04 = 1.075

(≅1.1 for manual calculations)

Do not forget to also add any additional static from other accessories.

Table 50, p. 80 (airflow table for 20 ton dehumidification units) indicates that a standard motor and drive is needed for this airflow and static pressure range.




## Step 3a:

Determine leaving evaporator temperature (SA')

Leaving Evaporator Temperature = SA'

Utilizing the manual **Cooling Capacity** selection method as previously described, find the leaving evaporator temperatures with the formula:

$$\Delta \text{ Temp} = \frac{\text{gross sensible or gross latent cooling capacity in Btuh}}{\text{(cfm) (1.085)}}$$

Subtract your sensible Δ temp from the entering db and latent Δ temp from the entering wb to determine the leaving evaporator db & wb (temperatures without the addition of fan heat).

51.7 db
51.03 wb

Connect MA and SA' on psychrometric chart with cooling curve.

## Step 3b:

Determine leaving unit temperature in standard cooling mode.

Repeat Step 3a substituting **net** sensible or latent capacity for **gross** sensible or latent capacity to find the leaving unit temperature including fan heat.

48.9 db 53.6 db

47.0 wb 51 wb

84% RH

49% dp

### Step 4:

Determine reheat temperature rise Using the leaving evaporator temp, go to Table 64, p. 89and find the reheat temperature rise for that particular cfm: 17.55°F db

***Note:*** *Reheat temperature rise is based on supply airflow and leaving evaporator coil temperature.*

### Step 5:

Determine leaving unit sensible temperature with reheat active (SA) Reheat temperature (obtained in step 3) + (SA' + fan heat) = SA

***Note:*** *(SA' + fan heat) = leaving unit temperature in standard cooling mode from step 3b.*

17.55°F db + 53.6°F = 71.2°F db

SA = 71.2°F

Since reheat adds only sensible heat, the dewpoint temperature will remain constant so follow the dewpoint temperature line across the psychrometric chart to find the new wb temperature.

51 wb

29.4 dp

20.8 RH

Consider the Psychrometric Chart. If the space relative humidity is equal to or above the space relative humidity setpoint, the Dehumidification option will:

- Energize compressor or both compressors (2 stage compressor units).
- Hot gas reheat valve is energized and hot gas is diverted to the reheat coil.
- Dehumidification/reheat is terminated when space humidity is reduced to 5% below relative humidity setpoint.

At MA, air enters the RTU. The RTU filters, cools, and dehumidifies the air as it moves through the evaporator coil. Air leaves the evaporator coil saturated at the preset dew point condition (SA') and is reheated by the hot gas reheat coil to deliver 71°F (SA) supply air to the space.

# Model Number Description

| T C | D | 150 | C | 3 | 0 | 0 | A | A |
|---|---|---|---|---|---|---|---|---|
| 1 2 | 3 | 456 | 7 | 8 | 9 | 10 | 11 | 12 |

### *DIGIT 1,2 — UNIT TYPE*

TC Packaged Cooling, Electric Heat

TF With Factory Installed Options

YC Packaged Gas/Electric

YF With Factory Installed Options

### *DIGIT 3 — AIRFLOW CONFIGURATION*

D Downflow

H Horizontal

### *DIGIT 4,5,6 — NOMINAL GROSS COOLING CAPACITY (MBh)*

150 12½ Tons Standard Efficiency

151 12½ Tons High Efficiency

180 15 Tons Standard Efficiency

181 15 Tons High Efficiency

210 17½ Tons Standard Efficiency

211 17½ Tons High Efficiency

240 20 Tons Standard Efficiency

241 20 Tons High Efficiency

300 25 Tons Standard Efficiency

301 25 Tons High Efficiency

### *DIGIT 7 — MAJOR DESIGN SEQUENCE*

### *DIGIT 8 — VOLTAGE SELECTION*

3 208-230/60/3

4 460/60/3

W 575/60/3

K 380/60/3

### *DIGIT 9,10 — FACTORY INSTALLED OPTIONS*

***Note:*** *(Applicable to Digit 1, 2 T models only)*

00 No Factory-installed Options

0A Factory-installed Economizer

0B Oversized Motor

0C Downflow Economizer and Oversized Motor

0F Trane Communications Interface (TCI)

0G Downflow Economizer and TCI

0H TXV/Face-Split Evaporator

0J Oversized Motor and TXV Face-Split Evaporator

0K Downflow Economizer, Oversized Motor, and TXV Face-Split Evaporator

0L Downflow Economizer with TXV/Face-Split Evaporator

0M Reheat Coil

0N Downflow Economizer and Reheat Coil

0P Oversized Motor and Reheat Coil

0R Downflow Economizer, Oversized Motor and Reheat Coil

### *DIGIT 9 — HEATING CAPACITY*

***Note:*** *(Applicable to Digit 1, 2 Y models only)*

L Low Heat

H High Heat

V Modulating Gas Heat

### *DIGIT 10 — FACTORY INSTALLED OPTIONS* *15*

***Note:*** *(Applicable to Digit 1, 2 Y models only)*

0 Packed Stock, No Options

A Downflow Economizer 1

B Oversized Motor 6

C Downflow Economizer and Oversized Motor 1

F Trane Communications Interface (TCI) 17,6

G Downflow Economizer & TCI 1,17

H TXV/Face-Split Evaporator 14

J Oversized Motor and TXV/Face Split Evaporator 14

K Downflow Economizer, Oversized Motor, and TXV/Face Split Evaporator 1,14

L Downflow Economizer with TXV Face-Split Evaporator 6,14

M Reheat Coil 4,14

N Downflow Economizer and Reheat Coil 1,4,14

P Oversized Motor and Reheat Coil 1,4,14

R Downflow Economizer, Oversized Motor and Reheat Coil 1,4,14

### *DIGIT 11 — MINOR DESIGN SEQUENCE*

### *DIGIT 12 — SERVICE SEQUENCE*

***Note:*** *Explanation of Model Number Notes located on the following page.*

***Note:*** *Most Factory Installed Options (FIOPS) available for Downflow Air Discharge units only. Please verify with ordering system for availability.*

## Model Number Description

### Options

#### *Factory Installed Options 15

- 2" Pleated Filters 6,4
- Black Epoxy Pre-Coated Coils 6
- Dehumidification Option 4,11,14
- Differential Pressure Switches
- High Efficiency Motors 6
- Hinged Access Doors
- Novar Return Air Sensor 13
- Novar Unit Controls 16
- Powered or Unpowered Convenience Outlet 5
- Stainless Steel Heat Exchanger with 10-year warranty 6
- Supply and/or Return Air Smoke Detector 2,10
- Thermal Expansion Valve 14
- Through the Base Electrical Access
- Through the Base Electrical with Circuit Breaker 11,12
- Through the Base Electrical with Disconnect Switch 7,11,12

#### Factory* or Field Installed Options 15

- Barometric Relief
- Clogged Filter/Fan Failure Switch 2,6
- Discharge Air Sensing Kit 2,6
- Economizer (Downflow) 1
- Electric Heaters 6,8,12
- Frostat 2,4,6
- LonTalk® Communications Interface (LCI) 6
- Oversized Motors 6
- Reference or Comparative 3,6 Enthalpy
- Tool-less Hail Guards 6
- Trane Communications Interface (TCI) 17,6

#### Field Installed Options

- $CO_2$ Sensing
- Digital Display Zone Sensor
- Dual Thermistor Remote Zone Sensor
- Economizer (Horizontal)
- High Altitude Kit
- High and Low Static Drive Kits
- Humidity Sensor
- Low Static Drive
- LP Conversion Kit
- Manual Outside Air Damper
- Motorized Outside Air Dampers
- Powered Exhaust
- Quick Start Kit
- ReliaTel Options Module 9
- Remote Potentiometer
- Roof Curb (Downflow Only)
- Thermostat
- Ventilation Override Accessory 2
- Zone Sensors and Remote Zone Sensors

#### Model Number Notes

1. Some field set up required.
2. Requires ReliaTel options module.
3. Requires Economizer.
4. All 10th digit model numbers including reheat coil (M,N,P,R) require additional factory installed options; ReliaTel™ options module, Frostat, and 2" pleated filters.
5. Must be ordered with Through-the-Base Electrical option or Horizontal-Side Access and either Unit Mounted Disconnect or Circuit Breaker.
6. Available factory installed on downflow AND horizontal units. Verify with ordering system.
7. Cannot be fused.
8. Must be factory installed when using Through-the-Base Options.
9. ReliaTel Options Module is required when ordering the following accessories: Clogged Filter Switch, Fan Fail Switch, Discharge Air Sensing Kit, Frostat, Ventilation Override, Smoke Detector, Dehumidification and Modulating Gas Heat Furnace.
10. Option cannot be ordered in conjunction with field installed economizer on downflow units. Must be factory installed. The return air smoke detector may not fit up or work properly on the Voyager units when used in conjunction with 3rd party accessories (such as bolt on heat wheels, economizers, and power exhaust). Do not order the return air smoke detectors when using this type of accessory.
11. Unit mounted disconnect and circuit breakers are mutually exclusive of each other.
12. Through-the-base electrical option or Horizontal-Side Access must be ordered with either unit mounted disconnect or circuit breaker. When adding heat, must order Trane Electric Heat.
13. This option consists of the Novar return air sensor (Novar #WTS-10) that is wired and shipped in the return air section of the unit. The sensor ships with approximately 15' of extra wire for dropping down the return air duct (downflow only).
14. Available on high efficiency, downflow units only.
15. All Factory Installed Options are Built-to-Order. Check order services for estimated production cycle.
16. The Novar control option includes the following factory installed and wired devices: Novar ETM-2024 or Novar 3051 rooftop controller, fan proving switch, clogged filter or unit shutdown switch, Cool 1, Cool 2, Heat switch and discharge air sensor (Novar 2024 is downflow only).

***Note:*** *Option cannot be ordered in conjunction with FIOPS Smoke Detector option.*

17. TCI is for use with non-VariTrac systems and VariTrac systems.

***Note:*** **Most Factory Installed Options (FIOPS) available for Downflow Air Discharge units only. Please verify with ordering system for availability.*

# General Data

**Table 1. General Data — 12½-15 Tons**

| | 12½ Tons Downflow & Horizontal Units | | 15 Tons Downflow & Horizontal Units | |
|---|---|---|---|---|
| | TC*150D(3,4,W,K)* | YC*150D(3,4,W,K)* | TC*180B(3,4,W,K)* | YC*180B(3,4,W,K)* |
| **Cooling Performance[a]** | | | | |
| Gross Cooling Capacity | 150,000 | 150,000 | 182,000 | 182,000 |
| EER (Downflow/Horizontal)[b] | 9.8 | 9.6 | 9.9 | 9.7 |
| Nominal CFM / ARI Rated CFM | 5,000/4,400 | 5,000/4,000 | 6,000/5,300 | 6,000/5,300 |
| ARI Net Cooling Capacity | 142,000 | 142,000 | 174,000 | 174,000 |
| Integrated Part Load Value[c] | 10.5 | 10.3 | 10.2 | 10.0 |
| System Power (kW) | 14.49 | 14.79 | 17.57 | 17.94 |
| **Compressor** | | | | |
| Number/Type | 2/Scrolls | 2/Scrolls | 2/Scrolls | 2/Scrolls |
| **Sound** | | | | |
| Outdoor Sound Rating (BELS)[d] | 9.2 | 9.2 | 9.2 | 9.2 |
| **Outdoor Coil** | | | | |
| Type | Hi-Performance | Hi-Performance | Hi-Performance | Hi-Performance |
| Tube Size (in.) OD | 0.375 | 0.375 | 0.375 | 0.375 |
| Face Area (sq. ft.) | 24.18 | 24.18 | 27.12 | 27.12 |
| Rows/FPI | 2/16 | 2/16 | 3/16 | 3/16 |
| **Indoor Coil** | | | | |
| Type | Hi-Performance | Hi-Performance | Hi-Performance | Hi-Performance |
| Tube Size (in.) | 0.375 | 0.375 | 0.375 | 0.375 |
| Face Area (sq. ft.) | 17.50 | 17.50 | 17.50 | 17.50 |
| Rows/FPI | 2/15 | 2/15 | 2/15 | 2/15 |
| Refrigerant Control | Short Orifice | Short Orifice | Short Orifice | Short Orifice |
| Drain Connection Number/Size (in.) | 1/1.00 NPT | 1/1.00 NPT | 1/1.00 NPT | 1/1.00 NPT |
| **Outdoor Fan** | | | | |
| Type | Propeller | Propeller | Propeller | Propeller |
| Number Used/Diameter (in.) | 2/26 | 2/26 | 2/26 | 2/26 |
| Drive Type/No. Speeds | Direct/1 | Direct/1 | Direct/1 | Direct/1 |
| CFM | 10,600 | 10,600 | 10,200 | 10,200 |
| Number Motors/HP | 2/.50 | 2/.50 | 2/.50 | 2/.50 |
| Motor RPM | 1,100 | 1,100 | 1,100 | 1,100 |
| **Indoor Fan** | | | | |
| Type | FC Centrifugal | FC Centrifugal | FC Centrifugal | FC Centrifugal |
| Number Used/Diameter (in.) | 1/15x15 | 1/15x15 | 1/15x15 | 1/15x15 |
| Drive Type/Number Speeds | Belt/1 | Belt/1 | Belt/1 | Belt/1 |
| Number Motors | 1 | 1 | 1 | 1 |
| Motor HP (Standard/Oversized)[e] | 3.0/5.0 | 3.0/5.0 | 3.0/5.0 | 3.0/5.0 |
| Motor RPM (Standard/Oversized) | 1,740/3,450 | 1,740/3,450 | 1,740/3,450 | 1,740/3,450 |
| Motor Frame Size (Standard/Oversized) | 145T/145T | 145T/145T | 145T/145T | 145T/145T |

**continued on next page**

**Table 1. (continued) General Data — 12½-15 Tons**

| | 12½ Tons Downflow & Horizontal Units | | 15 Tons Downflow & Horizontal Units | |
|---|---|---|---|---|
| | TC*150D(3,4,W,K)* | YC*150D(3,4,W,K)* | TC*180B(3,4,W,K)* | YC*180B(3,4,W,K)* |
| **Filters** | | | | |
| Type Furnished(f) | Throwaway | Throwaway | Throwaway | Throwaway |
| Number Size Recommended | | | | |
| Downflow | (2)20x20x2,(4)20x25x2 | (2)20x20x2,(4)20x25x2 | (2)20x20x2,(4)20x25x2 | (2)20x20x2,(4)20x25x2 |
| Horizontal | (2)20x20x2,(4)20x25x2 | (2)20x20x2,(4)20x25x2 | (2)20x20x2,(4)20x25x2 | (2)20x20x2,(4)20x25x2 |
| **Refrigerant Charge** | | | | |
| Pounds of R-22(g) | 9.3/9.4 Circuit | 9.3/9.4 Circuit | 17.5/9.5 Circuit | 17.5/9.5 Circuit |

(a) Cooling Performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. ARI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Certified in accordance with the Unitary Large Equipment Certification Program, which is based on ARI Standard 340/360-93.
(b) EER is rated at ARI conditions and in accordance with ARI Standard 210/240 or 360.
(c) Integrated Part Load Value is rated in accordance with ARI Standard 210/240 or 360. Units are rated at 80°F ambient, 80°F entering dry bulb, and 67°F entering wet bulb at ARI rated cfm.
(d) Outdoor Sound Rating shown is tested in accordance with ARI Standard 270 or 370.
(e) For 380V/60Hz units, the oversized motor (Indoor Fan) is used as the standard motor. Refer to oversized motor data.
(f) An optional 2 inch pleated filter is also available.
(g) Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.

**Table 2. General Data - Heating - 12½ - 15 Tons**

| Heating Performance(a) (Gas/Electric Only) | 12½ Tons Downflow & Horizontal Units | | | 15 Tons Downflow & Horizontal Units | | |
|---|---|---|---|---|---|---|
| **Heating Models** | **Low** | **High** | **Modulating Turn Down = 5:1** | **Low** | **High** | **Modulating Turn Down = 5:1** |
| Heating Input (Btuh) | 150,000 | 250,000 | 350,000 | 250,000 | 350,000 | 350,000 |
| 1st Stage (Btu) | 100,000 | 175,000 | 70,000 | 175,000 | 250,000 | 70,000 |
| **Heating Output (Btuh)** | 122,000 | 203,000 | 283,500 | 203,000 | 284,000 | 283,500 |
| 1st Stage (Btu) | 81,000 | 142,000 | 56,700 | 142,000 | 203,000 | 56,700 |
| **AFUE% (DF/HF)(b)** | | | | | | |
| Downflow/Horizontal | 81.0/81.0 | 80.7/79.9 | 80.1/79.1 | 80.7/79.9 | 80.1/79.1 | 80.1/79.1 |
| **Steady State Efficiency%** | 81.0 | 81.0 | 81.0 | 81.0 | 81.0 | 81.0 |
| **No. Burners** | 1 | 1 | 1 | 1 | 1 | 1 |
| **No. Stages** | 2 | 2 | N/A | 2 | 2 | N/A |
| **Gas Supply Line Pressure (in w.c.)** | 2.5/14.0 | 2.5/14.0 | 2.5/14.0 | 2.5/14.0 | 2.5/14.0 | 2.5/14.1 |
| Natural or LP (minimum/maximum) | Natural or LP | Natural or LP | Natural Only | Natural or LP | Natural or LP | Natural Only |
| **Gas Connection Pipe Size (in.)** | 1/2 | 1/2 | 3/4 | 1/2 | 3/4 | 3/4 |

(a) Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standards Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
(b) AFUE is rated in accordance with DOE test procedures.

**Table 3. General Data — 17½-20 Tons**

| | 17½ Tons Downflow & Horizontal Units | | 20 Tons Downflow & Horizontal Units | |
|---|---|---|---|---|
| | TC*210C(3,4,W,K)* | YC*210C(3,4,W,K)* | TC*240B(3,4,W,K)* | YC*240B(3,4,W,K)* |
| **Cooling Performance[a]** | | | | |
| Gross Cooling Capacity | 210,000 | 210,000 | 242,000 | 242,000 |
| EER (Downflow/Horizontal)[b] | 9.8 | 9.6 | 9.7 | 9.5 |
| Nominal CFM / ARI Rated CFM | 7,000/5,800 | 7,000/5,800 | 8,000/7,000 | 8,000/7,000 |
| ARI Net Cooling Capacity | 196,000 | 196,000 | 232,000 | 232,000 |
| Integrated Part Load Value[c] | 10.0 | 9.8 | 10.0 | 9.8 |
| System Power (kW) | 20.0 | 20.41 | 23.91 | 24.42 |
| **Compressor** | | | | |
| Number/Type | 2/Scrolls | 2/Scrolls | 2/Scrolls | 2/Scrolls |
| **Sound** | | | | |
| Outdoor Sound Rating (BELS)[d] | 9.4 | 9.4 | 9.4 | 9.4 |
| **Outdoor Coil** | | | | |
| Type | Hi-Performance | Hi-Performance | Hi-Performance | Hi-Performance |
| Tube Size (in.) OD | 0.375 | 0.375 | 0.375 | 0.375 |
| Face Area (sq. ft.) | 27.12 | 27.12 | 35.30 | 35.30 |
| Rows/FPI | 3/16 | 3/16 | 3/16 | 3/16 |
| **Indoor Coil** | | | | |
| Type | Hi-Performance | Hi-Performance | Hi-Performance | Hi-Performance |
| Tube Size (in.) | 0.375 | 0.375 | 0.375 | 0.375 |
| Face Area (sq. ft.) | 17.50 | 17.50 | 26.00 | 26.00 |
| Rows/FPI | 4/15 | 4/15 | 2/15 | 2/15 |
| Refrigerant Control | Short Orifice | Short Orifice | Short Orifice | Short Orifice |
| Drain Connection Number/Size (in.) | 1/1.00 NPT | 1/1.00 NPT | 1/1.00 NPT | 1/1.00 NPT |
| **Outdoor Fan** | | | | |
| Type | Propeller | Propeller | Propeller | Propeller |
| Number Used/Diameter (in.) | 2/26 | 2/26 | 2/26 | 2/26 |
| Drive Type/No. Speeds | Direct/1 | Direct/1 | Direct/1 | Direct/1 |
| CFM | 13,400 | 13,400 | 14,600 | 14,600 |
| Number Motors/HP | 2/1.0 | 2/1.0 | 2/1.0 | 2/1.0 |
| Motor RPM | 1,125 | 1,125 | 1,125 | 1,125 |
| **Indoor Fan** | | | | |
| Type | FC Centrifugal | FC Centrifugal | FC Centrifugal | FC Centrifugal |
| Number Used/Diameter (in.) | 1/15x15 | 1/15x15 | 1/18x18 | 1/18x18 |
| Drive Type/Number Speeds | Belt/1 | Belt/1 | Belt/1 | Belt/1 |
| Number Motors | 1 | 1 | 1 | 1 |
| Motor HP (Standard/Oversized)[e] | 5.0/7.5 | 5.0/7.5 | 5.0/7.5 | 5.0/7.5 |
| Motor RPM (Standard/Oversized) | 3,450/3,470 | 3,450/3,470 | 3,450/3,470 | 3,450/3,470 |
| Motor Frame Size (Standard/Oversized) | 145T/184T | 145T/184T | 145T/184T | 145T/184T |

**continued on next page**

**Table 3. (continued) General Data — 17½-20 Tons**

| | 17½ Tons Downflow & Horizontal Units | | 20 Tons Downflow & Horizontal Units | |
|---|---|---|---|---|
| | TC*210C(3,4,W,K)* | YC*210C(3,4,W,K)* | TC*240B(3,4,W,K)* | YC*240B(3,4,W,K)* |
| **Filters** | | | | |
| Type Furnished[f] | Throwaway | Throwaway | Throwaway | Throwaway |
| Number Size Recommended | | | | |
| Downflow | (2)20x20x2,(4)20x25x2 | (2)20x20x2,(4)20x25x2 | (4)20x20x2,(4)20x25x2 | (4)20x20x2,(4)20x25x2 |
| Horizontal | (2)20x20x2,(4)20x25x2 | (2)20x20x2,(4)20x25x2 | (8)20x25x2 | (8)20x25x2 |
| **Refrigerant Charge** | | | | |
| Pounds of R-22[g] | | | | |
| Downflow | 21.0/14.3 Circuit | 21.0/14.3 Circuit | 18.9/21.0 Circuit | 18.9/21.0 Circuit |
| Horizontal | 21.5/14.5 Circuit | 21.0/14.5 Circuit | | |

(a) Cooling Performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. ARI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Certified in accordance with the Unitary Large Equipment Certification Program, which is based on ARI Standard 340/360-93.
(b) EER is rated at ARI conditions and in accordance with ARI Standard 210/240 or 360.
(c) Integrated Part Load Value is rated in accordance with ARI Standard 210/240 or 360. Units are rated at 80°F ambient, 80°F entering dry bulb, and 67°F entering wet bulb at ARI rated cfm.
(d) Outdoor Sound Rating shown is tested in accordance with ARI Standard 270 or 370.
(e) For 380V/60Hz units, the oversized motor (Indoor Fan) is used as the standard motor. Refer to oversized motor data.
(f) An optional 2 inch pleated filter is also available.
(g) Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.

**Table 4. General Data - Heating - 17½-20 Tons**

| Heating Performance[a] (Gas/Electric Only) | 17½ Tons Downflow & Horizontal Units | | | 20 Tons Downflow & Horizontal Units | | |
|---|---|---|---|---|---|---|
| **Heating Models** | **Low** | **High** | **Modulating Turn Down = 5:1** | **Low** | **High** | **Modulating Turn Down = 5:1** |
| **Heating Input (Btuh)** | 250,000 | 350,000 | 350,000 | 250,000 | 400,000 | 350,000 |
| 1st Stage (Btu) | 175,000 | 250,000 | 70,000 | 175,000 | 300,000 | 70,000 |
| **Heating Output (Btuh)** | 203,000 | 284,000 | 283,500 | 203,000 | 324,000 | 283,500 |
| 1st Stage (Btu) | 142,000 | 203,000 | 56,700 | 142,000 | 243,000 | 56,700 |
| **AFUE% [b]** | | | | | | |
| Downflow/Horizontal | 80.7/79.9 | 80.1/79.1 | 80.1/79.1 | 80.2/81.0 | 79.8/79.7 | 80.1/79.1 |
| **Steady State Efficiency%** | 81.0 | 81.0 | 81.0 | 81.0 | 81.0 | 81.0 |
| **No. Burners** | 1 | 1 | 1 | 1 | 1 | 1 |
| **No. Stages** | 2 | 2 | N/A | 2 | 2 | N/A |
| **Gas Supply Line Pressure (in w.c.)** | 2.5/14.0 | 2.5/14.0 | 2.5/14.7 | 2.5/14.0 | 2.5/14.0 | 2.5/14.7 |
| Natural or LP (minimum/maximum) | Natural or LP | Natural or LP | Natural Only | Natural or LP | Natural or LP | Natural Only |
| **Gas Connection Pipe Size (in.)** | 1/2 | 3/4 | 3/4 | 1/2 | 3/4 | 3/4 |

(a) Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standards Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
(b) AFUE is rated in accordance with DOE test procedures.
*Indicates both downflow/horizontal units.

**Table 5. General Data — 25 Tons**

| | 25 Tons Downflow & Horizontal Units |
|---|---|
| | T/YC*300B(3,4,W,K)* |
| **Cooling Performance[a]** | |
| Gross Cooling Capacity | 290,000 |
| EER (Downflow/Horizontal)[b] | 9.7 |
| Nominal CFM / ARI Rated CFM | 10,000/8,750 |
| ARI Net Cooling Capacity | 272,000 |
| Integrated Part Load Value[c] | 9.8 |
| System Power (kW) | 28.05 |
| **Compressor** | |
| Number/Type | 2/Scrolls |
| **Sound** | |
| Outdoor Sound Rating (BELS)[d] | 9.4 |
| **Outdoor Coil** | |
| Type | Hi-Performance |
| Tube Size (in.) OD | 0.375 |
| Face Area (sq. ft.) | 36.43 |
| Rows/FPI | 2/16 |
| **Indoor Coil** | |
| Type | Hi-Performance |
| Tube Size (in.) | 0.375 |
| Face Area (sq. ft.) | 26.00 |
| Rows/FPI | 3/15 |
| Refrigerant Control | Short Orifice |
| Drain Connection Number/Size (in.) | 1/1.00 NPT |
| **Outdoor Fan** | |
| Type | Propeller |
| Number Used/Diameter (in.) | 2/28 |
| Drive Type/No. Speeds | Direct/1 |
| CFM | 16,700 |
| Number Motors/HP | 2/1.0 |
| Motor RPM | 1,125 |
| **Indoor Fan** | |
| Type | FC Centrifugal |
| Number Used/Diameter (in.) | 1/18x18 |
| Drive Type/Number Speeds | Belt/1 |
| Number Motors | 1 |
| Motor HP (Standard/Oversized)[e] | 7.5/N/A |
| Motor RPM (Standard/Oversized) | 3,470/N/A |
| Motor Frame Size (Standard/ Oversized) | 184T/N/A |

**continued on next page**

**Table 5. (continued) General Data — 25 Tons**

| | 25 Tons Downflow & Horizontal Units |
|---|---|
| | T/YC*300B(3,4,W,K)* |
| **Filters** | |
| Type Furnished[f] | Throwaway |
| Number Size Recommended | |
| Downflow | (4)20x20x2,(4)20x25x2 |
| Horizontal | (8)20x25x2 |
| **Refrigerant Charge** | |
| Pounds of R-22[g] | |
| Downflow | |
| Horizontal | 17.0/Circuit |

(a) Cooling Performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. ARI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Certified in accordance with the Unitary Large Equipment Certification Program, which is based on ARI Standard 340/360-93.
(b) EER is rated at ARI conditions and in accordance with ARI Standard 210/240 or 360.
(c) Integrated Part Load Value is rated in accordance with ARI Standard 210/240 or 360. Units are rated at 80°F ambient, 80°F entering dry bulb, and 67°F entering wet bulb at ARI rated cfm.
(d) Outdoor Sound Rating shown is tested in accordance with ARI Standard 270 or 370.
(e) For 380V/60Hz units, the oversized motor (Indoor Fan) is used as the standard motor. Refer to oversized motor data.
(f) An optional 2 inch pleated filter is also available.
(g) Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.

**Table 6. General Data - Heating - 25 Tons**

| Heating Performance[a] (Gas/Electric Only) | 25 Tons Downflow & Horizontal Units | | |
|---|---|---|---|
| **Heating Models** | **Low** | **High** | **Modulating Turn Down = 5:1** |
| **Heating Input (Btuh)** | 250,000 | 400,000 | 350,000 |
| 1st Stage (Btu) | 175,000 | 300,000 | 70,000 |
| **Heating Output (Btuh)** | 203,000 | 324,000 | 283,500 |
| 1st Stage (Btu) | 142,000 | 243,000 | 56,700 |
| **AFUE% [b]** | | | |
| Downflow/Horizontal | 80.2/81.0 | 79.8/79.7 | 80.1/79.1 |
| **Steady State Efficiency%** | 81.4/81.0 | 80.8/81.0 | 81.0 |
| **No. Burners** | 1 | 1 | 1 |
| **No. Stages** | 2 | 2 | N/A |
| **Gas Supply Line Pressure (in w.c.)** | 2.5/14.0 | 2.5/14.0 | 2.5/14.7 |
| Natural or LP (minimum/maximum) | Natural or LP | Natural or LP | Natural Only |
| **Gas Connection Pipe Size (in.)** | 1/2 | 3/4 | 3/4 |

(a) Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standards Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
(b) AFUE is rated in accordance with DOE test procedures.
*Indicates both downflow/horizontal units.

**Table 7. General Data — 12½ - 15 Tons**

| | 12½ Tons Downflow & Horizontal Units | 15 Tons Downflow & Horizontal Units |
|---|---|---|
| | T/YC*151C(3,4,W,K)*[a] | T/YC*181C(3,4,W,K)*[b] |
| **Cooling Performance[c]** | | |
| Gross Cooling Capacity | 154,000 | 189,000 |
| EER[d] | 11.30 | 11.50 |
| Nominal CFM / ARI Rated CFM | 5,000/4,400 | 6,000/5,300 |
| ARI Net Cooling Capacity | 146,000 | 180,000 |
| Integrated Part Load Value[e] | 11.5 | 13.3 |
| System Power (kW) | 12.92 | 15.65 |
| **Compressor** | | |
| Number/Type | 2/Scrolls | 2/Scrolls |
| **Sound** | | |
| Outdoor Sound Rating (BELS)[f] | 9.2 | 9.2 |
| **Outdoor Coil** | | |
| Type | Hi-Performance | Hi-Performance |
| Tube Size (in.) OD | 0.375 | 0.375 |
| Face Area (sq. ft.) | 27.12 | 35.30 |
| Rows/FPI | 3/16 | 3/16 |
| **Indoor Coil** | | |
| Type | Hi-Performance | Hi-Performance |
| Tube Size (in.) | 0.375 | 0.375 |
| Face Area (sq. ft.) | 17.50 | 26.00 |
| Rows/FPI | 3/15 | 3/15 |
| Refrigerant Control | Short Orifice | Short Orifice |
| Drain Connection Number/Size (in.) | 1/1.00 NPT | 1/1.00 NPT |
| **Outdoor Fan** | | |
| Type | Propeller | Propeller |
| Number Used/Diameter (in.) | 2/26 | 2/26 |
| Drive Type/No. Speeds | Direct/1 | Direct/1 |
| CFM | 10,400 | 11,000 |
| Number Motors/HP | 2/.50 | 2/.50 |
| Motor RPM | 1,100 | 1,100 |
| **Indoor Fan** | | |
| Type | FC Centrifugal | FC Centrifugal |
| Number Used/Diameter (in.) | 1/15x15 | 1/18x18 |
| Drive Type/Number Speeds | Belt/1 | Belt/1 |
| Number Motors | 1 | 1 |
| Motor HP (Standard/Oversized)[g] | 3.0/5.0 | 3.0/5.0 |
| Motor RPM (Standard/Oversized) | 1,740/3,450 | 1,740/3,450 |
| Motor Frame Size (Standard/Oversized) | 145T/145T | 145T/145T |
| **Filters** | | |
| Type Furnished[h] | Throwaway | Throwaway |
| Number Size Recommended | | |
| Downflow | (2)20x20x2,(4)20x25x2 | (4)20x20x2,(4)20x25x2 |
| Horizontal | (2)20x20x2,(4)20x25x2 | (8)20x25x2 |

**continued on next page**

**Table 7. (continued) General Data — 12½ - 15 Tons**

| | 12½ Tons Downflow & Horizontal Units | 15 Tons Downflow & Horizontal Units |
|---|---|---|
| | T/YC*151C(3,4,W,K)*(a) | T/YC*181C(3,4,W,K)*(b) |
| **Optional Hot Gas Reheat Coil** | | |
| Type | Hi-Performance | Hi-Performance |
| Tube Size (in.) OD | 0.375 | 0.375 |
| Face Area (sq. ft) | 17.5 | 26 |
| Rows/FPI | 1/16 | 1/16 |
| **Refrigerant Charge** Pounds of R-22(i) | | |
| Standard | 15.0/13.8 | 25.0/13.0 |
| Optional Hot Gas Reheat Coil | 15.3/14.3 | 27.8/11.4 |

(a) TXV/Face-Split Option (Downflow Only) YCD151C3,4,W (EER):11.3; (System Power kW): 12.92; (Refrigerant Control): Expansion Valve; (Refrigerant Charge): 13.4/12.0.
(b) TXV/Face-Split Option (Downflow Only) YCD181C3,4,W (EER):11.4; (System Power kW): 15.79; (Refrigerant Control): Expansion Valve; (Refrigerant Charge): 26.0/12.0.
(c) Cooling Performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. ARI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Certified in accordance with the Unitary Large Equipment Certification Program, which is based on ARI Standard 340/360-93.
(d) EER is rated at ARI conditions and in accordance with ARI Standard 210/240 or 360.
(e) Integrated Part Load Value is rated in accordance with ARI Standard 210/240 or 360. Units are rated at 80°F ambient, 80°F entering dry bulb, and 67°F entering wet bulb at ARI rated cfm.
(f) Outdoor Sound Rating shown is tested in accordance with ARI Standard 270 or 370.
(g) For 380V/60Hz units, the oversized motor (Indoor Fan) is used as the standard motor. Refer to oversized motor data.
(h) An optional 2 inch pleated filter is also available.
(i) Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.

**Table 8. General Data — Heating —12½ - 15 Tons**

| Heating Performance(a) (Gas/Electric Only) | 12½ Tons Downflow & Horizontal Units | | | 15 Tons Downflow & Horizontal Units | | |
|---|---|---|---|---|---|---|
| | T/YC*151C(3,4,W,K)*(b) | | | T/YC*181C(3,4,W,K)*(c) | | |
| **Heating Models** | **Low** | **High** | **Modulating Turn Down = 5:1** | **Low** | **High** | **Modulating Turn Down = 5:1** |
| **Heating Input (Btuh)** | 150,000 | 250,000 | 350,000 | 250,000 | 350,000 | 390,000 |
| 1st Stage (Btu) | 100,000 | 175,000 | 70,000 | 175,000 | 250,000 | 80,000 |
| **Heating Output (Btuh)** | 122,000 | 203,000 | 283,500 | 203,000 | 284,000 | 316,000 |
| 1st Stage (Btu) | 81,000 | 142,000 | 56,700 | 142,000 | 203,000 | 64,800 |
| **AFUE %(d)** | | | | | | |
| Downflow/Horizontal | 81.0/81.0 | 80.7/79.9 | 80.1/79.1 | 80.7/79.9 | 80.1/79.1 | 80.1/79.1 |
| **Steady State Efficiency %** | 81.0 | 81.0 | 81.0 | 81.0 | 81.0 | 81.0 |
| **No. Burners** | 1 | 1 | 1 | 1 | 1 | 1 |
| **No. Stages** | 2 | 2 | N/A | 2 | 2 | N/A |
| **Gas Supply Line Pressure (in w.c.)** | 2.5/14.0 | 2.5/14.0 | 2.5/14.0 | 2.5/14.0 | 2.5/14.0 | 2.5/14.1 |
| Natural or LP (minimum/maximum) | Natural or LP | Natural or LP | Natural Only | Natural or LP | Natural or LP | Natural Only |
| **Gas Connection Pipe Size (in.)** | 1/2 | 1/2 | 3/4 | 1/2 | 3/4 | 3/4 |

(a) Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standards Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
(b) TXV/Face-Split Option (Downflow Only) YCD151C3,4,W (EER):11.3; (System Power kW): 12.92; (Refrigerant Control): Expansion Valve; (Refrigerant Charge): 13.4/12.0.
(c) TXV/Face-Split Option (Downflow Only) YCD181C3,4,W (EER):11.4; (System Power kW): 15.79; (Refrigerant Control): Expansion Valve; (Refrigerant Charge): 26.0/12.0.
(d) AFUE is rated in accordance with DOE test procedures.

**Table 9. General Data — 17½, 20, 25 Tons**

| | 17½ Tons Downflow & Horizontal Units | 20 Tons Downflow & Horizontal Units | 25 Tons Downflow & Horizontal Units |
|---|---|---|---|
| | T/YC*211C(3,4,W,K)* | T/YC*241C(3,4,W,K)*[a] | T/YC*301C(3,4,W,K)* |
| **Cooling Performance[b]** | | | |
| Gross Cooling Capacity | 220,000 | 268,000 | 300,000 |
| EER[c] | 11.0 | 10.6 | 10.4 |
| Nominal CFM / ARI Rated CFM | 7,000/6,200 | 8,000/7,000 | 10,000/8,750 |
| ARI Net Cooling Capacity | 208,000 | 250,000 | 278,000 |
| Integrated Part Load Value[d] | 12.0 | 11.2 | 11.0 |
| System Power (kW) | 18.91 | 23.58 | 26.73 |
| **Compressor** | | | |
| Number/Type | 2/Scrolls | 2/Scrolls | 2/Scrolls |
| **Sound** | | | |
| Outdoor Sound Rating (BELS)[e] | 9.4 | 9.4 | 9.4 |
| **Outdoor Coil** | | | |
| Type | Hi-Performance | Hi-Performance | Hi-Performance |
| Tube Size (in.) OD | 0.375 | 0.375 | 0.375 |
| Face Area (sq. ft.) | 35.30 | 35.30 | 35.30 |
| Rows/FPI | 3/16 | 3/16 | 3/16 |
| **Indoor Coil** | | | |
| Type | Hi-Performance | Hi-Performance | Hi-Performance |
| Tube Size (in.) | 0.375 | 0.375 | 0.375 |
| Face Area (sq. ft.) | 26.00 | 26.00 | 26.00 |
| Rows/FPI | 4/15 | 4[f]/15 | 4/15 |
| Refrigerant Control | Short Orifice | Short Orifice | Short Orifice |
| Drain Connection Number/Size (in.) | 1/1.0 NPT | 1/1.0 NPT | 1/1.0 NPT |
| **Outdoor Fan** | | | |
| Type | Propeller | Propeller | Propeller |
| Number Used/Diameter (in.) | 2/26 | 2/26 | 2/26 |
| Drive Type/No. Speeds | Direct/1 | Direct/1 | Direct/1 |
| CFM | 12,800 | 13,700 | 13,700 |
| Number Motors/HP | 2/1.0 | 2/1.0 | 2/1.0 |
| Motor RPM | 1,125 | 1,125 | 1,125 |
| **Indoor Fan** | | | |
| Type | FC Centrifugal | FC Centrifugal | FC Centrifugal |
| Number Used/Diameter (in.) | 1/18x18 | 1/18x18 | 1/18x18 |
| Drive Type/Number Speeds | Belt/1 | Belt/1 | Belt/1 |
| Number Motors | 1 | 1 | 1 |
| Motor HP (Standard/Oversized) | 5.0/7.5 | 5.0/7.5 | 7.5 |
| Motor RPM (Standard/Oversized) | 3,450/3,470 | 3,450/3,470 | 3,470 |
| Motor Frame Size (Standard/ Oversized) | 145T/184T | 145T/184T | 184T |
| **Filters** | | | |
| Type Furnished[g] | Throwaway | Throwaway | Throwaway |
| Number Size Recommended | | | |
| Downflow | (4)20x20x2,(4)20x25x2 | (4)20x20x2,(4)20x25x2 | (4)20x20x2,(4)20x25x2 |
| Horizontal | (8)20x25x2 | (8)20x25x2 | (8)20x25x2 |

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**Table 9. (continued) General Data — 17½, 20, 25 Tons**

| | 17½ Tons Downflow & Horizontal Units | 20 Tons Downflow & Horizontal Units | 25 Tons Downflow & Horizontal Units |
|---|---|---|---|
| | T/YC*211C(3,4,W,K)* | T/YC*241C(3,4,W,K)*(a) | T/YC*301C(3,4,W,K)* |
| **Optional Hot Gas Reheat Coil** | | | |
| Type | — | Hi-Performance | — |
| Tube Size (in.) OD | — | 0.375 | — |
| Face Area (sq. ft) | — | 26 | — |
| Rows/FPI | — | 1/16 | — |
| **Refrigerant Charge** Pounds of R-22(h) | | | |
| Standard | 25.7/12.5 | 21.8/21.8 | 24.5/24.5 |
| Optional Hot Gas Reheat Coil | — | 21.3/21.0 | — |

(a) TXV/Face-Split Option (Downflow Only) YCD241C3,4,W (Gross Cooling Capacity):259,000; (ARI Net Cooling Capacity): 244,000; (System Power kW): 23.02; (Refrigerant Control): Expansion Valve; (Refrigerant Charge): 21.5/22.2
(b) Cooling Performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. ARI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Certified in accordance with the Unitary Large Equipment Certification Program, which is based on ARI Standard 340/360-93.
(c) EER is rated at ARI conditions and in accordance with ARI Standard 210/240 or 360.
(d) Integrated Part Load Value is rated in accordance with ARI Standard 210/240 or 360. Units are rated at 80°F ambient, 80°F entering dry bulb, and 67°F entering wet bulb at ARI rated cfm.
(e) Outdoor Sound Rating shown is tested in accordance with ARI Standard 270 or 370.
(f) On Hot Gas Reheat units, Indoor Coil = 3 rows.
(g) An optional 2 inch pleated filter is also available.
(h) Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.

**Table 10. General Data — Heating —17½, 20, 25 Tons**

| Heating Performance(a) (Gas/Electric Only) | 17½ Tons Downflow & Horizontal Units | | | 20 Tons Downflow & Horizontal Units | | | 25 Tons Downflow & Horizontal Units | | |
|---|---|---|---|---|---|---|---|---|---|
| | T/YC*211C(3,4,W,K)* | | | T/YC*241C(3,4,W,K)*(b) | | | T/YC*301C(3,4,W,K)* | | |
| **Heating Models** | **Low** | **High** | **Modulating Turn Down = 5:1** | **Low** | **High** | **Modulating Turn Down = 5:1** | **Low** | **High** | **Modulating Turn Down = 5:1** |
| **Heating Input (Btuh)** | 250,000 | 350,000 | 350,000 | 250,000 | 400,000 | 350,000 | 250,000 | 400,000 | 350,000 |
| 1st Stage (Btu) | 175,000 | 250,000 | 70,000 | 175,000 | 300,000 | 70,000 | 175,000 | 300,000 | 70,000 |
| **Heating Output (Btuh)** | 203,000 | 284,000 | 283,500 | 203,000 | 324,000 | 283,500 | 203,000 | 324.000 | 283,500 |
| 1st Stage (Btu) | 142,000 | 203,000 | 56,700 | 142,000 | 243,000 | 56,700 | 142,000 | 243,000 | 56,700 |
| **AFUE %(c)** | | | | | | | | | |
| Downflow/Horizontal | 80.2/81.0 | 79.3/79.7 | 80.1/79.1 | 80.2/81.0 | 79.8/79.7 | 80.1/79.1 | 80.2/81.0 | 79.8/79.7 | 80.1/79.1 |
| **Steady State Efficiency %** | 81.0 | 81.0 | 81.0 | 81.0 | 81.0 | 81.0 | 81.0 | 81.0 | 81.0 |
| **No. Burners** | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| **No. Stages** | 2 | 2 | N/A | 2 | 2 | N/A | 2 | 2 | N/A |
| **Gas Supply Line Pressure (in w.c.)** | 2.5/14.0 | 2.5/14.0 | 2.5/14.7 | 2.5/14.0 | 2.5/14.0 | 2.5/14.7 | 2.5/14.0 | 2.5/14.0 | 2.5/14.7 |
| Natural or LP (minimum/ maximum) | Natural or LP | Natural or LP | Natural Only | Natural or LP | Natural or LP | Natural Only | Natural or LP | Natural or LP | Natural Only |
| **Gas Connection Pipe Size (in.)** | 1/2 | 3/4 | 3/4 | 1/2 | 3/4 | 3/4 | 1/2 | 3/4 | 3/4 |

(a) Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standards Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
(b) TXV/Face-Split Option (Downflow Only) YCD241C3,4,W (Gross Cooling Capacity):259,000; (ARI Net Cooling Capacity): 244,000; (System Power kW): 23.02; (Refrigerant Control): Expansion Valve; (Refrigerant Charge): 21.5/22.2
(c) AFUE is rated in accordance with DOE test procedures.
*Indicates both downflow/horizontal units.

# Performance Data

**Table 11. Gross Cooling Capacities 12½ Tons Three Phase Standard Efficiency T/YC*150D3,4,W,K**

| Air Flow CFM | Ent DB (°F) | Ambient Temperature 85 Entering Wet Bulb 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC | 95 Entering Wet Bulb 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC | 105 Entering Wet Bulb 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4500 | 75 | 135.0 | 108.0 | 153.0 | 86.0 | 162.0 | 59.3 | 126.0 | 103.0 | 146.0 | 82.0 | 158.0 | 56.7 | 116.0 | 98.2 | 138.0 | 77.7 | 152.0 | 53.8 |
| | 80 | 136.0 | 128.0 | 154.0 | 105.0 | 163.0 | 79.5 | 127.0 | 123.0 | 147.0 | 101.0 | 159.0 | 76.5 | 117.0 | 117.0 | 138.0 | 97.0 | 153.0 | 73.2 |
| | 85 | 142.0 | 142.0 | 154.0 | 123.0 | 164.0 | 95.9 | 135.0 | 135.0 | 147.0 | 120.0 | 159.0 | 94.2 | 127.0 | 127.0 | 138.0 | 116.0 | 153.0 | 91.7 |
| | 90 | 150.0 | 150.0 | 155.0 | 142.0 | 166.0 | 112.0 | 144.0 | 144.0 | 148.0 | 139.0 | 161.0 | 111.0 | 137.0 | 137.0 | 139.0 | 136.0 | 154.0 | 109.0 |
| 5000 | 75 | 139.0 | 114.0 | 155.0 | 89.8 | 163.0 | 60.4 | 129.0 | 109.0 | 149.0 | 85.4 | 159.0 | 57.9 | 120.0 | 104.0 | 141.0 | 89.5 | 154.0 | 55.0 |
| | 80 | 140.0 | 136.0 | 156.0 | 109.0 | 164.0 | 81.3 | 130.0 | 130.0 | 149.0 | 106.0 | 160.0 | 79.1 | 123.0 | 123.0 | 141.0 | 102.0 | 155.0 | 75.8 |
| | 85 | 147.0 | 147.0 | 157.0 | 129.0 | 166.0 | 98.2 | 141.0 | 141.0 | 150.0 | 126.0 | 161.0 | 96.8 | 133.0 | 133.0 | 141.0 | 123.0 | 155.0 | 94.8 |
| | 90 | 155.0 | 155.0 | 158.0 | 148.0 | 167.0 | 115.0 | 149.0 | 149.0 | 151.0 | 147.0 | 163.0 | 115.0 | 143.0 | 143.0 | 143.0 | 143.0 | 157.0 | 114.0 |
| 5500 | 75 | 142.0 | 120.0 | 157.0 | 91.3 | 164.0 | 61.5 | 132.0 | 115.0 | 151.0 | 88.8 | 160.0 | 59.0 | 122.0 | 110.0 | 143.0 | 84.2 | 155.0 | 56.1 |
| | 80 | 143.0 | 143.0 | 158.0 | 112.0 | 165.0 | 82.0 | 135.0 | 135.0 | 152.0 | 110.0 | 161.0 | 80.4 | 127.0 | 127.0 | 143.0 | 107.0 | 156.0 | 78.3 |
| | 85 | 152.0 | 152.0 | 159.0 | 133.0 | 167.0 | 99.9 | 145.0 | 145.0 | 152.0 | 132.0 | 163.0 | 99.1 | 138.0 | 138.0 | 144.0 | 129.0 | 157.0 | 97.4 |
| | 90 | 159.0 | 159.0 | 160.0 | 154.0 | 169.0 | 118.0 | 153.0 | 153.0 | 153.0 | 153.0 | 164.0 | 118.0 | 147.0 | 147.0 | 147.0 | 147.0 | 158.0 | 117.0 |
| 6000 | 75 | 145.0 | 125.0 | 158.0 | 93.3 | 165.0 | 62.5 | 135.0 | 120.0 | 153.0 | 91.2 | 161.0 | 60.1 | 125.0 | 115.0 | 145.0 | 87.3 | 156.0 | 57.2 |
| | 80 | 147.0 | 147.0 | 159.0 | 115.0 | 166.0 | 82.9 | 140.0 | 140.0 | 153.0 | 114.0 | 162.0 | 81.7 | 132.0 | 132.0 | 145.0 | 111.0 | 157.0 | 79.3 |
| | 85 | 155.0 | 155.0 | 161.0 | 137.0 | 168.0 | 101.1 | 149.0 | 149.0 | 154.0 | 137.0 | 164.0 | 101.0 | 142.0 | 142.0 | 146.0 | 135.0 | 158.0 | 99.8 |
| | 90 | 161.0 | 161.0 | 162.0 | 159.0 | 170.0 | 120.0 | 156.0 | 156.0 | 156.0 | 156.0 | 166.0 | 121.0 | 150.0 | 150.0 | 150.0 | 150.0 | 160.0 | 121.0 |

| Air Flow CFM | Ent DB (°F) | Ambient Temperature 115 Entering Wet Bulb 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC |
|---|---|---|---|---|---|---|---|
| 4500 | 75 | 106.0 | 93.1 | 127.0 | 80.0 | 145.0 | 50.5 |
| | 80 | 110.0 | 110.0 | 128.0 | 92.2 | 145.0 | 69.6 |
| | 85 | 120.0 | 120.0 | 128.0 | 111.0 | 146.0 | 88.5 |
| | 90 | 130.0 | 130.0 | 130.0 | 130.0 | 146.0 | 107.0 |
| 5000 | 75 | 109.0 | 98.9 | 131.0 | 85.1 | 147.0 | 51.6 |
| | 80 | 115.0 | 115.0 | 131.0 | 97.5 | 147.0 | 72.2 |
| | 85 | 125.0 | 125.0 | 131.0 | 118.0 | 148.0 | 91.9 |
| | 90 | 135.0 | 135.0 | 135.0 | 135.0 | 149.0 | 111.0 |
| 5500 | 75 | 112.0 | 104.0 | 133.0 | 89.9 | 148.0 | 52.9 |
| | 80 | 119.0 | 119.0 | 134.0 | 102.0 | 149.0 | 74.7 |
| | 85 | 130.0 | 130.0 | 134.0 | 125.0 | 150.0 | 95.0 |
| | 90 | 140.0 | 140.0 | 140.0 | 140.0 | 151.0 | 116.0 |
| 6000 | 75 | 115.0 | 110.0 | 136.0 | 82.8 | 149.0 | 54.0 |
| | 80 | 123.0 | 123.0 | 136.0 | 107.0 | 150.0 | 76.5 |
| | 85 | 134.0 | 134.0 | 137.0 | 131.0 | 151.0 | 97.8 |
| | 90 | 143.0 | 143.0 | 143.0 | 143.0 | 152.0 | 119.0 |

**Notes:**

1. All capacities shown are gross and have not considered indoor fan heat. To obtain **NET** cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBH = Total Gross Capacity
3. SHC = Sensible Heat Capacity

*Indicates both downflow and horizontal units.

**Table 12. Gross Cooling Capacities 15 Tons Three Phase Standard Efficiency T/YC*180B3,4,W,K**

| Air Flow CFM | Ent DB (°F) | Ambient Temperature 85 Entering Wet Bulb 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC | 95 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC | 105 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5400 | 75 | 168.0 | 133.0 | 188.0 | 106.0 | 198.0 | 73.0 | 157.0 | 128.0 | 181.0 | 101.0 | 194.0 | 70.4 | 147.0 | 122.0 | 172.0 | 97.0 | 187.0 | 67.3 |
| | 80 | 168.0 | 156.0 | 188.0 | 128.0 | 199.0 | 97.3 | 155.0 | 155.0 | 181.0 | 125.0 | 195.0 | 94.3 | 149.0 | 143.0 | 172.0 | 120.0 | 188.0 | 90.8 |
| | 85 | 174.0 | 174.0 | 189.0 | 150.0 | 200.0 | 117.0 | 166.0 | 166.0 | 182.0 | 147.0 | 196.0 | 115.0 | 158.0 | 158.0 | 172.0 | 143.0 | 189.0 | 113.0 |
| | 90 | 184.0 | 184.0 | 190.0 | 172.0 | 202.0 | 136.0 | 177.0 | 177.0 | 183.0 | 170.0 | 197.0 | 135.0 | 170.0 | 170.0 | 170.0 | 170.0 | 190.0 | 133.0 |
| 6000 | 75 | 172.0 | 140.0 | 190.0 | 110.0 | 199.0 | 74.3 | 161.0 | 134.0 | 184.0 | 106.0 | 195.0 | 71.7 | 151.0 | 129.0 | 175.0 | 101.0 | 189.0 | 68.7 |
| | 80 | 169.0 | 169.0 | 191.0 | 133.0 | 200.0 | 99.4 | 164.0 | 157.0 | 184.0 | 130.0 | 196.0 | 97.2 | 155.0 | 151.0 | 176.0 | 126.0 | 190.0 | 93.8 |
| | 85 | 181.0 | 181.0 | 192.0 | 156.0 | 202.0 | 119.0 | 173.0 | 173.0 | 185.0 | 154.0 | 198.0 | 118.0 | 165.0 | 165.0 | 176.0 | 151.0 | 191.0 | 116.0 |
| | 90 | 189.0 | 189.0 | 193.0 | 179.0 | 204.0 | 140.0 | 183.0 | 183.0 | 183.0 | 183.0 | 199.0 | 139.0 | 176.0 | 176.0 | 178.0 | 171.0 | 193.0 | 138.0 |
| 6600 | 75 | 176.0 | 147.0 | 192.0 | 112.0 | 200.0 | 75.5 | 165.0 | 141.0 | 186.0 | 110.0 | 196.0 | 73.0 | 154.0 | 136.0 | 178.0 | 105.0 | 190.0 | 69.8 |
| | 80 | 178.0 | 171.0 | 193.0 | 136.0 | 201.0 | 101.0 | 169.0 | 165.0 | 187.0 | 135.0 | 197.0 | 98.8 | 160.0 | 159.0 | 178.0 | 131.0 | 191.0 | 96.1 |
| | 85 | 185.0 | 185.0 | 194.0 | 161.0 | 203.0 | 122.0 | 179.0 | 179.0 | 188.0 | 160.0 | 199.0 | 121.0 | 171.0 | 171.0 | 179.0 | 158.0 | 193.0 | 119.0 |
| | 90 | 193.0 | 193.0 | 193.0 | 193.0 | 205.0 | 143.0 | 188.0 | 188.0 | 188.0 | 188.0 | 201.0 | 143.0 | 181.0 | 181.0 | 182.0 | 178.0 | 195.0 | 142.0 |
| 7200 | 75 | 179.0 | 152.0 | 194.0 | 114.0 | 201.0 | 76.7 | 168.0 | 147.0 | 188.0 | 112.0 | 197.0 | 74.2 | 158.0 | 142.0 | 180.0 | 109.0 | 191.0 | 71.0 |
| | 80 | 182.0 | 177.0 | 195.0 | 140.0 | 202.0 | 103.0 | 173.0 | 172.0 | 189.0 | 139.0 | 198.0 | 100.0 | 164.0 | 164.0 | 181.0 | 136.0 | 192.0 | 97.6 |
| | 85 | 189.0 | 189.0 | 196.0 | 166.0 | 204.0 | 125.0 | 183.0 | 183.0 | 190.0 | 166.0 | 200.0 | 123.0 | 176.0 | 176.0 | 182.0 | 164.0 | 194.0 | 121.0 |
| | 90 | 197.0 | 197.0 | 197.0 | 197.0 | 206.0 | 146.0 | 192.0 | 192.0 | 193.0 | 187.0 | 202.0 | 146.0 | 185.0 | 185.0 | 186.0 | 184.0 | 196.0 | 146.0 |

| Air Flow CFM | Ent DB (°F) | Ambient Temperature 115 Entering Wet Bulb 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC |
|---|---|---|---|---|---|---|---|
| 5400 | 75 | 137.0 | 117.0 | 162.0 | 92.1 | 179.0 | 63.2 |
| | 80 | 140.0 | 137.0 | 162.0 | 115.0 | 179.0 | 86.7 |
| | 85 | 150.0 | 150.0 | 162.0 | 138.0 | 180.0 | 110.0 |
| | 90 | 162.0 | 162.0 | 165.0 | 157.0 | 181.0 | 131.0 |
| 6000 | 75 | 140.0 | 124.0 | 165.0 | 96.1 | 181.0 | 64.9 |
| | 80 | 145.0 | 145.0 | 165.0 | 121.0 | 182.0 | 89.9 |
| | 85 | 157.0 | 157.0 | 166.0 | 146.0 | 183.0 | 113.0 |
| | 90 | 168.0 | 168.0 | 170.0 | 166.0 | 184.0 | 136.0 |
| 6600 | 75 | 144.0 | 130.0 | 168.0 | 99.8 | 182.0 | 66.1 |
| | 80 | 150.0 | 150.0 | 168.0 | 127.0 | 183.0 | 92.6 |
| | 85 | 163.0 | 163.0 | 169.0 | 153.0 | 185.0 | 116.0 |
| | 90 | 173.0 | 173.0 | 174.0 | 174.0 | 186.0 | 140.0 |
| 7200 | 75 | 142.0 | 142.0 | 170.0 | 103.0 | 183.0 | 67.2 |
| | 80 | 155.0 | 155.0 | 171.0 | 132.0 | 184.0 | 94.4 |
| | 85 | 167.0 | 167.0 | 167.0 | 167.0 | 186.0 | 119.0 |
| | 90 | 177.0 | 177.0 | 177.0 | 177.0 | 188.0 | 144.0 |

**Notes:**

1. All capacities shown are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBH = Total Gross Capacity
3. SHC = Sensible Heat Capacity

*Indicates both downflow and horizontal units.

**Table 13. Gross Cooling Capacities 17½ Tons Three Phase Standard Efficiency T/YC*210C3,4,W,K**

| Air Flow CFM | Ent DB (°F) | Ambient Temperature 85 Entering Wet Bulb 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC | 95 Entering Wet Bulb 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC | 105 Entering Wet Bulb 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6300 | 75 | 195.0 | 171.0 | 213.0 | 127.0 | 224.0 | 83.3 | 182.0 | 164.0 | 206.0 | 124.0 | 219.0 | 80.1 | 169.0 | 158.0 | 195.0 | 119.0 | 213.0 | 76.1 |
| | 80 | 200.0 | 200.0 | 214.0 | 157.0 | 226.0 | 114.0 | 191.0 | 191.0 | 207.0 | 156.0 | 221.0 | 112.0 | 180.0 | 180.0 | 196.0 | 153.0 | 214.0 | 110.0 |
| | 85 | 211.0 | 211.0 | 217.0 | 188.0 | 229.0 | 140.0 | 204.0 | 204.0 | 209.0 | 188.0 | 223.0 | 139.0 | 195.0 | 195.0 | 199.0 | 186.0 | 216.0 | 139.0 |
| | 90 | 219.0 | 219.0 | 220.0 | 217.0 | 230.0 | 164.0 | 214.0 | 214.0 | 214.0 | 214.0 | 225.0 | 167.0 | 207.0 | 207.0 | 207.0 | 207.0 | 218.0 | 169.0 |
| 7000 | 75 | 199.0 | 181.0 | 215.0 | 131.0 | 225.0 | 84.7 | 187.0 | 176.0 | 208.0 | 129.0 | 221.0 | 81.4 | 174.0 | 169.0 | 198.0 | 125.0 | 215.0 | 77.7 |
| | 80 | 206.0 | 206.0 | 217.0 | 164.0 | 228.0 | 116.0 | 198.0 | 198.0 | 210.0 | 164.0 | 222.0 | 114.0 | 188.0 | 188.0 | 200.0 | 162.0 | 216.0 | 113.0 |
| | 85 | 216.0 | 216.0 | 220.0 | 197.0 | 230.0 | 144.0 | 210.0 | 210.0 | 213.0 | 198.0 | 225.0 | 144.0 | 202.0 | 202.0 | 204.0 | 198.0 | 218.0 | 145.0 |
| | 90 | 224.0 | 224.0 | 224.0 | 224.0 | 233.0 | 172.0 | 219.0 | 219.0 | 219.0 | 219.0 | 227.0 | 173.0 | 212.0 | 212.0 | 212.0 | 212.0 | 221.0 | 177.0 |
| 7700 | 75 | 203.0 | 191.0 | 217.0 | 135.0 | 226.0 | 86.1 | 192.0 | 187.0 | 211.0 | 138.0 | 222.0 | 82.9 | 178.0 | 178.0 | 201.0 | 131.0 | 216.0 | 79.2 |
| | 80 | 211.0 | 211.0 | 219.0 | 169.0 | 229.0 | 118.0 | 204.0 | 204.0 | 212.0 | 171.0 | 224.0 | 117.0 | 194.0 | 194.0 | 203.0 | 170.0 | 218.0 | 116.0 |
| | 85 | 220.0 | 220.0 | 222.0 | 203.0 | 232.0 | 147.0 | 214.0 | 214.0 | 216.0 | 207.0 | 226.0 | 148.0 | 207.0 | 207.0 | 207.0 | 207.0 | 220.0 | 150.0 |
| | 90 | 226.0 | 226.0 | 226.0 | 226.0 | 235.0 | 176.0 | 223.0 | 223.0 | 222.0 | 222.0 | 229.0 | 179.0 | 216.0 | 216.0 | 216.0 | 216.0 | 223.0 | 184.0 |
| 8400 | 75 | 206.0 | 199.0 | 218.0 | 138.0 | 227.0 | 87.8 | 195.0 | 195.0 | 212.0 | 143.0 | 223.0 | 84.3 | 183.0 | 183.0 | 203.0 | 136.0 | 217.0 | 80.6 |
| | 80 | 214.0 | 214.0 | 221.0 | 174.0 | 230.0 | 120.0 | 208.0 | 208.0 | 214.0 | 178.0 | 226.0 | 120.0 | 199.0 | 199.0 | 205.0 | 178.0 | 219.0 | 119.0 |
| | 85 | 222.0 | 222.0 | 224.0 | 210.0 | 233.0 | 150.0 | 217.0 | 217.0 | 218.0 | 215.0 | 228.0 | 151.0 | 211.0 | 211.0 | 211.0 | 211.0 | 222.0 | 155.0 |
| | 90 | 229.0 | 229.0 | 229.0 | 229.0 | 236.0 | 181.0 | 225.0 | 225.0 | 225.0 | 225.0 | 231.0 | 184.0 | 220.0 | 220.0 | 219.0 | 219.0 | 225.0 | 190.0 |

| Air Flow CFM | Ent DB (°F) | Ambient Temperature 115 Entering Wet Bulb 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC |
|---|---|---|---|---|---|---|---|
| 6300 | 75 | 155.0 | 151.0 | 181.0 | 113.0 | 204.0 | 71.8 |
| | 80 | 168.0 | 168.0 | 183.0 | 147.0 | 205.0 | 106.0 |
| | 85 | 184.0 | 184.0 | 187.0 | 182.0 | 206.0 | 137.0 |
| | 90 | 198.0 | 198.0 | 198.0 | 198.0 | 208.0 | 168.0 |
| 7000 | 75 | 160.0 | 160.0 | 185.0 | 119.0 | 206.0 | 73.4 |
| | 80 | 176.0 | 176.0 | 187.0 | 157.0 | 207.0 | 110.0 |
| | 85 | 192.0 | 192.0 | 192.0 | 192.0 | 209.0 | 144.0 |
| | 90 | 204.0 | 204.0 | 204.0 | 204.0 | 211.0 | 177.0 |
| 7700 | 75 | 165.0 | 165.0 | 188.0 | 126.0 | 208.0 | 75.0 |
| | 80 | 183.0 | 183.0 | 191.0 | 167.0 | 209.0 | 114.0 |
| | 85 | 197.0 | 197.0 | 197.0 | 197.0 | 211.0 | 150.0 |
| | 90 | 208.0 | 208.0 | 208.0 | 208.0 | 214.0 | 186.0 |
| 8400 | 75 | 171.0 | 171.0 | 190.0 | 132.0 | 209.0 | 76.5 |
| | 80 | 188.0 | 188.0 | 194.0 | 176.0 | 211.0 | 117.0 |
| | 85 | 202.0 | 202.0 | 202.0 | 202.0 | 213.0 | 156.0 |
| | 90 | 212.0 | 212.0 | 212.0 | 212.0 | 216.0 | 193.0 |

**Notes:**

1. All capacities shown are gross and have not considered indoor fan heat. To obtain **NET** cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBH = Total Gross Capacity
3. SHC = Sensible Heat Capacity

*Indicates both downflow and horizontal units.

**Table 14. Gross Cooling Capacities 20 Tons Three Phase Standard Efficiency T/YC*240B3,4,W,K**

| Air Flow CFM | Ent DB (°F) | Ambient Temperature 85 Entering Wet Bulb MBH | SHC | 95 MBH | SHC | 105 MBH | SHC |
|---|---|---|---|---|---|---|---|
| 7200 | 75 | 223.0 | 180.0 | 251.0 | 143.0 | 265.0 | 97.7 | 209.0 | 173.0 | 242.0 | 137.0 | 260.0 | 94.3 | 195.0 | 165.0 | 228.0 | 130.0 | 252.0 | 90.3 |
| | 80 | 226.0 | 214.0 | 252.0 | 173.0 | 267.0 | 131.0 | 208.0 | 208.0 | 242.0 | 169.0 | 261.0 | 127.0 | 197.0 | 197.0 | 228.0 | 162.0 | 253.0 | 122.0 |
| | 85 | 235.0 | 235.0 | 253.0 | 204.0 | 268.0 | 158.0 | 224.0 | 224.0 | 242.0 | 200.0 | 262.0 | 156.0 | 213.0 | 213.0 | 229.0 | 194.0 | 253.0 | 153.0 |
| | 90 | 248.0 | 248.0 | 255.0 | 234.0 | 271.0 | 185.0 | 239.0 | 239.0 | 245.0 | 232.0 | 264.0 | 185.0 | 228.0 | 228.0 | 228.0 | 228.0 | 255.0 | 183.0 |
| 8000 | 75 | 229.0 | 190.0 | 255.0 | 148.0 | 267.0 | 99.4 | 215.0 | 183.0 | 246.0 | 142.0 | 262.0 | 96.1 | 200.0 | 175.0 | 233.0 | 136.0 | 254.0 | 92.2 |
| | 80 | 228.0 | 228.0 | 256.0 | 180.0 | 268.0 | 134.0 | 217.0 | 217.0 | 246.0 | 176.0 | 264.0 | 131.0 | 205.0 | 205.0 | 233.0 | 171.0 | 255.0 | 127.0 |
| | 85 | 243.0 | 243.0 | 257.0 | 212.0 | 271.0 | 162.0 | 233.0 | 233.0 | 247.0 | 210.0 | 265.0 | 161.0 | 222.0 | 222.0 | 234.0 | 206.0 | 257.0 | 158.0 |
| | 90 | 255.0 | 255.0 | 259.0 | 245.0 | 273.0 | 190.0 | 247.0 | 247.0 | 247.0 | 247.0 | 267.0 | 191.0 | 237.0 | 237.0 | 237.0 | 237.0 | 258.0 | 190.0 |
| 8800 | 75 | 234.0 | 199.0 | 257.0 | 151.0 | 268.0 | 101.0 | 220.0 | 192.0 | 249.0 | 147.0 | 263.0 | 97.9 | 205.0 | 184.0 | 237.0 | 141.0 | 256.0 | 93.7 |
| | 80 | 236.0 | 236.0 | 259.0 | 185.0 | 270.0 | 136.0 | 224.0 | 224.0 | 249.0 | 183.0 | 265.0 | 134.0 | 212.0 | 212.0 | 237.0 | 178.0 | 257.0 | 130.0 |
| | 85 | 250.0 | 250.0 | 260.0 | 220.0 | 273.0 | 165.0 | 240.0 | 240.0 | 251.0 | 219.0 | 267.0 | 165.0 | 229.0 | 229.0 | 239.0 | 216.0 | 259.0 | 163.0 |
| | 90 | 260.0 | 260.0 | 263.0 | 254.0 | 275.0 | 194.0 | 253.0 | 253.0 | 253.0 | 253.0 | 270.0 | 196.0 | 244.0 | 244.0 | 244.0 | 244.0 | 261.0 | 196.0 |
| 9600 | 75 | 238.0 | 208.0 | 259.0 | 154.0 | 269.0 | 103.0 | 224.0 | 201.0 | 251.0 | 151.0 | 265.0 | 99.6 | 209.0 | 193.0 | 240.0 | 146.0 | 257.0 | 95.1 |
| | 80 | 242.0 | 242.0 | 261.0 | 190.0 | 271.0 | 137.0 | 231.0 | 231.0 | 252.0 | 189.0 | 266.0 | 136.0 | 219.0 | 219.0 | 240.0 | 185.0 | 259.0 | 133.0 |
| | 85 | 254.0 | 254.0 | 263.0 | 227.0 | 274.0 | 167.0 | 246.0 | 246.0 | 254.0 | 227.0 | 269.0 | 168.0 | 236.0 | 236.0 | 243.0 | 225.0 | 261.0 | 167.0 |
| | 90 | 264.0 | 264.0 | 264.0 | 264.0 | 277.0 | 198.0 | 258.0 | 258.0 | 258.0 | 258.0 | 272.0 | 201.0 | 249.0 | 249.0 | 249.0 | 249.0 | 263.0 | 202.0 |

| Air Flow CFM | Ent DB (°F) | Ambient Temperature 115 Entering Wet Bulb 61 MBH | SHC | 67 MBH | SHC | 73 MBH | SHC |
|---|---|---|---|---|---|---|---|
| 7200 | 75 | 180.0 | 158.0 | 212.0 | 135.0 | 241.0 | 85.5 |
| | 80 | 186.0 | 186.0 | 213.0 | 155.0 | 242.0 | 117.0 |
| | 85 | 201.0 | 201.0 | 214.0 | 188.0 | 242.0 | 149.0 |
| | 90 | 217.0 | 217.0 | 217.0 | 217.0 | 243.0 | 179.0 |
| 8000 | 75 | 185.0 | 168.0 | 218.0 | 129.0 | 244.0 | 87.1 |
| | 80 | 193.0 | 193.0 | 218.0 | 164.0 | 245.0 | 121.0 |
| | 85 | 210.0 | 210.0 | 220.0 | 199.0 | 245.0 | 155.0 |
| | 90 | 226.0 | 226.0 | 226.0 | 226.0 | 247.0 | 187.0 |
| 8800 | 75 | 190.0 | 177.0 | 222.0 | 134.0 | 246.0 | 88.6 |
| | 80 | 200.0 | 200.0 | 222.0 | 172.0 | 247.0 | 126.0 |
| | 85 | 217.0 | 217.0 | 225.0 | 210.0 | 248.0 | 160.0 |
| | 90 | 233.0 | 233.0 | 233.0 | 233.0 | 250.0 | 194.0 |
| 9600 | 75 | 194.0 | 186.0 | 225.0 | 139.0 | 248.0 | 89.2 |
| | 80 | 206.0 | 206.0 | 226.0 | 180.0 | 249.0 | 129.0 |
| | 85 | 224.0 | 224.0 | 229.0 | 220.0 | 251.0 | 165.0 |
| | 90 | 239.0 | 239.0 | 239.0 | 239.0 | 252.0 | 201.0 |

**Notes:**

1. All capacities shown are gross and have not considered indoor fan heat. To obtain **NET** cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBH = Total Gross Capacity
3. SHC = Sensible Heat Capacity

*Indicates both downflow and horizontal units.

**Table 15. Gross Cooling Capacities 25 Tons Three Phase Standard Efficiency T/YC*300B3,4,W,K**

| Air Flow CFM | Ent DB (°F) | Ambient Temperature 85 Entering Wet Bulb MBH | SHC | 95 MBH | SHC | 105 MBH | SHC |
|---|---|---|---|---|---|---|---|
| 9000 | 75 | 266 | 224 | 299 | 174 | 319 | 118 | 247 | 215 | 285 | 167 | 309 | 113 | 228 | 205 | 266 | 172 | 297 | 108 |
| | 80 | 270 | 268 | 300 | 215 | 321 | 161 | 252 | 252 | 285 | 209 | 311 | 155 | 237 | 237 | 266 | 200 | 297 | 149 |
| | 85 | 286 | 286 | 301 | 255 | 323 | 196 | 272 | 272 | 286 | 250 | 312 | 194 | 256 | 256 | 267 | 242 | 298 | 189 |
| | 90 | 301 | 301 | 304 | 295 | 326 | 232 | 289 | 289 | 289 | 289 | 314 | 231 | 275 | 275 | 275 | 275 | 300 | 229 |
| 10000 | 75 | 272 | 237 | 303 | 180 | 322 | 120 | 253 | 227 | 290 | 174 | 312 | 115 | 234 | 218 | 271 | 165 | 300 | 109 |
| | 80 | 277 | 277 | 304 | 223 | 324 | 171 | 262 | 262 | 290 | 219 | 314 | 161 | 246 | 246 | 271 | 211 | 301 | 155 |
| | 85 | 294 | 294 | 306 | 266 | 327 | 208 | 282 | 282 | 291 | 263 | 316 | 200 | 266 | 266 | 273 | 257 | 302 | 197 |
| | 90 | 308 | 308 | 310 | 309 | 329 | 239 | 297 | 297 | 297 | 297 | 318 | 240 | 284 | 284 | 284 | 284 | 304 | 239 |
| 10500 | 75 | 275 | 243 | 305 | 183 | 323 | 122 | 256 | 233 | 291 | 177 | 314 | 117 | 236 | 223 | 273 | 188 | 301 | 111 |
| | 80 | 282 | 282 | 306 | 227 | 325 | 174 | 267 | 267 | 292 | 223 | 315 | 162 | 250 | 250 | 273 | 216 | 302 | 157 |
| | 85 | 298 | 298 | 308 | 272 | 328 | 216 | 286 | 286 | 294 | 270 | 317 | 203 | 270 | 270 | 276 | 264 | 304 | 200 |
| | 90 | 312 | 312 | 311 | 311 | 330 | 256 | 301 | 301 | 301 | 301 | 320 | 244 | 288 | 288 | 288 | 288 | 306 | 244 |
| 11000 | 75 | 278 | 248 | 306 | 185 | 324 | 123 | 258 | 239 | 293 | 181 | 315 | 118 | 239 | 229 | 275 | 172 | 302 | 113 |
| | 80 | 286 | 286 | 308 | 231 | 325 | 160 | 271 | 271 | 294 | 228 | 316 | 163 | 254 | 254 | 276 | 221 | 304 | 160 |
| | 85 | 301 | 301 | 310 | 277 | 327 | 224 | 289 | 289 | 296 | 276 | 319 | 205 | 274 | 274 | 278 | 271 | 305 | 204 |
| | 90 | 314 | 314 | 314 | 314 | 330 | 266 | 304 | 304 | 304 | 304 | 321 | 248 | 291 | 291 | 291 | 291 | 307 | 249 |

| Air Flow CFM | Ent DB (°F) | Ambient Temperature 115 Entering Wet Bulb 61 MBH | SHC | 67 MBH | SHC | 73 MBH | SHC |
|---|---|---|---|---|---|---|---|
| 9000 | 75 | 209 | 196 | 244 | 163 | 280 | 99.9 |
| | 80 | 221 | 221 | 244 | 190 | 280 | 142 |
| | 85 | 240 | 240 | 246 | 233 | 281 | 183 |
| | 90 | 259 | 259 | 259 | 259 | 282 | 224 |
| 10000 | 75 | 214 | 208 | 249 | 156 | 284 | 102 |
| | 80 | 229 | 229 | 249 | 201 | 284 | 147 |
| | 85 | 249 | 249 | 253 | 248 | 285 | 192 |
| | 90 | 268 | 268 | 268 | 268 | 286 | 235 |
| 10500 | 75 | 216 | 214 | 251 | 178 | 285 | 103 |
| | 80 | 233 | 233 | 251 | 206 | 286 | 150 |
| | 85 | 253 | 253 | 256 | 255 | 286 | 196 |
| | 90 | 273 | 273 | 272 | 272 | 288 | 241 |
| 11000 | 75 | 217 | 217 | 253 | 184 | 286 | 104 |
| | 80 | 237 | 237 | 253 | 212 | 287 | 153 |
| | 85 | 257 | 257 | 257 | 257 | 288 | 200 |
| | 90 | 276 | 276 | 276 | 276 | 289 | 246 |

**Notes:**

1. All capacities shown are gross and have not considered indoor fan heat. To obtain **NET** cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBH = Total Gross Capacity
3. SHC = Sensible Heat Capacity

*Indicates both downflow and horizontal units.

**Table 16. Gross Cooling Capacities 12½ Tons Three Phase Standard Refrigeration System High Efficiency T/YC*151C3,4,W**

| Air Flow CFM | Ent DB (°F) | Ambient Temperature 85 Entering Wet Bulb MBH | SHC | MBH | SHC | MBH | SHC | 95 Entering Wet Bulb MBH | SHC | MBH | SHC | MBH | SHC | 105 Entering Wet Bulb MBH | SHC | MBH | SHC | MBH | SHC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4500 | 75 | 137.0 | 116.0 | 157.0 | 90.2 | 166.0 | 60.8 | 127.0 | 110.0 | 151.0 | 87.1 | 163.0 | 58.5 | 116.0 | 105.0 | 140.0 | 82.3 | 158.0 | 55.8 |
| | 80 | 140.0 | 139.0 | 158.0 | 111.0 | 167.0 | 82.9 | 130.0 | 130.0 | 151.0 | 109.0 | 164.0 | 80.8 | 122.0 | 122.0 | 141.0 | 104.0 | 159.0 | 77.8 |
| | 85 | 149.0 | 149.0 | 158.0 | 132.0 | 169.0 | 100.0 | 142.0 | 142.0 | 151.0 | 131.0 | 165.0 | 99.4 | 133.0 | 133.0 | 141.0 | 126.0 | 159.0 | 98.2 |
| | 90 | 158.0 | 158.0 | 160.0 | 153.0 | 170.0 | 118.0 | 152.0 | 152.0 | 154.0 | 152.0 | 166.0 | 118.0 | 145.0 | 145.0 | 145.0 | 145.0 | 160.0 | 118.0 |
| 5000 | 75 | 141.0 | 123.0 | 159.0 | 93.4 | 167.0 | 61.6 | 131.0 | 117.0 | 154.0 | 90.9 | 164.0 | 59.4 | 120.0 | 112.0 | 144.0 | 86.6 | 159.0 | 56.8 |
| | 80 | 145.0 | 145.0 | 160.0 | 116.0 | 168.0 | 84.1 | 136.0 | 136.0 | 154.0 | 114.0 | 165.0 | 82.4 | 128.0 | 128.0 | 144.0 | 110.0 | 161.0 | 80.9 |
| | 85 | 155.0 | 155.0 | 161.0 | 138.0 | 170.0 | 103.0 | 148.0 | 148.0 | 155.0 | 138.0 | 166.0 | 102.0 | 140.0 | 140.0 | 145.0 | 135.0 | 161.0 | 102.0 |
| | 90 | 162.0 | 162.0 | 163.0 | 160.0 | 172.0 | 121.0 | 157.0 | 157.0 | 157.0 | 157.0 | 168.0 | 122.0 | 151.0 | 151.0 | 151.0 | 151.0 | 163.0 | 123.0 |
| 5500 | 75 | 145.0 | 129.0 | 161.0 | 95.8 | 168.0 | 62.6 | 134.0 | 124.0 | 156.0 | 94.4 | 165.0 | 60.4 | 123.0 | 119.0 | 147.0 | 90.4 | 161.0 | 57.8 |
| | 80 | 150.0 | 150.0 | 162.0 | 119.0 | 169.0 | 85.2 | 142.0 | 142.0 | 156.0 | 119.0 | 167.0 | 84.0 | 133.0 | 133.0 | 147.0 | 116.0 | 162.0 | 82.4 |
| | 85 | 158.0 | 158.0 | 163.0 | 143.0 | 172.0 | 104.0 | 153.0 | 153.0 | 157.0 | 144.0 | 168.0 | 104.0 | 146.0 | 146.0 | 149.0 | 143.0 | 163.0 | 105.0 |
| | 90 | 165.0 | 165.0 | 165.0 | 165.0 | 173.0 | 123.0 | 161.0 | 161.0 | 161.0 | 161.0 | 170.0 | 126.0 | 156.0 | 156.0 | 156.0 | 156.0 | 164.0 | 127.0 |
| 6000 | 75 | 148.0 | 136.0 | 162.0 | 97.9 | 168.0 | 63.5 | 137.0 | 131.0 | 157.0 | 97.1 | 166.0 | 61.4 | 126.0 | 125.0 | 150.0 | 94.3 | 162.0 | 58.9 |
| | 80 | 154.0 | 154.0 | 163.0 | 123.0 | 170.0 | 86.2 | 147.0 | 147.0 | 158.0 | 124.0 | 168.0 | 85.8 | 138.0 | 138.0 | 150.0 | 122.0 | 162.0 | 83.3 |
| | 85 | 161.0 | 161.0 | 165.0 | 147.0 | 172.0 | 106.0 | 157.0 | 157.0 | 160.0 | 150.0 | 169.0 | 106.0 | 151.0 | 151.0 | 152.0 | 150.0 | 164.0 | 107.0 |
| | 90 | 167.0 | 167.0 | 167.0 | 167.0 | 174.0 | 126.0 | 164.0 | 164.0 | 164.0 | 164.0 | 171.0 | 128.0 | 159.0 | 159.0 | 159.0 | 159.0 | 166.0 | 131.0 |

| Air Flow CFM | Ent DB (°F) | Ambient Temperature 115 Entering Wet Bulb 61 MBH | SHC | 67 MBH | SHC | 73 MBH | SHC |
|---|---|---|---|---|---|---|---|
| 4500 | 75 | 106.0 | 99.7 | 128.0 | 80.6 | 152.0 | 52.8 |
| | 80 | 114.0 | 114.0 | 128.0 | 98.5 | 152.0 | 74.6 |
| | 85 | 125.0 | 125.0 | 130.0 | 121.0 | 152.0 | 96.0 |
| | 90 | 137.0 | 137.0 | 137.0 | 137.0 | 153.0 | 117.0 |
| 5000 | 75 | 109.0 | 107.0 | 132.0 | 81.0 | 153.0 | 53.7 |
| | 80 | 119.0 | 119.0 | 132.0 | 105.0 | 154.0 | 77.5 |
| | 85 | 131.0 | 131.0 | 134.0 | 129.0 | 154.0 | 100.0 |
| | 90 | 143.0 | 143.0 | 143.0 | 143.0 | 155.0 | 122.0 |
| 5500 | 75 | 112.0 | 112.0 | 135.0 | 85.1 | 154.0 | 54.6 |
| | 80 | 124.0 | 124.0 | 135.0 | 111.0 | 155.0 | 80.1 |
| | 85 | 137.0 | 137.0 | 137.0 | 137.0 | 156.0 | 104.0 |
| | 90 | 149.0 | 149.0 | 149.0 | 149.0 | 157.0 | 127.0 |
| 6000 | 75 | 116.0 | 116.0 | 138.0 | 89.0 | 155.0 | 55.6 |
| | 80 | 128.0 | 128.0 | 138.0 | 117.0 | 156.0 | 82.2 |
| | 85 | 142.0 | 142.0 | 142.0 | 142.0 | 158.0 | 107.0 |
| | 90 | 153.0 | 153.0 | 153.0 | 153.0 | 159.0 | 132.0 |

**Notes:**

1. All capacities shown are gross and have not considered indoor fan heat. To obtain **NET** cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBH = Total Gross Capacity
3. SHC = Sensible Heat Capacity

*Indicates both downflow and horizontal units.

**Table 17. Gross Cooling Capacities 12½ Tons Three Phase Dehumidification (Hot Gas Reheat) or TXV Option High Efficiency T/Y*D151C3,4,W**

| Air Flow CFM | Ent DB (°F) | Ambient Temperature | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 85 | | | | | | 95 | | | | | | 105 | | | | | |
| | | Entering Wet Bulb | | | | | | | | | | | | | | | | | |
| | | 61 | | 67 | | 73 | | 61 | | 67 | | 73 | | 61 | | 67 | | 73 | |
| | | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC |
| 2500* | 75 | 123.8 | 88.0 | 138.9 | 73.4 | 155.2 | 55.8 | 118.2 | 84.4 | 132.8 | 70.1 | 148.6 | 52.6 | 112.1 | 80.7 | 126.2 | 66.6 | 141.5 | 49.2 |
| | 80 | 123.9 | 100.8 | 139.0 | 85.5 | 155.2 | 69.8 | 118.3 | 97.3 | 132.9 | 82.0 | 148.7 | 66.4 | 112.1 | 93.3 | 126.3 | 78.3 | 141.5 | 62.8 |
| | 85 | 124.0 | 113.6 | 139.1 | 98.3 | 155.3 | 82.5 | 118.5 | 110.1 | 133.0 | 94.7 | 148.8 | 79.1 | 112.5 | 106.3 | 126.4 | 91.0 | 141.6 | 75.4 |
| | 90 | 126.0 | 124.6 | 139.0 | 110.8 | 155.4 | 95.2 | 120.6 | 120.6 | 133.0 | 107.2 | 148.8 | 91.7 | 115.5 | 115.5 | 126.4 | 103.5 | 141.7 | 88.0 |
| 3250* | 75 | 133.0 | 99.5 | 148.7 | 80.0 | 165.5 | 59.1 | 126.7 | 95.9 | 141.9 | 76.4 | 158.2 | 55.7 | 120.0 | 91.9 | 134.7 | 72.5 | 150.4 | 52.2 |
| | 80 | 133.1 | 115.7 | 148.8 | 96.0 | 165.6 | 76.1 | 126.9 | 112.0 | 142.1 | 92.4 | 158.3 | 72.5 | 120.2 | 108.1 | 134.8 | 88.6 | 150.5 | 68.8 |
| | 85 | 132.7 | 132.7 | 148.8 | 111.9 | 165.7 | 92.0 | 128.6 | 126.0 | 142.1 | 108.2 | 158.4 | 88.4 | 122.5 | 121.6 | 134.8 | 104.3 | 150.6 | 84.7 |
| | 90 | 139.8 | 139.8 | 148.9 | 127.6 | 165.7 | 107.7 | 134.5 | 134.5 | 142.2 | 124.0 | 158.4 | 104.1 | 128.9 | 128.9 | 135.0 | 120.1 | 150.7 | 100.5 |
| 4000 | 75 | 139.3 | 109.8 | 155.4 | 86.2 | 172.5 | 61.7 | 132.6 | 106.1 | 148.2 | 82.5 | 164.7 | 58.3 | 125.4 | 102.0 | 140.4 | 78.6 | 156.4 | 54.7 |
| | 80 | 139.6 | 128.9 | 155.5 | 105.4 | 172.6 | 81.5 | 133.1 | 125.4 | 148.3 | 101.7 | 164.8 | 77.8 | 126.2 | 121.5 | 140.6 | 97.7 | 156.5 | 74.0 |
| | 85 | 143.2 | 143.2 | 155.5 | 124.1 | 172.8 | 100.5 | 137.6 | 137.6 | 148.3 | 120.4 | 165.0 | 96.8 | 131.5 | 131.5 | 140.7 | 116.6 | 156.7 | 93.0 |
| | 90 | 151.0 | 151.0 | 156.1 | 143.3 | 172.8 | 119.2 | 145.3 | 145.3 | 149.0 | 139.6 | 165.0 | 115.6 | 139.0 | 139.0 | 141.6 | 136.1 | 156.7 | 111.7 |
| 4500 | 75 | 142.5 | 116.0 | 158.8 | 90.2 | 176.0 | 63.3 | 135.6 | 112.2 | 151.3 | 86.4 | 168.0 | 59.8 | 128.2 | 108.3 | 143.3 | 82.4 | 159.5 | 56.2 |
| | 80 | 143.3 | 137.5 | 158.8 | 111.1 | 176.2 | 84.8 | 135.1 | 135.1 | 151.4 | 107.3 | 168.1 | 81.1 | 130.0 | 127.1 | 143.5 | 103.5 | 159.6 | 77.3 |
| | 85 | 149.0 | 149.0 | 159.0 | 131.9 | 176.3 | 105.6 | 143.1 | 143.1 | 151.6 | 128.2 | 168.2 | 101.9 | 136.7 | 136.7 | 143.6 | 124.2 | 159.8 | 98.2 |
| | 90 | 157.2 | 157.2 | 160.1 | 153.3 | 176.4 | 126.4 | 151.1 | 151.1 | 151.1 | 151.1 | 168.3 | 122.6 | 144.6 | 144.6 | 145.9 | 142.5 | 159.7 | 118.6 |
| 5000 | 75 | 145.1 | 121.9 | 161.6 | 93.7 | 179.0 | 64.7 | 138.1 | 118.3 | 154.0 | 89.9 | 170.8 | 61.2 | 130.5 | 114.2 | 145.8 | 85.9 | 162.0 | 57.3 |
| | 80 | 145.6 | 145.6 | 161.6 | 116.5 | 179.2 | 87.9 | 140.4 | 138.6 | 154.0 | 112.8 | 170.9 | 84.2 | 133.1 | 133.1 | 145.8 | 108.8 | 162.1 | 80.3 |
| | 85 | 154.1 | 154.1 | 162.0 | 139.4 | 179.3 | 110.7 | 147.9 | 147.9 | 154.4 | 135.7 | 171.0 | 106.9 | 141.3 | 141.3 | 146.3 | 131.7 | 162.2 | 103.0 |
| | 90 | 162.6 | 162.6 | 162.5 | 162.5 | 179.5 | 133.2 | 156.3 | 156.3 | 157.1 | 154.9 | 171.2 | 129.5 | 149.5 | 149.5 | 149.4 | 149.4 | 162.4 | 125.5 |
| 5500 | 75 | 147.5 | 127.8 | 164.0 | 97.2 | 181.5 | 66.0 | 140.3 | 124.0 | 156.2 | 93.3 | 173.1 | 62.2 | 132.6 | 119.9 | 147.8 | 89.3 | 164.1 | 58.4 |
| | 80 | 150.2 | 149.4 | 164.1 | 121.8 | 181.7 | 90.9 | 143.5 | 143.5 | 156.2 | 117.9 | 173.2 | 87.1 | 136.8 | 136.8 | 147.9 | 114.0 | 164.3 | 83.2 |
| | 85 | 158.5 | 158.5 | 164.6 | 146.7 | 181.8 | 115.5 | 152.1 | 152.1 | 156.8 | 142.9 | 173.4 | 111.8 | 145.3 | 145.3 | 148.6 | 139.0 | 164.4 | 107.8 |
| | 90 | 167.4 | 167.4 | 167.9 | 167.1 | 182.1 | 139.9 | 160.8 | 160.8 | 160.7 | 160.7 | 173.6 | 136.1 | 153.8 | 153.8 | 153.7 | 153.7 | 164.6 | 132.2 |
| 6000 | 75 | 149.6 | 133.5 | 165.9 | 100.3 | 183.7 | 67.0 | 142.2 | 129.6 | 158.0 | 96.4 | 175.1 | 63.2 | 134.4 | 125.6 | 149.5 | 92.5 | 166.0 | 59.4 |
| | 80 | 153.4 | 153.4 | 166.1 | 126.9 | 183.8 | 93.6 | 147.0 | 147.0 | 158.1 | 123.0 | 175.2 | 90.0 | 140.2 | 140.2 | 149.6 | 118.9 | 166.1 | 86.1 |
| | 85 | 162.5 | 162.5 | 166.9 | 153.7 | 183.9 | 120.1 | 155.9 | 155.9 | 159.1 | 150.0 | 175.3 | 116.3 | 148.8 | 148.8 | 148.7 | 148.7 | 166.2 | 112.5 |
| | 90 | 171.6 | 171.6 | 171.6 | 171.6 | 184.3 | 146.4 | 164.8 | 164.8 | 164.7 | 164.7 | 175.7 | 142.6 | 157.6 | 157.6 | 157.5 | 157.5 | 166.5 | 138.7 |

**continued on next page**

**Table 17. (continued) Gross Cooling Capacities 12½ Tons Three Phase Dehumidification (Hot Gas Reheat) or TXV Option High Efficiency T/Y*D151C3,4,W**

| Air Flow CFM | Ent DB (°F) | Ambient Temperature | | | | | |
|---|---|---|---|---|---|---|---|
| | | 85 | | | | | |
| | | Entering Wet Bulb | | | | | |
| | | MBH | SHC | MBH | SHC | MBH | SHC |
| 2500* | 75 | 105.6 | 76.8 | 119.1 | 62.8 | 133.8 | 45.6 |
| | 80 | 105.7 | 89.6 | 119.2 | 74.4 | 133.9 | 59.0 |
| | 85 | 104.3 | 104.3 | 119.3 | 87.1 | 134.0 | 71.6 |
| | 90 | 110.3 | 110.3 | 119.4 | 99.5 | 134.1 | 84.2 |
| 3250* | 75 | 112.8 | 87.8 | 126.9 | 68.5 | 142.0 | 48.5 |
| | 80 | 113.2 | 104.1 | 127.0 | 84.5 | 142.1 | 64.9 |
| | 85 | 116.2 | 116.2 | 127.1 | 100.4 | 142.3 | 80.7 |
| | 90 | 122.8 | 122.8 | 127.5 | 116.3 | 142.4 | 96.5 |
| 4000 | 75 | 117.8 | 97.8 | 132.2 | 74.5 | 147.6 | 50.9 |
| | 80 | 119.0 | 115.2 | 132.3 | 93.6 | 147.7 | 70.1 |
| | 85 | 125.0 | 125.0 | 132.4 | 112.5 | 147.8 | 89.0 |
| | 90 | 132.4 | 132.4 | 134.0 | 129.4 | 147.9 | 107.6 |
| 4500 | 75 | 120.4 | 104.1 | 134.9 | 78.2 | 150.4 | 52.4 |
| | 80 | 122.7 | 122.1 | 135.0 | 99.3 | 150.5 | 73.3 |
| | 85 | 129.9 | 129.9 | 135.2 | 120.1 | 150.7 | 94.2 |
| | 90 | 137.6 | 137.6 | 138.2 | 137.5 | 150.8 | 114.8 |
| 5000 | 75 | 122.6 | 110.1 | 137.1 | 81.7 | 152.7 | 53.3 |
| | 80 | 126.2 | 126.2 | 137.1 | 104.5 | 152.9 | 76.3 |
| | 85 | 134.2 | 134.2 | 137.7 | 127.6 | 153.1 | 99.2 |
| | 90 | 142.2 | 142.2 | 142.2 | 142.2 | 153.1 | 121.5 |
| 5500 | 75 | 124.6 | 116.0 | 138.9 | 85.1 | 154.7 | 54.3 |
| | 80 | 129.7 | 129.7 | 139.0 | 109.8 | 154.8 | 79.2 |
| | 85 | 138.0 | 138.0 | 140.0 | 134.9 | 154.9 | 103.7 |
| | 90 | 146.3 | 146.3 | 146.2 | 146.2 | 155.1 | 128.2 |
| 6000 | 75 | 126.4 | 121.7 | 140.5 | 88.3 | 156.4 | 55.3 |
| | 80 | 132.8 | 132.8 | 140.6 | 115.0 | 156.5 | 82.0 |
| | 85 | 141.3 | 141.3 | 142.4 | 138.6 | 156.6 | 108.4 |
| | 90 | 149.9 | 149.9 | 149.9 | 149.9 | 157.0 | 134.7 |

**Notes:**

1. All capacities shown are gross and have not considered indoor fan heat. To obtain **NET** cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBH = Total Gross Capacity
3. SHC = Sensible Heat Capacity
4. *For 2500 and 3250 CFM - Unit applications below 320 CFM/Ton are only applicable to TCD models (No Gas Heat). See below for restrictions:

- Electric heaters restricted on applications below 320 CFM/Ton.
- Dehumidification (Hot Gas Reheat) or TXV with Frostat and Crankcase Heaters are required on applications below 320 CFM/Ton.

**Table 18. Gross Cooling Capacities 15 Tons Three Phase Standard Refrigeration System High Efficiency T/YC*181C3,4,W**

| Air Flow CFM | Ent DB (°F) | Ambient Temperature 85 Entering Wet Bulb 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC | 95 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC | 105 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5400 | 75 | 172 | 144 | 194 | 112 | 205 | 75.2 | 159 | 138 | 185 | 107 | 200 | 71.9 | 147 | 131 | 172 | 101 | 193 | 68 |
| | 80 | 175 | 169 | 195 | 138 | 207 | 103 | 164 | 162 | 186 | 134 | 202 | 99.7 | 153 | 153 | 173 | 128 | 194 | 95.4 |
| | 85 | 185 | 185 | 196 | 164 | 209 | 126 | 176 | 176 | 186 | 161 | 203 | 124 | 165 | 165 | 174 | 156 | 195 | 122 |
| | 90 | 195 | 195 | 195 | 195 | 211 | 149 | 188 | 188 | 190 | 184 | 204 | 148 | 178 | 178 | 179 | 179 | 196 | 147 |
| 6000 | 75 | 177 | 153 | 197 | 116 | 207 | 76 | 164 | 147 | 189 | 112 | 202 | 73.2 | 151 | 140 | 176 | 106 | 195 | 69.3 |
| | 80 | 181 | 180 | 198 | 144 | 209 | 105 | 170 | 170 | 189 | 142 | 204 | 103 | 159 | 159 | 177 | 136 | 196 | 99.4 |
| | 85 | 192 | 192 | 199 | 172 | 211 | 129 | 183 | 183 | 190 | 171 | 206 | 129 | 173 | 173 | 173 | 173 | 197 | 127 |
| | 90 | 201 | 201 | 200 | 200 | 214 | 153 | 194 | 194 | 195 | 194 | 208 | 155 | 185 | 185 | 185 | 185 | 199 | 154 |
| 6600 | 75 | 181 | 162 | 198 | 123 | 208 | 76.6 | 168 | 155 | 191 | 117 | 204 | 74.4 | 152 | 152 | 180 | 111 | 197 | 70.6 |
| | 80 | 186 | 186 | 200 | 151 | 210 | 107 | 177 | 177 | 192 | 148 | 206 | 105 | 166 | 166 | 180 | 144 | 198 | 102 |
| | 85 | 197 | 197 | 202 | 179 | 213 | 131 | 189 | 189 | 194 | 180 | 208 | 132 | 179 | 179 | 183 | 173 | 199 | 132 |
| | 90 | 204 | 204 | 205 | 202 | 215 | 157 | 199 | 199 | 199 | 199 | 209 | 159 | 191 | 191 | 191 | 191 | 201 | 160 |
| 7200 | 75 | 184 | 170 | 200 | 127 | 209 | 79.1 | 168 | 168 | 193 | 121 | 206 | 76.4 | 156 | 156 | 182 | 116 | 198 | 71.9 |
| | 80 | 191 | 191 | 202 | 153 | 211 | 108 | 182 | 182 | 194 | 154 | 207 | 107 | 171 | 171 | 183 | 151 | 199 | 105 |
| | 85 | 200 | 200 | 204 | 185 | 214 | 134 | 194 | 194 | 194 | 194 | 209 | 136 | 185 | 185 | 187 | 181 | 201 | 135 |
| | 90 | 207 | 207 | 208 | 207 | 217 | 160 | 203 | 203 | 203 | 203 | 211 | 163 | 195 | 195 | 195 | 195 | 203 | 166 |

| Air Flow CFM | Ent DB (°F) | Ambient Temperature 115 Entering Wet Bulb 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC |
|---|---|---|---|---|---|---|---|
| 5400 | 75 | 130 | 130 | 158 | 97 | 183 | 63.4 |
| | 80 | 142 | 142 | 158 | 122 | 183 | 90.5 |
| | 85 | 155 | 155 | 155 | 155 | 184 | 117 |
| | 90 | 168 | 168 | 167 | 167 | 184 | 144 |
| 6000 | 75 | 138 | 131 | 162 | 99.8 | 185 | 64.8 |
| | 80 | 148 | 148 | 162 | 130 | 186 | 94.6 |
| | 85 | 162 | 162 | 162 | 162 | 186 | 124 |
| | 90 | 175 | 175 | 175 | 175 | 187 | 152 |
| 6600 | 75 | 142 | 139 | 165 | 105 | 187 | 66.2 |
| | 80 | 154 | 154 | 166 | 137 | 188 | 98.6 |
| | 85 | 168 | 168 | 170 | 166 | 189 | 129 |
| | 90 | 181 | 181 | 181 | 181 | 190 | 160 |
| 7200 | 75 | 145 | 145 | 168 | 110 | 189 | 67.4 |
| | 80 | 159 | 159 | 169 | 145 | 190 | 102 |
| | 85 | 174 | 174 | 174 | 174 | 191 | 134 |
| | 90 | 186 | 186 | 186 | 186 | 192 | 167 |

**Notes:**

1. All capacities shown are gross and have not considered indoor fan heat. To obtain **NET** cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBH = Total Gross Capacity
3. SHC = Sensible Heat Capacity

*Indicates both downflow and horizontal units.

**Table 19. Gross Cooling Capacities 15 Tons Three Phase Dehumidification (Hot Gas Reheat) or TXV Option High Efficiency T/Y*D181C3,4,W**

| Air Flow CFM | Ent DB (°F) | Ambient Temperature | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 85 | | | | | | 95 | | | | | | 105 | | | | | |
| | | Entering Wet Bulb | | | | | | | | | | | | | | | | | |
| | | 61 | | 67 | | 73 | | 61 | | 67 | | 73 | | 61 | | 67 | | 73 | |
| | | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC |
| 3000* | 75 | 150.0 | 106.0 | 168.0 | 88.9 | 187.7 | 68.3 | 144.0 | 102.3 | 161.4 | 85.3 | 180.6 | 64.8 | 137.5 | 98.4 | 154.4 | 81.6 | 173.0 | 61.2 |
| | 80 | 150.2 | 121.0 | 168.1 | 103.0 | 187.8 | 84.7 | 144.1 | 117.3 | 161.5 | 99.3 | 180.7 | 81.1 | 137.7 | 113.4 | 154.6 | 95.4 | 173.1 | 77.2 |
| | 85 | 150.2 | 135.8 | 168.2 | 117.9 | 187.9 | 99.5 | 144.2 | 132.1 | 161.7 | 114.1 | 180.8 | 95.8 | 137.9 | 128.1 | 154.8 | 110.3 | 173.2 | 92.0 |
| | 90 | 151.8 | 148.3 | 168.4 | 132.7 | 188.0 | 114.2 | 146.3 | 144.5 | 161.9 | 128.9 | 180.9 | 110.5 | 140.5 | 140.5 | 155.0 | 125.0 | 173.3 | 106.7 |
| 3900* | 75 | 161.5 | 119.8 | 180.4 | 96.8 | 201.0 | 72.4 | 154.8 | 115.8 | 173.1 | 93.0 | 193.0 | 68.7 | 147.7 | 111.8 | 165.4 | 89.0 | 184.6 | 64.9 |
| | 80 | 161.7 | 138.5 | 180.6 | 115.6 | 201.1 | 92.3 | 154.9 | 134.5 | 173.3 | 111.7 | 193.1 | 88.5 | 147.8 | 130.4 | 165.6 | 107.6 | 184.7 | 84.5 |
| | 85 | 162.6 | 155.0 | 180.8 | 134.3 | 201.3 | 110.9 | 156.3 | 150.7 | 173.5 | 130.3 | 193.3 | 107.0 | 149.8 | 146.3 | 165.8 | 126.3 | 184.9 | 103.0 |
| | 90 | 168.5 | 168.5 | 180.9 | 152.7 | 201.5 | 129.4 | 162.8 | 162.8 | 173.6 | 148.8 | 193.5 | 125.5 | 156.8 | 156.8 | 165.9 | 144.6 | 185.1 | 121.5 |
| 4800 | 75 | 169.6 | 132.0 | 189.0 | 104.3 | 210.2 | 75.6 | 162.4 | 127.9 | 181.2 | 100.4 | 201.5 | 71.8 | 154.7 | 123.7 | 172.8 | 96.2 | 192.4 | 67.9 |
| | 80 | 170.0 | 154.3 | 189.3 | 126.8 | 210.4 | 98.8 | 162.9 | 150.3 | 181.4 | 122.7 | 201.7 | 94.8 | 155.4 | 146.0 | 173.1 | 118.6 | 192.6 | 90.7 |
| | 85 | 173.4 | 173.4 | 189.5 | 149.0 | 210.6 | 121.0 | 166.9 | 166.9 | 181.7 | 145.0 | 201.9 | 117.0 | 160.5 | 160.5 | 173.3 | 140.7 | 192.8 | 112.9 |
| | 90 | 182.3 | 182.3 | 189.9 | 171.1 | 210.8 | 143.1 | 176.1 | 176.1 | 182.2 | 167.0 | 202.2 | 139.1 | 169.5 | 169.5 | 169.3 | 169.3 | 193.1 | 134.9 |
| 5400 | 75 | 173.7 | 139.5 | 193.4 | 108.9 | 214.8 | 77.5 | 166.2 | 135.3 | 185.2 | 104.9 | 205.8 | 73.7 | 158.3 | 130.9 | 176.6 | 100.7 | 196.3 | 69.7 |
| | 80 | 174.6 | 164.4 | 193.7 | 133.7 | 215.0 | 102.8 | 164.2 | 164.2 | 185.5 | 129.6 | 206.0 | 98.7 | 159.8 | 153.0 | 176.9 | 125.4 | 196.5 | 94.5 |
| | 85 | 180.1 | 180.1 | 193.9 | 158.1 | 215.3 | 127.3 | 173.8 | 173.8 | 185.8 | 154.0 | 206.3 | 123.2 | 167.0 | 167.0 | 177.2 | 149.7 | 196.8 | 119.0 |
| | 90 | 189.8 | 189.8 | 189.8 | 189.8 | 215.5 | 151.6 | 183.3 | 183.3 | 183.3 | 183.3 | 206.6 | 147.6 | 176.4 | 176.4 | 179.1 | 170.7 | 197.1 | 143.4 |
| 6000 | 75 | 177.2 | 146.6 | 197.0 | 113.2 | 218.7 | 79.2 | 169.4 | 142.4 | 188.6 | 109.1 | 209.4 | 75.4 | 161.3 | 138.0 | 179.8 | 104.9 | 199.6 | 71.3 |
| | 80 | 178.8 | 171.0 | 197.4 | 140.3 | 218.9 | 106.5 | 169.8 | 169.8 | 189.0 | 136.2 | 209.6 | 102.4 | 164.0 | 161.4 | 180.1 | 131.9 | 199.8 | 98.2 |
| | 85 | 186.4 | 186.4 | 197.6 | 166.9 | 219.2 | 133.3 | 179.8 | 179.8 | 189.3 | 162.7 | 209.9 | 129.2 | 172.8 | 172.8 | 180.6 | 158.4 | 200.2 | 125.0 |
| | 90 | 196.7 | 196.7 | 196.5 | 196.5 | 219.4 | 159.9 | 189.8 | 189.8 | 189.7 | 189.7 | 210.2 | 155.8 | 182.6 | 182.6 | 183.8 | 180.6 | 200.5 | 151.6 |
| 6600 | 75 | 180.2 | 153.4 | 200.2 | 117.4 | 221.9 | 80.8 | 172.3 | 149.2 | 191.5 | 113.2 | 212.4 | 76.8 | 164.0 | 144.8 | 182.5 | 108.9 | 202.4 | 72.6 |
| | 80 | 182.9 | 179.1 | 200.5 | 146.6 | 222.1 | 110.1 | 175.6 | 174.4 | 191.9 | 142.5 | 212.6 | 105.9 | 167.6 | 167.6 | 182.7 | 138.0 | 202.6 | 101.7 |
| | 85 | 192.0 | 192.0 | 201.0 | 175.4 | 222.5 | 139.1 | 185.1 | 185.1 | 192.5 | 171.2 | 213.0 | 134.9 | 177.8 | 177.8 | 183.6 | 166.9 | 203.0 | 130.7 |
| | 90 | 202.7 | 202.7 | 204.3 | 199.9 | 222.7 | 167.8 | 195.5 | 195.5 | 196.3 | 195.1 | 213.2 | 163.5 | 188.0 | 188.0 | 187.9 | 187.9 | 203.2 | 159.2 |
| 7200 | 75 | 182.8 | 160.1 | 202.8 | 121.3 | 224.7 | 82.1 | 174.8 | 155.8 | 194.0 | 117.1 | 214.9 | 78.0 | 166.4 | 151.4 | 184.7 | 112.8 | 204.7 | 73.7 |
| | 80 | 186.0 | 186.0 | 203.2 | 152.8 | 224.9 | 113.4 | 179.1 | 179.1 | 194.2 | 148.3 | 215.2 | 109.3 | 171.8 | 171.8 | 185.0 | 143.9 | 205.0 | 105.0 |
| | 85 | 196.9 | 196.9 | 204.0 | 183.7 | 225.2 | 144.5 | 189.8 | 189.8 | 195.4 | 179.5 | 215.6 | 140.5 | 182.3 | 182.3 | 182.1 | 182.1 | 205.4 | 136.2 |
| | 90 | 207.9 | 207.9 | 207.8 | 207.8 | 225.4 | 175.3 | 200.6 | 200.6 | 200.5 | 200.5 | 215.8 | 171.1 | 192.8 | 192.8 | 192.6 | 192.6 | 205.7 | 166.7 |

**continued on next page**

**Table 19. (continued)Gross Cooling Capacities 15 Tons Three Phase Dehumidification (Hot Gas Reheat) or TXV Option High Efficiency T/Y*D181C3,4,W**

| Air Flow CFM | Ent DB (°F) | Ambient Temperature | | | | | |
|---|---|---|---|---|---|---|---|
| | | 115 | | | | | |
| | | Entering Wet Bulb | | | | | |
| | | MBH | SHC | MBH | SHC | MBH | SHC |
| 3000* | 75 | 130.8 | 94.4 | 147.1 | 77.8 | 165.0 | 57.5 |
| | 80 | 131.0 | 109.3 | 147.3 | 91.5 | 165.1 | 73.3 |
| | 85 | 130.7 | 122.5 | 147.5 | 106.2 | 165.2 | 88.0 |
| | 90 | 134.9 | 134.9 | 147.7 | 120.9 | 165.4 | 102.7 |
| 3900* | 75 | 140.2 | 107.5 | 157.2 | 84.8 | 175.7 | 61.0 |
| | 80 | 140.4 | 126.1 | 157.4 | 103.5 | 175.8 | 80.4 |
| | 85 | 142.9 | 141.9 | 157.7 | 122.0 | 176.0 | 98.9 |
| | 90 | 150.5 | 150.5 | 157.9 | 140.4 | 176.2 | 117.3 |
| 4800 | 75 | 146.6 | 119.2 | 164.1 | 91.9 | 182.8 | 63.9 |
| | 80 | 147.5 | 139.4 | 164.4 | 114.3 | 183.0 | 86.5 |
| | 85 | 153.7 | 153.7 | 164.6 | 136.3 | 183.3 | 108.6 |
| | 90 | 162.5 | 162.5 | 165.7 | 155.6 | 183.6 | 130.6 |
| 5400 | 75 | 150.0 | 126.5 | 167.6 | 96.4 | 186.4 | 65.6 |
| | 80 | 152.1 | 148.0 | 167.9 | 121.0 | 186.6 | 90.3 |
| | 85 | 159.9 | 159.9 | 168.2 | 145.3 | 186.9 | 114.7 |
| | 90 | 169.1 | 169.1 | 170.7 | 165.6 | 187.2 | 139.0 |
| 6000 | 75 | 152.8 | 133.5 | 170.5 | 100.5 | 189.4 | 67.0 |
| | 80 | 155.8 | 155.8 | 170.9 | 127.5 | 189.6 | 93.9 |
| | 85 | 165.3 | 165.3 | 171.5 | 153.9 | 190.0 | 120.6 |
| | 90 | 174.9 | 174.9 | 174.8 | 174.8 | 190.2 | 146.9 |
| 6600 | 75 | 155.4 | 140.2 | 172.9 | 104.5 | 191.9 | 68.2 |
| | 80 | 160.2 | 160.2 | 173.2 | 133.4 | 192.1 | 97.3 |
| | 85 | 170.1 | 170.1 | 169.9 | 169.9 | 192.5 | 126.2 |
| | 90 | 180.0 | 180.0 | 179.9 | 179.9 | 192.8 | 154.7 |
| 7200 | 75 | 157.7 | 146.8 | 175.0 | 108.4 | 193.9 | 69.4 |
| | 80 | 164.1 | 164.1 | 175.4 | 139.3 | 194.3 | 100.6 |
| | 85 | 174.3 | 174.3 | 177.1 | 167.2 | 194.7 | 131.7 |
| | 90 | 184.5 | 184.5 | 184.4 | 184.4 | 195.1 | 162.2 |

**Notes:**

1. All capacities shown are gross and have not considered indoor fan heat. To obtain **NET** cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBH = Total Gross Capacity
3. SHC = Sensible Heat Capacity
   *For 3000 and 3900 CFM - Unit applications below 320 CFM/Ton are only applicable to TCD models (No Gas Heat). See below for restrictions:

- Electric heaters restricted on applications below 320 CFM/Ton.
- Dehumidification (Hot Gas Reheat) or TXV with Frostat and Crankcase Heaters are required on applications below 320 CFM/Ton.

**Table 20. Gross Cooling Capacities 17½ Tons Three Phase Standard Refrigeration Option High Efficiency T/YC*211C3,4,W**

| Air Flow CFM | Ent DB (°F) | Ambient Temperature 85 Entering Wet Bulb 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC | 95 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC | 105 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6300 | 75 | 200.0 | 169.0 | 224.0 | 130.0 | 233.0 | 86.2 | 184.0 | 162.0 | 215.0 | 125.0 | 231.0 | 83.3 | 169.0 | 154.0 | 199.0 | 118.0 | 226.0 | 79.3 |
| | 80 | 202.0 | 202.0 | 225.0 | 161.0 | 236.0 | 118.0 | 190.0 | 190.0 | 216.0 | 158.0 | 234.0 | 117.0 | 177.0 | 177.0 | 200.0 | 151.0 | 227.0 | 112.0 |
| | 85 | 216.0 | 216.0 | 227.0 | 191.0 | 239.0 | 143.0 | 206.0 | 206.0 | 217.0 | 190.0 | 236.0 | 146.0 | 193.0 | 193.0 | 202.0 | 184.0 | 228.0 | 144.0 |
| | 90 | 227.0 | 227.0 | 230.0 | 221.0 | 242.0 | 169.0 | 220.0 | 220.0 | 220.0 | 220.0 | 239.0 | 175.0 | 209.0 | 209.0 | 209.0 | 209.0 | 229.0 | 174.0 |
| 7000 | 75 | 205.0 | 180.0 | 226.0 | 134.0 | 234.0 | 87.6 | 190.0 | 172.0 | 219.0 | 131.0 | 233.0 | 84.8 | 174.0 | 164.0 | 204.0 | 124.0 | 228.0 | 80.8 |
| | 80 | 210.0 | 210.0 | 228.0 | 167.0 | 237.0 | 119.0 | 198.0 | 198.0 | 220.0 | 167.0 | 236.0 | 120.0 | 185.0 | 185.0 | 205.0 | 160.0 | 229.0 | 117.0 |
| | 85 | 223.0 | 223.0 | 230.0 | 199.0 | 241.0 | 145.0 | 215.0 | 215.0 | 222.0 | 202.0 | 238.0 | 150.0 | 202.0 | 202.0 | 209.0 | 197.0 | 231.0 | 150.0 |
| | 90 | 232.0 | 232.0 | 233.0 | 230.0 | 244.0 | 173.0 | 227.0 | 227.0 | 227.0 | 227.0 | 241.0 | 180.0 | 218.0 | 218.0 | 218.0 | 218.0 | 232.0 | 182.0 |
| 7700 | 75 | 210.0 | 190.0 | 228.0 | 138.0 | 235.0 | 88.9 | 195.0 | 183.0 | 222.0 | 137.0 | 234.0 | 86.0 | 179.0 | 175.0 | 208.0 | 130.0 | 229.0 | 82.4 |
| | 80 | 217.0 | 217.0 | 231.0 | 173.0 | 239.0 | 120.0 | 206.0 | 206.0 | 223.0 | 174.0 | 237.0 | 121.0 | 192.0 | 192.0 | 209.0 | 169.0 | 231.0 | 121.0 |
| | 85 | 228.0 | 228.0 | 232.0 | 206.0 | 242.0 | 148.0 | 221.0 | 221.0 | 226.0 | 211.0 | 240.0 | 153.0 | 210.0 | 210.0 | 214.0 | 209.0 | 234.0 | 156.0 |
| | 90 | 235.0 | 235.0 | 235.0 | 235.0 | 245.0 | 176.0 | 232.0 | 232.0 | 232.0 | 232.0 | 243.0 | 185.0 | 224.0 | 224.0 | 224.0 | 224.0 | 235.0 | 189.0 |
| 8400 | 75 | 214.0 | 200.0 | 230.0 | 141.0 | 236.0 | 90.3 | 200.0 | 193.0 | 224.0 | 141.0 | 235.0 | 87.4 | 181.0 | 181.0 | 211.0 | 136.0 | 230.0 | 83.8 |
| | 80 | 222.0 | 222.0 | 232.0 | 177.0 | 239.0 | 133.0 | 213.0 | 213.0 | 226.0 | 181.0 | 238.0 | 123.0 | 199.0 | 199.0 | 213.0 | 178.0 | 233.0 | 124.0 |
| | 85 | 231.0 | 231.0 | 234.0 | 211.0 | 243.0 | 149.0 | 226.0 | 226.0 | 229.0 | 220.0 | 241.0 | 155.0 | 216.0 | 216.0 | 216.0 | 216.0 | 235.0 | 161.0 |
| | 90 | 238.0 | 238.0 | 238.0 | 238.0 | 246.0 | 178.0 | 235.0 | 235.0 | 235.0 | 235.0 | 244.0 | 189.0 | 229.0 | 229.0 | 229.0 | 229.0 | 237.0 | 195.0 |

| Air Flow CFM | Ent DB (°F) | Ambient Temperature 115 Entering Wet Bulb 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC |
|---|---|---|---|---|---|---|---|
| 6300 | 75 | 147.0 | 147.0 | 180.0 | 113.0 | 214.0 | 74.2 |
| | 80 | 164.0 | 164.0 | 181.0 | 142.0 | 214.0 | 107.0 |
| | 85 | 180.0 | 180.0 | 185.0 | 176.0 | 215.0 | 139.0 |
| | 90 | 196.0 | 196.0 | 195.0 | 195.0 | 217.0 | 171.0 |
| 7000 | 75 | 155.0 | 155.0 | 184.0 | 116.0 | 218.0 | 76.0 |
| | 80 | 171.0 | 171.0 | 186.0 | 152.0 | 218.0 | 112.0 |
| | 85 | 188.0 | 188.0 | 191.0 | 189.0 | 219.0 | 147.0 |
| | 90 | 205.0 | 205.0 | 204.0 | 204.0 | 221.0 | 181.0 |
| 7700 | 75 | 161.0 | 161.0 | 188.0 | 122.0 | 220.0 | 77.7 |
| | 80 | 178.0 | 178.0 | 190.0 | 161.0 | 221.0 | 116.0 |
| | 85 | 196.0 | 196.0 | 195.0 | 195.0 | 222.0 | 154.0 |
| | 90 | 213.0 | 213.0 | 212.0 | 212.0 | 224.0 | 191.0 |
| 8400 | 75 | 166.0 | 166.0 | 191.0 | 128.0 | 222.0 | 79.2 |
| | 80 | 184.0 | 184.0 | 194.0 | 170.0 | 223.0 | 121.0 |
| | 85 | 203.0 | 203.0 | 202.0 | 202.0 | 224.0 | 162.0 |
| | 90 | 219.0 | 219.0 | 219.0 | 219.0 | 227.0 | 199.0 |

**Notes:**

1. All capacities shown are gross and have not considered indoor fan heat. To obtain **NET** cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBH = Total Gross Capacity
3. SHC = Sensible Heat Capacity

*Indicates both downflow and horizontal units.

**Table 21. Gross Cooling Capacities 17½ Tons Three Phase TXV Option High Efficiency T/Y*D211C3,4,W**

| Air Flow CFM | Ent DB (°F) | Ambient Temperature | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 85 | | | | | | 95 | | | | | | 105 | | | | | |
| | | Entering Wet Bulb | | | | | | | | | | | | | | | | | |
| | | 61 | | 67 | | 73 | | 61 | | 67 | | 73 | | 61 | | 67 | | 73 | |
| | | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC |
| 3500* | 75 | 178.1 | 125.2 | 199.2 | 102.8 | 222.1 | 78.3 | 170.4 | 120.6 | 190.9 | 98.4 | 213.1 | 74.0 | 162.3 | 115.7 | 182.1 | 93.7 | 203.6 | 69.5 |
| | 80 | 178.3 | 143.9 | 199.4 | 121.1 | 222.2 | 97.7 | 170.6 | 139.3 | 191.1 | 116.5 | 213.3 | 93.4 | 162.4 | 134.5 | 182.3 | 111.8 | 203.8 | 88.8 |
| | 85 | 178.6 | 163.0 | 199.6 | 139.7 | 222.4 | 116.2 | 171.0 | 158.4 | 191.3 | 135.0 | 213.5 | 111.9 | 163.0 | 153.7 | 182.5 | 130.2 | 204.0 | 107.2 |
| | 90 | 181.8 | 177.2 | 199.8 | 158.2 | 222.6 | 134.6 | 175.2 | 171.7 | 191.5 | 153.5 | 213.7 | 130.2 | 168.1 | 165.8 | 182.7 | 148.7 | 204.2 | 125.5 |
| 4550* | 75 | 190.8 | 142.2 | 212.7 | 113.0 | 236.1 | 82.3 | 182.3 | 137.4 | 203.5 | 108.3 | 226.2 | 78.0 | 173.3 | 132.4 | 193.9 | 103.4 | 215.8 | 73.4 |
| | 80 | 191.2 | 166.4 | 213.0 | 136.6 | 236.3 | 106.8 | 182.8 | 161.6 | 203.8 | 131.8 | 226.5 | 102.3 | 173.9 | 156.6 | 194.1 | 126.9 | 216.0 | 97.5 |
| | 85 | 193.7 | 186.8 | 213.2 | 160.2 | 236.6 | 130.2 | 186.2 | 180.5 | 204.1 | 155.4 | 226.8 | 125.6 | 178.3 | 173.9 | 194.4 | 150.4 | 216.3 | 120.8 |
| | 90 | 201.2 | 201.2 | 213.6 | 183.9 | 236.9 | 153.5 | 194.2 | 194.2 | 204.7 | 179.3 | 227.0 | 148.9 | 186.6 | 186.6 | 195.2 | 174.4 | 216.6 | 144.0 |
| 5600 | 75 | 199.5 | 157.9 | 221.6 | 122.1 | 245.5 | 85.7 | 190.5 | 153.0 | 212.0 | 117.4 | 234.9 | 81.2 | 180.9 | 147.9 | 201.7 | 112.4 | 223.8 | 76.5 |
| | 80 | 200.9 | 187.5 | 221.9 | 150.5 | 245.8 | 114.8 | 192.2 | 182.6 | 212.3 | 145.8 | 235.3 | 110.1 | 179.9 | 179.9 | 202.0 | 140.8 | 224.1 | 105.2 |
| | 85 | 207.3 | 204.9 | 222.5 | 179.2 | 246.2 | 142.9 | 199.3 | 198.8 | 213.0 | 174.6 | 235.4 | 138.1 | 190.6 | 190.6 | 202.7 | 169.6 | 224.4 | 133.3 |
| | 90 | 217.4 | 217.4 | 224.2 | 208.4 | 246.5 | 171.0 | 209.5 | 209.5 | 214.9 | 203.9 | 235.8 | 166.2 | 201.4 | 201.4 | 201.3 | 201.3 | 224.8 | 161.4 |
| 6300 | 75 | 203.9 | 167.7 | 226.2 | 127.9 | 250.3 | 87.7 | 194.8 | 162.9 | 216.2 | 123.2 | 239.2 | 83.0 | 185.0 | 157.7 | 205.6 | 118.1 | 227.8 | 78.4 |
| | 80 | 202.9 | 202.9 | 226.5 | 159.5 | 250.5 | 119.7 | 195.2 | 195.2 | 216.6 | 154.8 | 239.4 | 114.8 | 188.9 | 182.8 | 206.0 | 149.7 | 228.1 | 110.1 |
| | 85 | 214.6 | 214.6 | 227.5 | 191.5 | 250.9 | 150.9 | 206.7 | 206.7 | 217.4 | 186.6 | 239.8 | 146.1 | 198.1 | 198.1 | 207.2 | 181.8 | 228.5 | 141.3 |
| | 90 | 226.3 | 226.3 | 226.2 | 226.2 | 251.4 | 182.3 | 218.0 | 218.0 | 221.1 | 212.1 | 240.4 | 177.4 | 209.4 | 209.4 | 211.9 | 204.9 | 228.9 | 172.4 |
| 7000 | 75 | 207.8 | 177.3 | 229.9 | 133.4 | 254.2 | 89.6 | 198.5 | 172.5 | 219.7 | 128.6 | 242.8 | 84.9 | 188.5 | 167.4 | 208.8 | 123.5 | 231.1 | 80.1 |
| | 80 | 212.0 | 205.1 | 230.4 | 168.2 | 254.5 | 124.4 | 203.5 | 198.3 | 220.0 | 163.5 | 243.1 | 119.6 | 194.3 | 190.9 | 209.4 | 158.4 | 231.4 | 114.7 |
| | 85 | 221.9 | 221.9 | 231.8 | 203.6 | 254.9 | 158.8 | 213.4 | 213.4 | 221.6 | 198.6 | 243.5 | 153.8 | 204.7 | 204.7 | 211.2 | 193.7 | 231.8 | 149.0 |
| | 90 | 234.1 | 234.1 | 236.8 | 229.0 | 255.6 | 193.4 | 225.4 | 225.4 | 227.5 | 221.6 | 244.3 | 188.5 | 216.5 | 216.5 | 217.7 | 214.0 | 232.5 | 183.4 |
| 7700 | 75 | 211.3 | 186.8 | 233.0 | 138.7 | 257.4 | 91.4 | 201.8 | 181.9 | 222.6 | 133.9 | 245.7 | 86.5 | 191.8 | 176.7 | 211.5 | 128.8 | 233.8 | 81.7 |
| | 80 | 217.2 | 212.9 | 233.7 | 176.7 | 257.8 | 129.0 | 208.4 | 206.0 | 223.3 | 171.9 | 246.1 | 124.1 | 199.0 | 198.7 | 212.3 | 166.8 | 234.2 | 119.3 |
| | 85 | 228.2 | 228.2 | 235.8 | 215.3 | 258.2 | 166.4 | 219.5 | 219.5 | 225.5 | 210.3 | 246.5 | 161.4 | 210.4 | 210.4 | 210.3 | 210.3 | 234.6 | 156.6 |
| | 90 | 241.0 | 241.0 | 242.8 | 238.1 | 259.2 | 204.2 | 231.9 | 231.9 | 233.1 | 230.7 | 247.7 | 199.3 | 222.4 | 222.4 | 222.3 | 222.3 | 235.7 | 194.2 |
| 8400 | 75 | 214.5 | 195.9 | 235.7 | 143.9 | 260.2 | 92.9 | 204.9 | 191.1 | 225.0 | 139.0 | 248.3 | 88.0 | 190.7 | 190.7 | 213.7 | 133.9 | 236.1 | 83.2 |
| | 80 | 221.9 | 220.3 | 236.6 | 185.0 | 260.5 | 133.5 | 212.1 | 212.1 | 225.8 | 180.0 | 248.6 | 128.5 | 203.1 | 203.1 | 214.8 | 175.0 | 236.5 | 123.7 |
| | 85 | 233.9 | 233.9 | 239.5 | 226.8 | 261.0 | 173.9 | 224.8 | 224.8 | 224.7 | 224.7 | 249.2 | 168.9 | 215.5 | 215.5 | 215.4 | 215.4 | 236.9 | 163.8 |
| | 90 | 247.0 | 247.0 | 248.0 | 246.9 | 262.4 | 214.8 | 237.7 | 237.7 | 237.6 | 237.6 | 250.7 | 209.8 | 227.8 | 227.8 | 227.8 | 227.8 | 238.6 | 204.7 |

**continued on next page**

**Table 21. (continued)Gross Cooling Capacities 17½ Tons Three Phase TXV Option High Efficiency T/Y*D211C3,4,W**

| Air Flow CFM | Ent DB (°F) | Ambient Temperature 115 Entering Wet Bulb | | | | | |
|---|---|---|---|---|---|---|---|
| | | MBH | SHC | MBH | SHC | MBH | SHC |
| 3500* | 75 | 153.6 | 110.7 | 172.8 | 88.9 | 193.6 | 64.9 |
| | 80 | 153.8 | 129.5 | 173.1 | 106.8 | 193.7 | 84.0 |
| | 85 | 151.7 | 151.7 | 173.3 | 125.2 | 194.0 | 102.4 |
| | 90 | 160.6 | 160.1 | 173.5 | 143.8 | 194.2 | 120.6 |
| 4550* | 75 | 163.8 | 127.2 | 183.7 | 98.3 | 204.8 | 68.6 |
| | 80 | 164.7 | 151.5 | 184.0 | 121.8 | 205.1 | 92.6 |
| | 85 | 169.9 | 167.2 | 184.3 | 145.3 | 205.3 | 115.8 |
| | 90 | 178.5 | 178.5 | 185.2 | 169.3 | 205.6 | 139.0 |
| 5600 | 75 | 171.0 | 142.6 | 190.9 | 107.3 | 212.2 | 71.6 |
| | 80 | 173.8 | 166.9 | 191.2 | 135.6 | 212.5 | 100.2 |
| | 85 | 182.0 | 182.0 | 192.0 | 164.4 | 212.8 | 128.2 |
| | 90 | 192.6 | 192.6 | 195.4 | 187.3 | 213.2 | 156.4 |
| 6300 | 75 | 174.8 | 152.4 | 194.5 | 112.9 | 215.8 | 73. |
| | 80 | 179.6 | 175.4 | 194.9 | 144.5 | 216.1 | 105.0 |
| | 85 | 189.1 | 189.1 | 196.3 | 176.6 | 216.5 | 136.2 |
| | 90 | 200.2 | 200.2 | 202.0 | 197.2 | 217.2 | 167.6 |
| 7000 | 75 | 178.2 | 162.0 | 197.4 | 118.3 | 218.8 | 75.1 |
| | 80 | 184.7 | 183.5 | 198.1 | 153.1 | 219.2 | 109.6 |
| | 85 | 195.4 | 195.4 | 200.2 | 188.5 | 219.6 | 143.9 |
| | 90 | 206.9 | 206.9 | 207.6 | 206.7 | 220.6 | 178.6 |
| 7700 | 75 | 181.3 | 171.3 | 199.9 | 123.5 | 221.3 | 76.7 |
| | 80 | 189.0 | 189.0 | 200.8 | 161.5 | 221.7 | 114.1 |
| | 85 | 200.8 | 200.8 | 200.7 | 200.7 | 222.2 | 151.5 |
| | 90 | 212.6 | 212.6 | 212.6 | 212.6 | 223.5 | 189.2 |
| 8400 | 75 | 181.3 | 181.3 | 201.9 | 128.6 | 223.4 | 78.2 |
| | 80 | 193.4 | 193.4 | 203.2 | 169.7 | 223.8 | 118.5 |
| | 85 | 205.5 | 205.5 | 207.7 | 200.6 | 224.4 | 158.9 |
| | 90 | 217.8 | 217.8 | 217.7 | 217.7 | 226.3 | 199.7 |

**Notes:**

1. All capacities shown are gross and have not considered indoor fan heat. To obtain **NET** cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBH = Total Gross Capacity
3. SHC = Sensible Heat Capacity

*For 3500 and 4550 CFM - Unit applications below 320 CFM/Ton are only applicable to TCD models (No Gas Heat). See below for restrictions:

- Electric heaters restricted on applications below 320 CFM/Ton.
- Dehumidification (Hot Gas Reheat) or TXV with Frostat and Crankcase Heaters are required on applications below 320 CFM/Ton.

**Table 22. Gross Cooling Capacities 20 Tons Three Phase Standard Refrigeration Option High Efficiency T/YC*241C3,4,W**

| Air Flow CFM | Ent DB (°F) | Ambient Temperature 85 Entering Wet Bulb 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC | 95 Entering Wet Bulb 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC | 105 Entering Wet Bulb 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7200 | 75 | 246 | 205 | 273 | 158 | 284 | 105 | 228 | 196 | 263 | 152 | 280 | 101 | 208 | 186 | 246 | 145 | 273 | 96.5 |
| | 80 | 250 | 245 | 274 | 192 | 287 | 142 | 232 | 232 | 264 | 190 | 283 | 141 | 216 | 216 | 246 | 183 | 274 | 135 |
| | 85 | 263 | 263 | 275 | 227 | 290 | 171 | 251 | 251 | 265 | 228 | 285 | 173 | 236 | 236 | 248 | 221 | 275 | 170 |
| | 90 | 274 | 274 | 278 | 262 | 293 | 201 | 266 | 266 | 268 | 265 | 288 | 206 | 254 | 254 | 254 | 254 | 277 | 205 |
| 8000 | 75 | 253 | 218 | 275 | 163 | 285 | 107 | 234 | 209 | 267 | 159 | 282 | 103 | 214 | 199 | 252 | 152 | 275 | 98.3 |
| | 80 | 257 | 257 | 277 | 199 | 289 | 144 | 243 | 243 | 268 | 199 | 285 | 143 | 227 | 227 | 252 | 194 | 277 | 140 |
| | 85 | 270 | 270 | 279 | 236 | 292 | 174 | 261 | 261 | 270 | 240 | 288 | 177 | 247 | 247 | 255 | 237 | 278 | 177 |
| | 90 | 280 | 280 | 282 | 273 | 295 | 205 | 274 | 274 | 274 | 274 | 291 | 212 | 264 | 264 | 264 | 264 | 280 | 214 |
| 8800 | 75 | 258 | 230 | 278 | 167 | 287 | 109 | 240 | 221 | 270 | 164 | 284 | 105 | 219 | 211 | 256 | 159 | 277 | 100 |
| | 80 | 264 | 264 | 280 | 204 | 290 | 155 | 252 | 252 | 271 | 208 | 287 | 145 | 236 | 236 | 257 | 205 | 279 | 144 |
| | 85 | 276 | 276 | 282 | 244 | 293 | 177 | 268 | 268 | 274 | 250 | 290 | 181 | 256 | 256 | 260 | 251 | 281 | 182 |
| | 90 | 285 | 285 | 286 | 281 | 297 | 209 | 280 | 280 | 280 | 280 | 293 | 217 | 271 | 271 | 271 | 271 | 283 | 221 |
| 9600 | 75 | 262 | 240 | 280 | 169 | 288 | 110 | 246 | 233 | 273 | 169 | 285 | 106 | 225 | 223 | 260 | 166 | 278 | 102 |
| | 80 | 270 | 270 | 282 | 209 | 291 | 161 | 260 | 260 | 274 | 215 | 288 | 147 | 245 | 245 | 261 | 215 | 281 | 147 |
| | 85 | 280 | 280 | 284 | 250 | 295 | 179 | 274 | 274 | 277 | 260 | 291 | 184 | 263 | 263 | 265 | 263 | 282 | 186 |
| | 90 | 288 | 288 | 288 | 288 | 298 | 212 | 284 | 284 | 284 | 284 | 294 | 222 | 276 | 276 | 276 | 276 | 285 | 228 |

| Air Flow CFM | Ent DB (°F) | Ambient Temperature 115 Entering Wet Bulb 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC |
|---|---|---|---|---|---|---|---|
| 7200 | 75 | 191 | 176 | 222 | 136 | 261 | 91.5 |
| | 80 | 201 | 201 | 223 | 172 | 261 | 130 |
| | 85 | 219 | 219 | 225 | 211 | 262 | 168 |
| | 90 | 239 | 239 | 237 | 237 | 262 | 205 |
| 8000 | 75 | 194 | 189 | 228 | 142 | 266 | 93.6 |
| | 80 | 210 | 210 | 228 | 184 | 266 | 136 |
| | 85 | 230 | 230 | 232 | 226 | 266 | 177 |
| | 90 | 250 | 250 | 248 | 248 | 267 | 218 |
| 8800 | 75 | 199 | 199 | 232 | 149 | 269 | 95.5 |
| | 80 | 218 | 218 | 233 | 195 | 269 | 141 |
| | 85 | 240 | 240 | 238 | 238 | 269 | 185 |
| | 90 | 258 | 258 | 258 | 258 | 271 | 229 |
| 9600 | 75 | 205 | 205 | 236 | 156 | 271 | 97.1 |
| | 80 | 226 | 226 | 237 | 205 | 271 | 146 |
| | 85 | 248 | 248 | 246 | 246 | 272 | 193 |
| | 90 | 264 | 264 | 265 | 265 | 275 | 240 |

**Notes:**

1. All capacities shown are gross and have not considered indoor fan heat. To obtain **NET** cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBH = Total Gross Capacity
3. SHC = Sensible Heat Capacity

*Indicates both downflow and horizontal units.

**Table 23. Gross Cooling Capacities 20 Tons Three Phase TXV Option High Efficiency T/Y*D241C3,4,W**

| Air Flow CFM | Ent DB (°F) | Ambient Temperature | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 85 | | | | | | 95 | | | | | | 105 | | | | | |
| | | Entering Wet Bulb | | | | | | | | | | | | | | | | | |
| | | 61 | | 67 | | 73 | | 61 | | 67 | | 73 | | 61 | | 67 | | 73 | |
| | | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC |
| 4000* | 75 | 208.5 | 149.1 | 233.3 | 122.6 | 260.1 | 94.5 | 199.6 | 143.8 | 223.6 | 117.3 | 249.8 | 89.3 | 190.1 | 138.1 | 213.4 | 111.9 | 238.6 | 84.0 |
| | 80 | 208.7 | 171.1 | 233.4 | 144.4 | 260.2 | 117.1 | 199.9 | 165.6 | 223.8 | 139.1 | 249.8 | 111.8 | 190.4 | 159.9 | 213.6 | 133.4 | 238.7 | 106.3 |
| | 85 | 209.5 | 193.0 | 233.6 | 166.3 | 260.3 | 138.9 | 200.8 | 187.5 | 224.0 | 160.9 | 249.9 | 133.7 | 191.4 | 181.7 | 213.8 | 155.2 | 238.9 | 128.1 |
| | 90 | 212.7 | 212.7 | 233.9 | 188.1 | 260.5 | 160.6 | 205.2 | 205.2 | 224.3 | 182.6 | 250.1 | 155.2 | 197.4 | 197.4 | 214.1 | 176.8 | 239.1 | 149.7 |
| 5200* | 75 | 223.8 | 169.6 | 249.5 | 135.2 | 277.5 | 99.6 | 213.8 | 163.8 | 238.8 | 129.6 | 265.8 | 94.2 | 203.4 | 157.8 | 227.5 | 123.9 | 253.4 | 88.6 |
| | 80 | 224.5 | 197.4 | 249.7 | 163.1 | 277.6 | 128.2 | 214.8 | 191.6 | 239.1 | 157.5 | 265.9 | 122.7 | 204.4 | 185.6 | 227.8 | 151.6 | 253.6 | 117.0 |
| | 85 | 226.7 | 222.0 | 249.9 | 190.8 | 277.9 | 155.9 | 217.9 | 215.9 | 239.4 | 185.1 | 266.2 | 150.3 | 208.8 | 208.8 | 228.2 | 179.2 | 253.8 | 144.5 |
| | 90 | 237.7 | 237.7 | 250.8 | 218.3 | 278.1 | 183.4 | 229.4 | 229.4 | 240.3 | 212.6 | 266.5 | 177.8 | 220.4 | 220.4 | 229.2 | 206.6 | 254.1 | 172.0 |
| 6400 | 75 | 234.3 | 187.9 | 260.5 | 146.4 | 289.2 | 103.7 | 223.9 | 182.1 | 249.1 | 140.7 | 276.7 | 98.2 | 212.8 | 175.9 | 237.1 | 134.8 | 263.3 | 92.5 |
| | 80 | 235.9 | 221.8 | 260.8 | 180.1 | 289.4 | 138.0 | 225.7 | 215.9 | 249.4 | 174.3 | 276.9 | 132.3 | 214.9 | 209.8 | 237.3 | 168.2 | 263.6 | 126.5 |
| | 85 | 243.8 | 243.8 | 261.4 | 213.2 | 289.7 | 171.3 | 234.9 | 234.9 | 250.1 | 207.4 | 277.2 | 165.6 | 225.3 | 225.3 | 238.2 | 201.3 | 264.0 | 159.7 |
| | 90 | 257.1 | 257.1 | 263.2 | 246.7 | 290.1 | 204.5 | 247.9 | 247.9 | 252.1 | 240.8 | 277.5 | 198.6 | 238.1 | 238.1 | 240.6 | 234.8 | 264.3 | 192.6 |
| 7200 | 75 | 239.8 | 199.6 | 266.0 | 153.5 | 295.0 | 106.1 | 229.0 | 193.6 | 254.2 | 147.8 | 282.1 | 100.6 | 217.6 | 187.4 | 241.8 | 141.7 | 268.2 | 94.7 |
| | 80 | 242.3 | 237.5 | 266.3 | 190.6 | 295.3 | 144.0 | 230.8 | 230.8 | 254.6 | 184.7 | 282.3 | 138.3 | 221.3 | 221.1 | 242.2 | 178.6 | 268.6 | 132.4 |
| | 85 | 253.7 | 253.7 | 267.4 | 227.6 | 295.7 | 181.1 | 244.3 | 244.3 | 255.7 | 221.6 | 282.7 | 175.3 | 234.3 | 234.3 | 243.5 | 215.5 | 269.1 | 169.3 |
| | 90 | 267.6 | 267.6 | 270.3 | 265.1 | 296.0 | 217.7 | 257.9 | 257.9 | 257.8 | 257.8 | 283.2 | 211.9 | 247.5 | 247.5 | 247.5 | 247.5 | 269.6 | 205.7 |
| 8000 | 75 | 244.5 | 210.8 | 270.7 | 160.1 | 299.8 | 108.3 | 233.4 | 204.7 | 258.5 | 154.3 | 286.5 | 102.8 | 221.8 | 198.5 | 245.8 | 148.2 | 272.4 | 96.9 |
| | 80 | 248.1 | 248.1 | 271.1 | 200.8 | 300.1 | 149.8 | 238.5 | 238.5 | 259.0 | 194.8 | 286.8 | 144.0 | 228.4 | 228.4 | 246.3 | 188.7 | 272.8 | 138.1 |
| | 85 | 262.5 | 262.5 | 272.6 | 241.6 | 300.5 | 190.5 | 252.6 | 252.6 | 260.7 | 235.6 | 287.3 | 184.7 | 242.1 | 242.1 | 248.1 | 229.3 | 273.3 | 178.7 |
| | 90 | 277.2 | 277.2 | 277.0 | 277.0 | 301.0 | 230.6 | 266.9 | 266.9 | 266.8 | 266.8 | 288.0 | 224.7 | 256.0 | 256.0 | 256.0 | 256.0 | 274.1 | 218.5 |
| 8800 | 75 | 248.5 | 221.7 | 274.6 | 166.6 | 303.7 | 110.4 | 237.3 | 215.6 | 262.1 | 160.6 | 290.2 | 104.8 | 225.4 | 209.3 | 249.0 | 154.6 | 275.8 | 98.9 |
| | 80 | 255.2 | 255.2 | 275.2 | 210.8 | 304.0 | 155.3 | 245.3 | 245.3 | 262.8 | 204.7 | 290.6 | 149.6 | 234.7 | 234.7 | 249.8 | 198.5 | 276.2 | 143.5 |
| | 85 | 270.2 | 270.2 | 277.2 | 255.2 | 304.3 | 199.4 | 259.9 | 259.9 | 265.1 | 249.2 | 291.0 | 193.6 | 249.0 | 249.0 | 252.3 | 242.9 | 276.7 | 187.4 |
| | 90 | 285.5 | 285.5 | 285.4 | 285.4 | 305.2 | 243.0 | 274.8 | 274.8 | 274.8 | 274.8 | 292.1 | 237.2 | 263.5 | 263.5 | 263.5 | 263.5 | 277.9 | 231.0 |
| 9600 | 75 | 252.1 | 232.3 | 277.9 | 172.8 | 306.9 | 112.3 | 240.7 | 226.2 | 265.2 | 166.9 | 293.3 | 106.7 | 228.7 | 219.9 | 251.7 | 160.6 | 278.6 | 100.7 |
| | 80 | 261.5 | 261.5 | 278.7 | 220.4 | 307.3 | 160.6 | 251.2 | 251.2 | 266.1 | 214.3 | 293.8 | 155.0 | 240.4 | 240.4 | 252.8 | 208.0 | 279.2 | 148.9 |
| | 85 | 277.0 | 277.0 | 281.4 | 268.6 | 307.7 | 208.4 | 266.4 | 266.4 | 269.2 | 262.5 | 294.2 | 202.3 | 255.1 | 255.1 | 254.9 | 254.9 | 279.7 | 196.0 |
| | 90 | 292.8 | 292.8 | 292.8 | 292.8 | 308.7 | 255.2 | 281.8 | 281.8 | 281.8 | 281.8 | 295.6 | 249.4 | 270.1 | 270.1 | 270.1 | 270.1 | 281.3 | 243.2 |

**continued on next page**

**Table 23. (continued) Gross Cooling Capacities 20 Tons Three Phase TXV Option High Efficiency T/Y*D241C3,4,W**

| Air Flow CFM | Ent DB (°F) | Ambient Temperature 115 Entering Wet Bulb | | | | | |
|---|---|---|---|---|---|---|---|
| | | MBH | SHC | MBH | SHC | MBH | SHC |
| 4000* | 75 | 180.0 | 132.3 | 202.5 | 105.8 | 226.9 | 78.5 |
| | 80 | 180.4 | 153.9 | 202.7 | 127.6 | 226.9 | 100.7 |
| | 85 | 181.6 | 175.7 | 203.0 | 149.3 | 227.1 | 122.4 |
| | 90 | 189.0 | 189.0 | 203.4 | 170.8 | 227.3 | 143.9 |
| 5200* | 75 | 192.4 | 151.6 | 215.6 | 117.8 | 240.4 | 82.9 |
| | 80 | 193.5 | 179.4 | 215.9 | 145.6 | 240.6 | 111.1 |
| | 85 | 199.6 | 199.6 | 216.3 | 173.0 | 240.8 | 138.6 |
| | 90 | 211.0 | 211.0 | 217.5 | 200.4 | 241.1 | 165.9 |
| 6400 | 75 | 201.1 | 169.5 | 224.3 | 128.7 | 249.4 | 86.5 |
| | 80 | 202.8 | 202.8 | 224.6 | 161.9 | 249.6 | 120.4 |
| | 85 | 215.3 | 215.3 | 225.7 | 195.0 | 250.0 | 153.6 |
| | 90 | 227.7 | 227.7 | 228.5 | 224.2 | 250.4 | 186.3 |
| 7200 | 75 | 205.6 | 180.9 | 228.6 | 138.4 | 253.8 | 88.7 |
| | 80 | 210.7 | 210.7 | 229.2 | 172.3 | 254.2 | 126.2 |
| | 85 | 223.6 | 223.6 | 230.6 | 209.1 | 254.6 | 163.1 |
| | 90 | 236.6 | 236.6 | 236.6 | 236.6 | 255.3 | 199.4 |
| 8000 | 75 | 209.5 | 191.9 | 232.3 | 141.9 | 257.5 | 90.8 |
| | 80 | 217.6 | 217.6 | 232.9 | 182.3 | 258.0 | 131.8 |
| | 85 | 231.0 | 231.0 | 235.0 | 222.9 | 258.3 | 172.1 |
| | 90 | 244.6 | 244.6 | 244.5 | 244.5 | 259.4 | 212.1 |
| 8800 | 75 | 213.0 | 202.7 | 235.3 | 148.3 | 260.6 | 92.7 |
| | 80 | 223.6 | 223.6 | 236.2 | 192.0 | 261.1 | 137.3 |
| | 85 | 237.5 | 237.5 | 239.1 | 236.5 | 261.6 | 180.9 |
| | 90 | 251.5 | 251.5 | 251.5 | 251.5 | 263.0 | 224.5 |
| 9600 | 75 | 216.3 | 213.3 | 237.8 | 154.1 | 263.2 | 94.5 |
| | 80 | 228.8 | 228.8 | 238.9 | 201.5 | 263.8 | 142.6 |
| | 85 | 243.1 | 243.1 | 243.0 | 243.0 | 264.4 | 189.6 |
| | 90 | 257.7 | 257.7 | 257.7 | 257.7 | 266.2 | 236.7 |

**Notes:**

1. All capacities shown are gross and have not considered indoor fan heat. To obtain **NET** cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBH = Total Gross Capacity
3. SHC = Sensible Heat Capacity

*For 4000 and 5200 CFM - Unit applications below 320 CFM/Ton are only applicable to TCD models (No Gas Heat). See below for restrictions:

- Electric heaters restricted on applications below 320 CFM/Ton.
- Dehumidification (Hot Gas Reheat) or TXV with Frostat and Crankcase Heaters are required on applications below 320 CFM/Ton.

**Table 24. Gross Cooling Capacities 20 Tons Three Phase Dehumidification (Hot Gas Reheat) Option High Efficiency T/Y*D241C3,4,W**

| Air Flow CFM | Ent DB (°F) | Ambient Temperature | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 85 | | | | | | 95 | | | | | | 105 | | | | | |
| | | Entering Wet Bulb | | | | | | | | | | | | | | | | | |
| | | 61 | | 67 | | 73 | | 61 | | 67 | | 73 | | 61 | | 67 | | 73 | |
| | | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC |
| 4000* | 75 | 197.5 | 138.9 | 222.3 | 116.0 | 249.8 | 89.2 | 188.8 | 133.4 | 213.0 | 110.6 | 239.6 | 83.8 | 179.7 | 127.6 | 203.1 | 105.0 | 228.8 | 78.3 |
| | 80 | 197.7 | 159.2 | 222.6 | 135.8 | 249.8 | 111.4 | 189.0 | 153.7 | 213.3 | 130.3 | 239.6 | 105.8 | 180.0 | 147.9 | 203.4 | 124.6 | 228.8 | 100.1 |
| | 85 | 198.2 | 179.3 | 222.9 | 156.3 | 250.0 | 132.0 | 189.7 | 173.8 | 213.5 | 150.7 | 239.8 | 126.4 | 180.8 | 168.1 | 203.7 | 145.0 | 229.0 | 120.7 |
| | 90 | 200.5 | 196.8 | 223.1 | 176.7 | 250.3 | 152.5 | 192.8 | 190.9 | 213.7 | 171.0 | 240.1 | 147.0 | 184.8 | 184.8 | 203.8 | 165.2 | 229.3 | 141.2 |
| 5200* | 75 | 213.1 | 158.3 | 239.0 | 127.6 | 267.2 | 94.6 | 203.5 | 152.5 | 228.5 | 121.8 | 255.7 | 88.9 | 193.2 | 146.3 | 217.5 | 115.8 | 243.7 | 83.1 |
| | 80 | 213.5 | 183.8 | 239.3 | 153.7 | 267.4 | 122.1 | 204.0 | 178.0 | 228.9 | 147.9 | 255.9 | 116.3 | 194.0 | 171.9 | 217.9 | 141.9 | 243.9 | 110.3 |
| | 85 | 215.3 | 209.9 | 239.7 | 179.7 | 267.7 | 148.3 | 204.6 | 204.6 | 229.1 | 173.7 | 256.2 | 142.4 | 197.0 | 194.2 | 218.1 | 167.6 | 244.2 | 136.4 |
| | 90 | 224.3 | 224.3 | 240.1 | 205.2 | 268.0 | 174.4 | 216.2 | 216.2 | 229.8 | 199.4 | 256.6 | 168.6 | 207.6 | 207.6 | 218.9 | 193.3 | 244.5 | 162.5 |
| 6400 | 75 | 223.7 | 175.3 | 250.2 | 138.3 | 279.0 | 98.8 | 213.5 | 169.3 | 239.0 | 132.3 | 266.6 | 93.0 | 202.6 | 163.0 | 227.2 | 126.1 | 253.7 | 87.0 |
| | 80 | 224.9 | 206.3 | 250.6 | 169.7 | 279.2 | 131.4 | 214.8 | 200.3 | 239.4 | 163.6 | 266.8 | 125.3 | 204.2 | 194.1 | 227.7 | 157.5 | 253.9 | 119.2 |
| | 85 | 230.5 | 230.5 | 251.0 | 200.6 | 279.6 | 162.9 | 221.7 | 221.7 | 239.8 | 194.5 | 267.2 | 156.9 | 212.5 | 212.5 | 228.1 | 188.2 | 254.3 | 150.7 |
| | 90 | 243.6 | 243.6 | 252.4 | 231.7 | 280.0 | 194.4 | 234.6 | 234.6 | 241.5 | 225.7 | 267.7 | 188.3 | 225.1 | 225.1 | 230.0 | 219.5 | 254.6 | 181.9 |
| 7200 | 75 | 229.2 | 185.9 | 255.7 | 150.2 | 284.8 | 101.3 | 218.6 | 179.7 | 244.1 | 144.1 | 272.0 | 95.4 | 207.4 | 173.3 | 231.9 | 138.0 | 258.6 | 89.4 |
| | 80 | 231.1 | 220.6 | 256.3 | 179.6 | 285.1 | 137.0 | 220.8 | 214.5 | 244.6 | 173.3 | 272.3 | 130.9 | 208.4 | 208.4 | 232.5 | 167.0 | 258.9 | 124.7 |
| | 85 | 240.3 | 240.3 | 256.9 | 213.7 | 285.5 | 172.0 | 231.1 | 231.1 | 245.4 | 207.5 | 272.7 | 165.9 | 221.4 | 221.4 | 233.3 | 201.2 | 259.4 | 159.7 |
| | 90 | 254.0 | 254.0 | 259.2 | 248.5 | 286.0 | 206.7 | 244.5 | 244.5 | 248.0 | 242.5 | 273.2 | 200.5 | 234.5 | 234.5 | 235.0 | 235.0 | 259.8 | 194.1 |
| 8000 | 75 | 233.9 | 196.0 | 260.5 | 150.9 | 289.7 | 103.6 | 223.0 | 189.8 | 248.6 | 144.8 | 276.5 | 97.7 | 211.5 | 183.3 | 236.1 | 138.4 | 262.7 | 91.4 |
| | 80 | 234.8 | 234.8 | 261.0 | 188.8 | 290.0 | 142.4 | 225.4 | 225.4 | 249.0 | 182.5 | 276.9 | 136.2 | 215.6 | 215.6 | 236.5 | 176.1 | 263.1 | 129.9 |
| | 85 | 249.0 | 249.0 | 262.0 | 226.4 | 290.5 | 180.8 | 239.3 | 239.3 | 250.1 | 220.2 | 277.4 | 174.6 | 229.2 | 229.2 | 237.8 | 213.8 | 263.6 | 168.3 |
| | 90 | 263.3 | 263.3 | 263.7 | 263.7 | 291.0 | 218.5 | 253.3 | 253.3 | 254.6 | 253.1 | 277.9 | 212.2 | 242.9 | 242.9 | 243.3 | 243.3 | 264.2 | 205.8 |
| 8800 | 75 | 237.9 | 205.8 | 264.5 | 156.8 | 293.8 | 105.7 | 226.7 | 199.5 | 252.2 | 150.6 | 280.3 | 99.6 | 215.1 | 193.0 | 239.4 | 144.2 | 266.1 | 93.2 |
| | 80 | 242.3 | 242.3 | 265.0 | 197.7 | 294.1 | 147.5 | 232.1 | 232.1 | 252.7 | 191.4 | 280.6 | 141.3 | 221.9 | 221.9 | 239.9 | 184.9 | 266.6 | 135.0 |
| | 85 | 256.5 | 256.5 | 266.4 | 238.7 | 294.7 | 189.2 | 246.5 | 246.5 | 254.3 | 232.4 | 281.0 | 182.8 | 235.9 | 235.9 | 241.8 | 226.0 | 267.0 | 176.3 |
| | 90 | 271.4 | 271.4 | 271.8 | 271.8 | 295.2 | 229.9 | 261.0 | 261.0 | 261.4 | 261.4 | 281.8 | 223.6 | 250.1 | 250.1 | 250.5 | 250.5 | 267.9 | 217.2 |
| 9600 | 75 | 241.4 | 215.2 | 267.8 | 162.4 | 297.1 | 107.4 | 230.0 | 208.9 | 255.3 | 156.2 | 283.4 | 101.2 | 218.2 | 202.3 | 242.2 | 149.7 | 269.0 | 94.8 |
| | 80 | 248.0 | 248.0 | 268.4 | 206.4 | 297.6 | 152.5 | 237.9 | 237.9 | 255.9 | 200.0 | 283.8 | 146.2 | 227.5 | 227.5 | 242.8 | 193.4 | 269.5 | 139.8 |
| | 85 | 263.1 | 263.1 | 270.3 | 250.7 | 298.0 | 197.1 | 252.8 | 252.8 | 258.1 | 244.3 | 284.3 | 190.7 | 241.9 | 241.9 | 245.5 | 237.9 | 270.0 | 184.1 |
| | 90 | 278.6 | 278.6 | 278.9 | 278.9 | 298.9 | 241.1 | 267.9 | 267.9 | 268.3 | 268.3 | 285.3 | 234.7 | 256.6 | 256.6 | 257.0 | 257.0 | 271.1 | 228.2 |

**continued on next page**

**Table 24. (continued)Gross Cooling Capacities 20 Tons Three Phase Dehumidification (Hot Gas Reheat) Option High Efficiency**

| Air Flow CFM | Ent DB (°F) | Ambient Temperature 115 Entering Wet Bulb 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC |
|---|---|---|---|---|---|---|---|
| 4000* | 75 | 170.1 | 121.7 | 192.6 | 99.2 | 217.3 | 72.5 |
| | 80 | 170.4 | 141.9 | 193.0 | 118.7 | 217.4 | 94.2 |
| | 85 | 171.4 | 162.2 | 193.3 | 139.1 | 217.7 | 114.8 |
| | 90 | 176.9 | 176.9 | 193.5 | 159.3 | 217.9 | 135.3 |
| 5200* | 75 | 182.7 | 140.0 | 206.0 | 109.6 | 231.1 | 77.1 |
| | 80 | 183.5 | 165.7 | 206.4 | 135.7 | 231.3 | 104.1 |
| | 85 | 187.4 | 187.4 | 206.7 | 161.4 | 231.6 | 130.3 |
| | 90 | 198.7 | 198.7 | 207.6 | 187.1 | 232.0 | 156.4 |
| 6400 | 75 | 191.3 | 156.4 | 214.9 | 119.7 | 240.2 | 80.8 |
| | 80 | 193.2 | 187.7 | 215.2 | 151.0 | 240.5 | 112.9 |
| | 85 | 202.8 | 202.8 | 215.9 | 181.8 | 240.9 | 144.4 |
| | 90 | 215.2 | 215.2 | 215.6 | 215.6 | 241.2 | 175.5 |
| 7200 | 75 | 195.8 | 166.7 | 219.1 | 131.7 | 244.7 | 83.2 |
| | 80 | 199.2 | 197.3 | 219.8 | 160.4 | 245.0 | 118.3 |
| | 85 | 211.2 | 211.2 | 220.8 | 194.7 | 245.5 | 153.3 |
| | 90 | 224.0 | 224.0 | 225.1 | 224.1 | 246.0 | 187.6 |
| 8000 | 75 | 199.6 | 176.7 | 223.0 | 131.9 | 248.4 | 85.0 |
| | 80 | 205.3 | 205.3 | 223.5 | 169.5 | 248.8 | 123.5 |
| | 85 | 218.6 | 218.6 | 225.1 | 207.3 | 249.2 | 161.7 |
| | 90 | 231.9 | 231.9 | 232.3 | 232.3 | 249.9 | 199.2 |
| 8800 | 75 | 202.9 | 186.3 | 226.0 | 137.6 | 251.5 | 86.6 |
| | 80 | 211.2 | 211.2 | 226.6 | 178.2 | 251.9 | 128.4 |
| | 85 | 224.9 | 224.9 | 228.9 | 219.4 | 252.4 | 169.7 |
| | 90 | 238.7 | 238.7 | 239.1 | 239.1 | 253.4 | 210.5 |
| 9600 | 75 | 205.9 | 195.6 | 228.4 | 143.0 | 254.0 | 88.2 |
| | 80 | 216.4 | 216.4 | 229.3 | 186.7 | 254.6 | 133.2 |
| | 85 | 230.5 | 230.5 | 230.7 | 230.7 | 255.1 | 177.4 |
| | 90 | 244.7 | 244.7 | 245.1 | 245.1 | 256.4 | 221.5 |

**Notes:**

1. All capacities shown are gross and have not considered indoor fan heat. To obtain **NET** cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBH = Total Gross Capacity
3. SHC = Sensible Heat Capacity

*For 4000 and 5200 CFM - Unit applications below 320 CFM/Ton are only applicable to TCD models (No Gas Heat). See below for restrictions:

- Electric heaters restricted on applications below 320 CFM/Ton.
- Dehumidification (Hot Gas Reheat) or TXV with Frostat and Crankcase Heaters are required on applications below 320 CFM/Ton.

**Table 25. Gross Cooling Capacities 25 Tons Three Phase Standard Refrigeration System High Efficiency T/YC*301C3,4,W**

| Air Flow CFM | Ent DB (°F) | Ambient Temperature 85 Entering Wet Bulb 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC | 95 Entering Wet Bulb 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC | 105 Entering Wet Bulb 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9000 | 75 | 277 | 243 | 306 | 187 | 316 | 117 | 258 | 234 | 295 | 178 | 314 | 115 | 238 | 224 | 276 | 169 | 305 | 110 |
| | 80 | 284 | 284 | 307 | 225 | 321 | 169 | 269 | 269 | 295 | 225 | 317 | 161 | 252 | 252 | 277 | 217 | 307 | 158 |
| | 85 | 300 | 300 | 309 | 269 | 325 | 198 | 289 | 289 | 298 | 271 | 320 | 202 | 273 | 273 | 280 | 266 | 308 | 201 |
| | 90 | 312 | 312 | 313 | 312 | 329 | 236 | 305 | 305 | 305 | 305 | 321 | 240 | 293 | 293 | 293 | 293 | 310 | 245 |
| 10000 | 75 | 284 | 258 | 310 | 188 | 319 | 121 | 264 | 249 | 299 | 185 | 316 | 117 | 244 | 239 | 282 | 178 | 308 | 112 |
| | 80 | 294 | 294 | 310 | 233 | 323 | 175 | 280 | 280 | 300 | 236 | 319 | 170 | 263 | 263 | 283 | 230 | 309 | 163 |
| | 85 | 307 | 307 | 313 | 280 | 327 | 202 | 298 | 298 | 303 | 286 | 322 | 207 | 284 | 284 | 287 | 284 | 312 | 208 |
| | 90 | 318 | 318 | 318 | 318 | 331 | 241 | 312 | 312 | 312 | 312 | 324 | 248 | 301 | 301 | 301 | 301 | 314 | 255 |
| 10500 | 75 | 286 | 265 | 311 | 190 | 320 | 122 | 267 | 256 | 300 | 189 | 316 | 118 | 247 | 246 | 284 | 182 | 309 | 113 |
| | 80 | 297 | 297 | 312 | 237 | 324 | 178 | 285 | 285 | 302 | 241 | 320 | 174 | 267 | 267 | 285 | 237 | 310 | 165 |
| | 85 | 310 | 310 | 315 | 285 | 328 | 204 | 302 | 302 | 305 | 293 | 323 | 210 | 289 | 289 | 289 | 289 | 313 | 212 |
| | 90 | 320 | 320 | 320 | 320 | 332 | 244 | 314 | 314 | 314 | 314 | 325 | 251 | 305 | 305 | 305 | 305 | 316 | 260 |
| 11000 | 75 | 289 | 272 | 312 | 192 | 321 | 123 | 270 | 264 | 302 | 192 | 317 | 119 | 249 | 249 | 286 | 186 | 309 | 114 |
| | 80 | 300 | 300 | 313 | 240 | 324 | 181 | 289 | 289 | 304 | 246 | 321 | 177 | 272 | 272 | 287 | 243 | 311 | 170 |
| | 85 | 312 | 312 | 316 | 289 | 329 | 205 | 305 | 305 | 307 | 299 | 324 | 212 | 293 | 293 | 293 | 293 | 314 | 215 |
| | 90 | 322 | 322 | 321 | 321 | 332 | 246 | 317 | 317 | 317 | 317 | 326 | 255 | 308 | 308 | 308 | 308 | 317 | 265 |

| Air Flow CFM | Ent DB (°F) | Ambient Temperature 115 Entering Wet Bulb 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC |
|---|---|---|---|---|---|---|---|
| 9000 | 75 | 218 | 214 | 253 | 163 | 292 | 104 |
| | 80 | 235 | 235 | 254 | 207 | 293 | 151 |
| | 85 | 256 | 256 | 259 | 256 | 293 | 198 |
| | 90 | 277 | 277 | 277 | 277 | 295 | 244 |
| 10000 | 75 | 224 | 224 | 259 | 168 | 295 | 106 |
| | 80 | 245 | 245 | 260 | 221 | 296 | 158 |
| | 85 | 267 | 267 | 267 | 267 | 297 | 208 |
| | 90 | 287 | 287 | 287 | 287 | 299 | 257 |
| 10500 | 75 | 228 | 228 | 261 | 172 | 296 | 107 |
| | 80 | 249 | 249 | 262 | 227 | 298 | 162 |
| | 85 | 272 | 272 | 272 | 272 | 299 | 213 |
| | 90 | 292 | 292 | 292 | 292 | 301 | 264 |
| 11000 | 75 | 231 | 231 | 263 | 176 | 297 | 108 |
| | 80 | 253 | 253 | 265 | 234 | 299 | 165 |
| | 85 | 276 | 276 | 276 | 276 | 300 | 217 |
| | 90 | 295 | 295 | 295 | 295 | 303 | 270 |

**Notes:**

1. All capacities shown are gross and have not considered indoor fan heat. To obtain **NET** cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBH = Total Gross Capacity
3. SHC = Sensible Heat Capacity
   *Indicates both downflow and horizontal units.

**Table 26. Gross Cooling Capacities 25 Tons Three Phase TXV Option High Efficiency T/Y*D301C3,4,W**

| Air Flow CFM | Ent DB (°F) | Ambient Temperature | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 85 | | | | | | 95 | | | | | | 105 | | | | | |
| | | Entering Wet Bulb | | | | | | | | | | | | | | | | | |
| | | 61 | | 67 | | 73 | | 61 | | 67 | | 73 | | 61 | | 67 | | 73 | |
| | | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC | MBH | SHC |
| 5000* | 75 | 241.0 | 176.5 | 269.7 | 142.7 | 300.9 | 107.2 | 229.7 | 169.7 | 257.6 | 135.9 | 287.8 | 100.8 | 217.8 | 162.6 | 244.9 | 129.0 | 274.0 | 94.1 |
| | 80 | 241.4 | 204.6 | 269.9 | 170.5 | 300.9 | 135.9 | 230.2 | 197.7 | 257.8 | 163.8 | 287.8 | 129.3 | 218.4 | 190.5 | 245.1 | 156.8 | 274.1 | 122.5 |
| | 85 | 243.0 | 233.0 | 270.1 | 198.3 | 301.1 | 163.7 | 229.2 | 229.2 | 258.1 | 191.5 | 288.1 | 157.0 | 221.3 | 216.5 | 245.4 | 184.5 | 274.4 | 150.1 |
| | 90 | 251.2 | 251.2 | 270.6 | 226.1 | 301.4 | 191.2 | 241.6 | 241.6 | 258.6 | 219.2 | 288.3 | 184.4 | 231.6 | 231.6 | 246.0 | 212.1 | 274.6 | 177.5 |
| 6500* | 75 | 256.8 | 201.4 | 286.5 | 157.9 | 318.8 | 113.1 | 244.6 | 194.3 | 273.3 | 150.9 | 304.2 | 106.4 | 231.8 | 186.9 | 259.5 | 143.8 | 289.2 | 99.5 |
| | 80 | 258.2 | 237.2 | 286.8 | 193.2 | 318.9 | 149.3 | 246.1 | 230.1 | 273.6 | 186.2 | 304.4 | 142.3 | 233.6 | 222.8 | 259.8 | 179.0 | 289.4 | 135.3 |
| | 85 | 264.6 | 264.6 | 287.3 | 228.5 | 319.2 | 184.3 | 254.2 | 254.2 | 274.1 | 221.4 | 304.7 | 177.3 | 243.2 | 243.2 | 260.4 | 214.1 | 289.7 | 170.2 |
| | 90 | 279.1 | 279.1 | 288.7 | 263.8 | 319.5 | 219.2 | 268.4 | 268.4 | 275.8 | 256.7 | 305.0 | 212.1 | 257.3 | 257.3 | 262.4 | 249.5 | 290.0 | 205.0 |
| 8000 | 75 | 267.9 | 224.2 | 297.7 | 171.5 | 330.7 | 118.0 | 254.9 | 216.9 | 283.7 | 164.4 | 315.3 | 111.1 | 241.5 | 209.3 | 269.2 | 157.1 | 299.2 | 104.0 |
| | 80 | 268.8 | 268.8 | 298.0 | 214.0 | 330.9 | 161.1 | 259.3 | 255.4 | 284.1 | 206.8 | 315.5 | 154.0 | 246.8 | 246.7 | 269.6 | 199.5 | 299.5 | 146.7 |
| | 85 | 284.5 | 284.5 | 299.2 | 256.4 | 331.2 | 203.2 | 273.2 | 273.2 | 285.4 | 249.2 | 315.9 | 196.1 | 261.3 | 261.3 | 271.0 | 241.8 | 299.8 | 188.8 |
| | 90 | 300.3 | 300.3 | 300.2 | 300.2 | 331.6 | 245.2 | 288.7 | 288.7 | 290.5 | 286.0 | 316.4 | 238.0 | 276.5 | 276.5 | 276.4 | 276.4 | 300.4 | 230.6 |
| 9000 | 75 | 273.6 | 238.6 | 303.4 | 180.1 | 336.6 | 120.9 | 260.4 | 231.2 | 289.0 | 172.8 | 320.7 | 114.0 | 246.7 | 223.6 | 273.9 | 170.7 | 304.2 | 106.8 |
| | 80 | 279.6 | 279.5 | 303.8 | 227.0 | 336.8 | 168.4 | 267.3 | 267.3 | 289.5 | 219.8 | 321.0 | 161.3 | 255.2 | 255.2 | 274.6 | 212.4 | 304.5 | 154.0 |
| | 85 | 295.1 | 295.1 | 305.6 | 274.3 | 337.2 | 215.2 | 283.4 | 283.4 | 291.5 | 267.1 | 321.4 | 208.1 | 271.0 | 271.0 | 276.9 | 259.7 | 304.9 | 200.7 |
| | 90 | 311.9 | 311.9 | 311.8 | 311.8 | 338.0 | 261.8 | 299.6 | 299.6 | 299.6 | 299.6 | 322.2 | 254.5 | 286.9 | 286.9 | 286.8 | 286.8 | 305.9 | 247.1 |
| 10000 | 75 | 278.6 | 252.6 | 308.1 | 188.2 | 341.5 | 123.5 | 265.2 | 245.2 | 293.3 | 180.9 | 325.3 | 116.5 | 251.3 | 237.6 | 278.0 | 173.5 | 308.4 | 109.2 |
| | 80 | 287.6 | 287.6 | 308.7 | 239.7 | 341.8 | 175.5 | 275.5 | 275.5 | 294.0 | 232.5 | 325.6 | 168.3 | 263.1 | 263.1 | 278.8 | 225.0 | 308.7 | 160.9 |
| | 85 | 304.6 | 304.6 | 311.3 | 291.9 | 342.1 | 226.8 | 292.3 | 292.3 | 297.0 | 284.7 | 325.9 | 219.5 | 279.4 | 279.4 | 279.3 | 279.3 | 309.1 | 212.1 |
| | 90 | 322.2 | 322.2 | 322.1 | 322.1 | 343.3 | 277.9 | 309.3 | 309.3 | 309.3 | 309.3 | 327.2 | 270.5 | 295.9 | 295.9 | 295.9 | 295.9 | 310.6 | 263.1 |
| 11000 | 75 | 283.1 | 266.2 | 312.0 | 196.0 | 345.5 | 125.9 | 269.5 | 258.8 | 296.9 | 188.7 | 329.1 | 118.9 | 253.1 | 253.1 | 281.2 | 181.2 | 311.8 | 111.5 |
| | 80 | 295.1 | 295.1 | 312.9 | 252.1 | 345.8 | 182.3 | 282.8 | 282.8 | 297.9 | 244.7 | 329.4 | 175.0 | 269.9 | 269.9 | 282.4 | 237.2 | 312.2 | 167.7 |
| | 85 | 312.9 | 312.9 | 312.8 | 312.8 | 346.2 | 237.9 | 300.0 | 300.0 | 299.9 | 299.9 | 329.9 | 230.6 | 286.7 | 286.7 | 288.1 | 285.2 | 312.8 | 223.1 |
| | 90 | 331.2 | 331.2 | 331.1 | 331.1 | 347.8 | 293.5 | 317.8 | 317.8 | 317.8 | 317.8 | 331.6 | 286.2 | 304.0 | 304.0 | 303.8 | 303.8 | 314.7 | 278.6 |
| 12000 | 75 | 283.8 | 283.8 | 315.3 | 203.6 | 348.9 | 128.2 | 271.5 | 271.5 | 299.9 | 196.2 | 332.2 | 121.1 | 259.9 | 256.8 | 284.1 | 188.6 | 314.7 | 113.8 |
| | 80 | 301.8 | 301.8 | 316.6 | 264.1 | 349.2 | 188.9 | 289.0 | 289.0 | 301.2 | 256.6 | 332.6 | 181.7 | 275.9 | 275.9 | 285.7 | 249.1 | 315.2 | 174.3 |
| | 85 | 320.3 | 320.3 | 322.4 | 316.7 | 349.8 | 248.8 | 307.0 | 307.0 | 308.0 | 306.9 | 333.2 | 241.5 | 293.2 | 293.2 | 293.1 | 293.1 | 315.8 | 233.9 |
| | 90 | 339.1 | 339.1 | 339.0 | 339.0 | 351.7 | 308.8 | 325.4 | 325.4 | 325.3 | 325.3 | 335.6 | 301.5 | 310.9 | 310.9 | 310.9 | 310.9 | 318.5 | 294.0 |

**continued on next page**

**Table 26. (continued)Gross Cooling Capacities 25 Tons Three Phase TXV Option High Efficiency T/Y*D301C3,4,W**

| Air Flow CFM | Ent DB (°F) | Ambient Temperature 115 Entering Wet Bulb 61 MBH | 61 SHC | 67 MBH | 67 SHC | 73 MBH | 73 SHC |
|---|---|---|---|---|---|---|---|
| 5000* | 75 | 205.5 | 155.3 | 231.6 | 122.0 | 259.8 | 87.3 |
| | 80 | 206.2 | 183.2 | 231.9 | 149.6 | 259.8 | 115.6 |
| | 85 | 209.9 | 208.3 | 232.2 | 177.3 | 260.1 | 143.1 |
| | 90 | 221.2 | 221.2 | 233.0 | 204.8 | 260.4 | 170.4 |
| 6500* | 75 | 218.4 | 179.4 | 245.1 | 136.5 | 273.6 | 92.5 |
| | 80 | 220.7 | 215.4 | 245.4 | 171.6 | 273.9 | 128.1 |
| | 85 | 231.7 | 231.7 | 246.2 | 206.6 | 274.1 | 162.9 |
| | 90 | 245.6 | 245.6 | 245.5 | 245.5 | 274.5 | 197.7 |
| 8000 | 75 | 227.5 | 201.6 | 254.0 | 149.6 | 282.7 | 96.8 |
| | 80 | 234.0 | 234.0 | 254.5 | 191.9 | 283.0 | 139.4 |
| | 85 | 248.9 | 248.9 | 256.2 | 234.3 | 283.3 | 181.4 |
| | 90 | 263.8 | 263.8 | 263.7 | 263.7 | 284.0 | 223.1 |
| 9000 | 75 | 232.5 | 215.9 | 258.3 | 163.2 | 287.1 | 99.6 |
| | 80 | 242.6 | 242.6 | 259.1 | 204.8 | 287.5 | 146.5 |
| | 85 | 258.0 | 258.0 | 261.9 | 252.2 | 287.8 | 193.1 |
| | 90 | 273.5 | 273.5 | 273.5 | 273.5 | 288.9 | 239.4 |
| 10000 | 75 | 234.1 | 234.1 | 262.1 | 165.9 | 290.8 | 101.7 |
| | 80 | 250.0 | 250.0 | 263.1 | 217.3 | 291.2 | 153.4 |
| | 85 | 266.0 | 266.0 | 267.7 | 262.9 | 291.7 | 204.4 |
| | 90 | 282.0 | 282.0 | 282.0 | 282.0 | 293.3 | 255.3 |
| 11000 | 75 | 241.4 | 237.4 | 265.1 | 173.5 | 293.9 | 104.0 |
| | 80 | 256.4 | 256.4 | 266.5 | 229.4 | 294.3 | 160.1 |
| | 85 | 272.8 | 272.8 | 272.7 | 272.7 | 295.0 | 215.4 |
| | 90 | 289.3 | 289.3 | 289.3 | 289.3 | 297.3 | 271.0 |
| 12000 | 75 | 245.2 | 245.2 | 267.7 | 180.9 | 296.5 | 106.2 |
| | 80 | 262.0 | 262.0 | 269.5 | 241.3 | 297.0 | 166.6 |
| | 85 | 278.8 | 278.8 | 278.8 | 278.8 | 297.8 | 226.2 |
| | 90 | 295.9 | 295.9 | 295.9 | 295.9 | 301.0 | 286.4 |

**Notes:**

1. All capacities shown are gross and have not considered indoor fan heat. To obtain **NET** cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBH = Total Gross Capacity
3. SHC = Sensible Heat Capacity

*For 5000 and 6500 CFM - Unit applications below 320 CFM/Ton are only applicable to TCD models (No Gas Heat). See below for restrictions:

- Electric heaters restricted on applications below 320 CFM/Ton.
- Dehumidification (Hot Gas Reheat) or TXV with Frostat and Crankcase Heaters are required on applications below 320 CFM/Ton.

## Table 27. Evaporator Fan Performance 12½ Tons TC*150D Downflow or Horizontal

| External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 & Field Supplied Low Static Drive[a]** | | | | | | | | | | **3-HP Standard Motor & Sheaves** | | | | | | | | | |
| 4000 | — | — | — | — | — | — | 565 | 0.93 | 599 | 1.03 | 632 | 1.15 | 663 | 1.27 | 695 | 1.38 | 727 | 1.48 | 757 | 1.59 |
| 4500 | — | — | — | — | 571 | 1.10 | 603 | 1.21 | 634 | 1.31 | 665 | 1.43 | 694 | 1.56 | 723 | 1.69 | 750 | 1.82 | 778 | 1.94 |
| 5000 | 547 | 1.18 | 581 | 1.30 | 613 | 1.42 | 643 | 1.54 | 672 | 1.67 | 700 | 1.78 | 727 | 1.91 | 755 | 2.05 | 781 | 2.19 | 806 | 2.34 |
| 5500 | 595 | 1.55 | 627 | 1.68 | 656 | 1.81 | 685 | 1.94 | 711 | 2.08 | 737 | 2.21 | 763 | 2.34 | 788 | 2.47 | 813 | 2.62 | 837 | 2.77 |
| 6000 | 643 | 1.99 | 673 | 2.12 | 701 | 2.26 | 727 | 2.41 | 752 | 2.56 | 777 | 2.71 | 801 | 2.85 | 825 | 2.99 | 848 | 3.13 | 871 | 3.27 |

**Continued**

| External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | | 1.70 | | 1.80 | | 1.90 | | 2.00 | |
| CFM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | **3 HP Standard Motor & Sheaves** | | | | | | **3 HP Standard Motor & High Static Drive Accessory** | | | | | | | | | | | | | |
| 4000 | 786 | 1.70 | 813 | 1.81 | 841 | 1.91 | 867 | 2.02 | 893 | 2.12 | 919 | 2.22 | 943 | 2.32 | 966 | 2.41 | 989 | 2.50 | 1011 | 2.60 |
| 4500 | 806 | 2.06 | 834 | 2.19 | 861 | 2.31 | 886 | 2.43 | 911 | 2.56 | 935 | 2.67 | 960 | 2.79 | 983 | 2.90 | 1005 | 3.02 | 1028 | 3.13 |
| 5000 | 830 | 2.48 | 856 | 2.62 | 882 | 2.76 | 907 | 2.89 | 931 | 3.02 | 955 | 3.16 | 977 | 3.30 | 1001 | 3.44 | 1022 | 3.56 | 1045 | 3.70 |
| 5500 | 861 | 2.93 | 884 | 3.10 | 906 | 3.25 | 930 | 3.41 | 953 | 3.56 | 976 | 3.70 | 999 | 3.86 | 1021 | 4.00 | 1043 | 4.15 | 1064 | 4.31 |
| 6000 | 894 | 3.43 | 916 | 3.61 | 938 | 3.79 | 959 | 3.97 | 980 | 4.15 | 1000 | 4.31 | 1019 | 4.46 | 1040 | 4.62 | 1061 | 4.78 | 1082 | 4.95 |
| | | | **5-HP Oversized Motor & Sheaves** | | | | | | | | | **5-HP Oversized Motor & Field Supplied Drive[b]** | | | | | | | | |

**Notes:**
1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
3. Fan motor heat (MBH) = 3.15 x Fan BHP.
4. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories. 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.

(a) Field Supplied Fan Sheave BK90 required. Field Supplied Belt may be necessary.
(b) 5-HP Oversized Motor with Field Supplied Motor Sheave IVL40 required. Field Supplied Belt may be necessary.
*For 380V/60 Hz units, the oversized motor is used as the standard motor. Refer to "Motor & Sheave/Fan Speed" tables to determine operating range.

### Table 28. Evaporator Fan Performance 12½ Tons with Gas Heat YC*150D Downflow or Horizontal

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 & Field Supplied Low Static Drive[a]** | | | | | | | | | | **3-HP Standard Motor & Drive** | | | | | | | | | |
| 4000 | — | — | — | — | — | — | 581 | 0.97 | 614 | 1.08 | 646 | 1.20 | 677 | 1.31 | 707 | 1.41 | 738 | 1.52 | 768 | 1.63 |
| 4500 | — | — | — | — | 588 | 1.15 | 622 | 1.27 | 652 | 1.38 | 682 | 1.50 | 711 | 1.63 | 738 | 1.76 | 766 | 1.88 | 793 | 2.00 |
| 5000 | 571 | 1.26 | 602 | 1.37 | 631 | 1.46 | 663 | 1.63 | 693 | 1.75 | 720 | 1.87 | 747 | 2.00 | 773 | 2.15 | 798 | 2.29 | 823 | 2.43 |
| 5500 | 621 | 1.65 | 650 | 1.79 | 678 | 1.87 | 704 | 2.01 | 734 | 2.19 | 760 | 2.33 | 786 | 2.45 | 810 | 2.59 | 834 | 2.74 | 858 | 2.91 |
| 6000 | 674 | 2.10 | 699 | 2.28 | 727 | 2.37 | 749 | 2.48 | 775 | 2.66 | 802 | 2.86 | 826 | 3.00 | 849 | 3.13 | 872 | 3.28 | 894 | 3.44 |

**Continued**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | | 1.70 | | 1.80 | | 1.90 | | 2.00 | |
| CFM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | **3-HP Standard Motor & Drive** | | | | | | **3-HP Standard Motor & High Static Drive Accessory[b]** | | | | | | | | | | | | | |
| 4000 | 799 | 1.75 | 829 | 1.87 | 856 | 1.99 | 884 | 2.11 | 911 | 2.24 | 937 | 2.35 | 962 | 2.47 | 987 | 2.59 | 1010 | 2.70 | 1034 | 2.82 |
| 4500 | 820 | 2.12 | 847 | 2.24 | 873 | 2.36 | 900 | 2.50 | 927 | 2.64 | 952 | 2.77 | 978 | 2.91 | 1003 | 3.05 | 1025 | 3.18 | 1049 | 3.32 |
| 5000 | 847 | 2.56 | 873 | 2.70 | 897 | 2.83 | 921 | 2.96 | 945 | 3.09 | 970 | 3.24 | 993 | 3.38 | 1017 | 3.53 | 1041 | 3.69 | 1064 | 3.85 |
| 5500 | 881 | 3.06 | 903 | 3.22 | 926 | 3.37 | 948 | 3.52 | 971 | 3.67 | 993 | 3.80 | 1015 | 3.95 | 1036 | 4.09 | 1058 | 4.25 | 1081 | 4.41 |
| 6000 | 916 | 3.61 | 938 | 3.78 | 959 | 3.96 | 980 | 4.13 | 1001 | 4.31 | 1021 | 4.46 | 1042 | 4.62 | 1062 | 4.78 | 1082 | 4.93 | 1103 | 5.09 |
| | **5-HP Oversized Motor & Drive[c]** | | | | | | | | | | **5-HP Oversized Motor & Field Supplied High Static Drive[d]** | | | | | | | | | |

**Notes:**
1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
3. Fan motor heat (MBH) = 3.15 x Fan BHP.
4. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
5. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
6. Motor Heat (MBH) = 3.000 x Fan BHP+.5000
7. 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.

(a) Field Supplied Fan Sheave BK90 required. Field Supplied Belt may be necessary.
(b) 3-HP Standard Motor with Field Supplied Motor Sheave 1VP44 required. Field Supplied Belt may be necessary.
(c) 5-HP Oversize Motor with Field Supplied Motor Sheave 1VP50 required. Field Supplied Belt may be necessary.
(d) 5-HP Oversize Motor with Field Supplied Motor Sheave 1VP50 required. Field Supplied Belt may be necessary.
*For 380V/60 Hz units, the oversized motor is used as the standard motor. Refer to "Motor & Sheave/Fan Speed" tables to determine operating range.

## Table 29. Evaporator Fan Performance 15 Tons TC*180B Downflow or Horizontal

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 & Field Supplied Low Static Drive[a]** | | | | | | | | | | **3-HP Standard Motor & Sheaves** | | | | | | | | | |
| 4800 | — | — | 563 | 1.17 | 596 | 1.29 | 626 | 1.41 | 656 | 1.52 | 685 | 1.63 | 714 | 1.76 | 742 | 1.90 | 768 | 2.04 | 794 | 2.18 |
| 5400 | 585 | 1.47 | 618 | 1.60 | 648 | 1.72 | 676 | 1.86 | 703 | 1.99 | 729 | 2.12 | 756 | 2.25 | 782 | 2.38 | 807 | 2.52 | 832 | 2.68 |
| 6000 | 643 | 1.99 | 673 | 2.12 | 701 | 2.26 | 727 | 2.41 | 752 | 2.56 | 777 | 2.71 | 801 | 2.85 | 825 | 2.99 | 848 | 3.13 | 871 | 3.27 |
| 6600 | 701 | 2.61 | 729 | 2.76 | 755 | 2.91 | 780 | 3.07 | 804 | 3.23 | 827 | 3.39 | 849 | 3.56 | 871 | 3.72 | 892 | 3.88 | 914 | 4.03 |
| 7200 | 760 | 3.35 | 786 | 3.52 | 810 | 3.69 | 834 | 3.85 | 856 | 4.02 | 878 | 4.20 | 899 | 4.38 | 919 | 4.56 | 939 | 4.74 | 959 | 4.91 |
| | **5-HP Oversized Motor & Field Supplied Fan Sheave[b]** | | | | | | | | | | | | **5-HP Oversized Motor & Sheaves** | | | | | | | |

**Continued**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | | 1.70 | | 1.80 | | 1.90 | | 2.00 | |
| CFM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | **3-HP Standard Motor & Sheaves** | | | | | | | | | | **3-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | |
| 4800 | 819 | 2.30 | 844 | 2.43 | 871 | 2.57 | 898 | 2.70 | 923 | 2.83 | 946 | 2.96 | 970 | 3.09 | 994 | 3.23 | 1018 | 3.39 | 1041 | 3.54 |
| 5400 | 855 | 2.84 | 878 | 3.00 | 901 | 3.15 | 923 | 3.29 | 945 | 3.43 | 969 | 3.58 | 993 | 3.73 | 1016 | 3.88 | 1038 | 4.03 | 1060 | 4.17 |
| 6000 | 894 | 3.43 | 916 | 3.61 | 938 | 3.79 | 959 | 3.97 | 980 | 4.15 | 1000 | 4.31 | 1019 | 4.46 | 1040 | 4.62 | 1061 | 4.78 | 1082 | 4.95 |
| 6600 | 935 | 4.18 | 956 | 4.34 | 977 | 4.51 | 997 | 4.70 | 1018 | 4.90 | 1037 | 5.10 | 1056 | 5.30 | 1075 | 5.49 | 1093 | 5.67 | — | — |
| 7200 | 979 | 5.08 | 999 | 5.25 | 1018 | 5.41 | 1038 | 5.58 | 1057 | 5.77 | — | — | — | — | — | — | — | — | — | — |
| | **5-HP Oversized Motor & Sheaves** | | | | | | | | | | **5-HP Oversized Motor & Field Supplied Drive[c]** | | | | | | | | | |

**Notes:**
1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & High Static Drive Accessory Fan Speed (RPM), reference Table 57, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.

(a) Field Supplied Fan Sheave BK105 required. Field Supplied Belt may be necessary.
(b) 5-HP Oversized Motor with Field Supplied Fan Sheave BK160 required. Field Supplied Belt may be necessary.
(c) 5-HP Oversized Motor with Field Supplied Motor Sheave IVP50 required. Field Supplied Belt may be necessary.
*For 380V/60 Hz units, the oversized motor is used as the standard motor. Refer to "Motor & Sheave/Fan Speed" tables to determine operating range.

### Table 30. Evaporator Fan Performance 15 Tons with Gas Heat YC*180B Downflow or Horizontal

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 & Field Supplied Low Static Drive[a]** | | | | | | | | | | **3-HP Standard Motor & Sheaves** | | | | | | | | | |
| 4800 | — | — | 584 | 1.22 | 613 | 1.33 | 647 | 1.49 | 676 | 1.59 | 704 | 1.71 | 732 | 1.84 | 759 | 1.98 | 485 | 2.13 | 811 | 2.26 |
| 5200 | 591 | 1.41 | 623 | 1.53 | 649 | 1.61 | 679 | 1.78 | 709 | 1.93 | 736 | 2.04 | 762 | 2.17 | 788 | 2.31 | 831 | 2.46 | 837 | 2.62 |
| 5600 | 633 | 1.76 | 661 | 1.89 | 688 | 1.96 | 713 | 2.09 | 742 | 2.29 | 769 | 2.43 | 793 | 2.55 | 817 | 2.69 | 542 | 2.84 | 865 | 3.00 |
| 6000 | 674 | 2.10 | 699 | 2.28 | 727 | 2.37 | 749 | 2.48 | 775 | 2.66 | 802 | 2.86 | 826 | 3.00 | 849 | 3.13 | 872 | 3.28 | 894 | 3.44 |
| 6400 | 716 | 2.52 | 739 | 2.73 | 766 | 2.85 | 788 | 2.94 | 809 | 3.08 | 835 | 3.30 | 860 | 3.50 | 882 | 3.65 | 903 | 3.79 | 925 | 3.94 |
| 6800 | 758 | 3.00 | 779 | 3.22 | 804 | 3.38 | 827 | 3.47 | 847 | 3.58 | 868 | 3.77 | 892 | 4.01 | 915 | 4.21 | 936 | 4.37 | 957 | 4.52 |
| 7200 | 800 | 3.54 | 820 | 3.76 | 842 | 3.96 | 866 | 4.07 | 885 | 4.17 | 904 | 4.32 | 925 | 4.54 | 948 | 4.81 | 970 | 5.01 | 990 | 5.17 |
| | **5-HP Oversized Motor & Drive** | | | | | | | | | | | | | | | | | | | |

**Continued**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | | 1.70 | | 1.80 | | 1.90 | | 2.00 | |
| CFM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | **3-HP Standard Motor & Drive** | | | | | | **3-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | | | | | |
| 4800 | 836 | 2.38 | 862 | 2.51 | 887 | 2.64 | 912 | 2.77 | 937 | 2.90 | 962 | 3.04 | 987 | 3.19 | 1011 | 3.34 | 1034 | 3.49 | 1057 | 3.65 |
| 5200 | 861 | 2.76 | 885 | 2.90 | 908 | 3.04 | 932 | 3.18 | 955 | 3.31 | 978 | 3.46 | 1002 | 3.60 | 1025 | 3.75 | 1047 | 3.90 | 1070 | 4.06 |
| 5600 | 888 | 3.17 | 910 | 3.33 | 932 | 3.49 | 954 | 3.64 | 976 | 3.79 | 998 | 3.93 | 1020 | 4.08 | 1042 | 4.23 | 1063 | 4.38 | 1085 | 4.54 |
| 6000 | 916 | 3.61 | 938 | 3.78 | 959 | 3.96 | 980 | 4.13 | 1001 | 4.31 | 1021 | 4.46 | 1042 | 4.62 | 1062 | 4.78 | 1082 | 4.93 | 1103 | 5.09 |
| 6400 | 946 | 4.10 | 967 | 4.28 | 987 | 4.47 | 1007 | 4.66 | 1027 | 4.85 | 1047 | 5.03 | 1066 | 5.21 | 1085 | 5.38 | 1104 | 5.55 | — | — |
| 6800 | 977 | 4.67 | 997 | 4.84 | 1017 | 5.03 | 1036 | 5.22 | 1055 | 5.42 | 1074 | 5.62 | — | — | — | — | — | — | — | — |
| 7200 | 1009 | 5.33 | 1028 | 5.49 | 1047 | 5.67 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | **5-HP Oversized Motor & Drive** | | | | | | **5-HP Oversized Motor & Field Supplied High Static Drive[b]** | | | | | | | | | | | | | |

**Notes:**
1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & High Static Drive Accessory Fan Speed (RPM), reference Table 57, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.

(a) Field Supplied Fan Sheave BK105 required. Field Supplied Belt may be necessary.
(b) 5-HP Oversize Motor with Field Supplied Motor Sheave 1VP50 required. Field Supplied Belt may be necessary.
*For 380V/60 Hz units, the oversized motor is used as the standard motor. Refer to "Motor & Sheave/Fan Speed" tables to determine operating range.

## Table 31. Evaporator Fan Performance 17½ Tons TC*210C Downflow or Horizontal

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 |
| | **5-HP Standard Motor with Low Static Drive Accessory** | | | | | | | | | | | | | | **5-HP Standard Motor & Sheaves** | | | | | |
| 5600 | — | — | — | — | 735 | 2.34 | 759 | 2.46 | 783 | 2.60 | 807 | 2.74 | 830 | 2.89 | 852 | 3.03 | 875 | 3.18 | 898 | 3.33 |
| 6300 | 765 | 2.96 | 788 | 3.10 | 810 | 3.23 | 831 | 3.36 | 852 | 3.50 | 874 | 3.65 | 895 | 3.81 | 917 | 3.97 | 937 | 4.13 | 956 | 4.29 |
| 7000 | 845 | 4.02 | 866 | 4.18 | 886 | 4.33 | 906 | 4.48 | 925 | 4.62 | 944 | 4.77 | 963 | 4.93 | 982 | 5.10 | 1002 | 5.29 | 1021 | 5.47 |
| 7700 | 925 | 5.32 | 944 | 5.49 | 963 | 5.66 | 982 | 5.82 | 999 | 5.98 | 1016 | 6.14 | 1033 | 6.30 | 1050 | 6.47 | 1069 | 6.66 | 1086 | 6.86 |
| 8400 | 1006 | 6.87 | 1024 | 7.06 | 1041 | 7.24 | 1058 | 7.42 | 1075 | 7.60 | 1091 | 7.78 | 1107 | 7.95 | 1122 | 8.13 | 1138 | 8.31 | 1154 | 8.50 |
| | **7.5-HP Oversized Motor & Sheaves** | | | | | | | | | | | | | | | | | | | |

**Continued**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 & Sheaves** | | | | | | | | | | | | | | | | | | | |
| 5600 | 923 | 3.50 | 946 | 3.68 | 968 | 3.85 | 989 | 4.03 | 1011 | 4.21 | 1033 | 4.39 | 1056 | 4.58 | 1078 | 4.77 | 1099 | 4.96 | 1122 | 5.18 |
| 6300 | 976 | 4.46 | 997 | 4.63 | 1019 | 4.82 | 1040 | 5.00 | 1060 | 5.19 | 1079 | 5.39 | 1100 | 5.60 | 1118 | 5.79 | 1138 | 6.00 | 1157 | 6.20 |
| 7000 | 1039 | 5.65 | 1057 | 5.82 | 1074 | 6.00 | 1092 | 6.19 | 1111 | 6.39 | 1130 | 6.59 | 1150 | 6.80 | 1168 | 7.01 | 1186 | 7.22 | 1205 | 7.46 |
| 7700 | 1104 | 7.06 | 1122 | 7.26 | 1138 | 7.46 | 1154 | 7.66 | 1170 | 7.84 | 1186 | 8.05 | 1202 | 8.25 | 1220 | 8.47 | — | — | — | — |
| 8400 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | **7.5-HP Oversized Motor Sheaves** | | | | | | | | | | | | | | | | | | | |

**Notes:**
1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & Low Static Drive Accessory Fan Speed (RPM), reference Table 56, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.

*For 380V/60 Hz units, the oversized motor is used as the standard motor. Refer to "Motor & Sheave/Fan Speed" tables to determine operating range.

### Table 32. Evaporator Fan Performance 17½ Tons with Gas Heat YC*210C Downflow or Horizontal

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 |
| | **5-HP Standard Motor & Low Static Drive Accessory** | | | | | | | | | | | | | | **5-HP Standard Motor & Drive** | | | | | |
| 5600 | — | — | 720 | 2.27 | 744 | 2.39 | 767 | 2.51 | 791 | 2.65 | 815 | 2.79 | 838 | 2.93 | 860 | 3.08 | 883 | 3.23 | 906 | 3.39 |
| 6300 | 776 | 3.02 | 798 | 3.16 | 820 | 3.29 | 841 | 3.42 | 862 | 3.56 | 883 | 3.72 | 905 | 3.88 | 926 | 4.04 | 946 | 4.20 | 965 | 4.36 |
| 7000 | 857 | 4.11 | 878 | 4.26 | 898 | 4.41 | 917 | 4.56 | 935 | 4.70 | 954 | 4.86 | 974 | 5.03 | 993 | 5.21 | 1013 | 5.39 | 1031 | 5.57 |
| 7700 | 939 | 5.44 | 958 | 5.60 | 976 | 5.77 | 994 | 5.93 | 1011 | 6.09 | 1028 | 6.25 | 1045 | 6.42 | 1062 | 6.60 | 1080 | 6.79 | 1098 | 6.99 |
| 8400 | 1021 | 7.03 | 1038 | 7.21 | 1055 | 7.39 | 1072 | 7.57 | 1088 | 7.74 | 1104 | 7.92 | 1119 | 8.09 | 1135 | 8.27 | 1151 | 8.46 | — | — |
| | **7.5-HP Oversized Motor & Drive** | | | | | | | | | | | | | | | | | | | |

**Continued**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 & Drive** | | | | | | | | | | | | | | | | | | | |
| 5600 | 929 | 3.55 | 951 | 3.72 | 974 | 3.90 | 996 | 4.08 | 1018 | 4.27 | 1039 | 4.45 | 1060 | 4.62 | 1082 | 4.81 | 1105 | 5.01 | 1127 | 5.22 |
| 6300 | 984 | 4.53 | 1005 | 4.70 | 1026 | 4.88 | 1047 | 5.07 | 1067 | 5.27 | 1087 | 5.46 | 1106 | 5.66 | 1125 | 5.86 | 1145 | 6.07 | 1164 | 6.27 |
| 7000 | 1049 | 5.74 | 1066 | 5.92 | 1084 | 6.11 | 1102 | 6.30 | 1121 | 6.49 | 1139 | 6.69 | 1159 | 6.90 | 1176 | 7.11 | 1194 | 7.33 | 1212 | 7.55 |
| 7700 | 1116 | 7.20 | 1132 | 7.39 | 1149 | 7.59 | 1164 | 7.78 | 1180 | 7.98 | 1197 | 8.18 | 1213 | 8.39 | 1230 | 8.60 | — | — | — | — |
| 8400 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | **7.5-HP Oversized Motor & Drive** | | | | | | | | | | | | | | | | | | | |

**Notes:**

1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85
2. For Standard Motor & Low Static Drive Accessory Fan Speed (RPM), reference Table 56, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.

*For 380V/60 Hz units, the oversized motor is used as the standard motor. Refer to "Motor & Sheave/Fan Speed" tables to determine operating range.

### Table 33. Evaporator Fan Performance 20 Tons TC*240B Downflow or Horizontal

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 |
| | **5-HP Standard Motor with Low Static Drive[a]** | | | | | | | | | | **5-HP Standard Motor & Sheaves** | | | | | | | | | |
| 6400 | — | — | 514 | 1.69 | 546 | 1.88 | 574 | 2.05 | 599 | 2.21 | 624 | 2.37 | 648 | 2.54 | 671 | 2.71 | 695 | 2.90 | 720 | 3.11 |
| 7200 | 527 | 2.08 | 562 | 2.29 | 592 | 2.50 | 619 | 2.71 | 644 | 2.91 | 667 | 3.09 | 689 | 3.26 | 711 | 3.45 | 732 | 3.64 | 752 | 3.83 |
| 8000 | 578 | 2.79 | 610 | 3.03 | 639 | 3.26 | 666 | 3.50 | 690 | 3.73 | 712 | 3.96 | 733 | 4.16 | 753 | 4.35 | 773 | 4.55 | 792 | 4.75 |
| 8800 | 629 | 3.65 | 659 | 3.93 | 687 | 4.18 | 712 | 4.43 | 736 | 4.69 | 758 | 4.96 | 778 | 5.20 | 797 | 5.43 | 816 | 5.65 | 834 | 5.86 |
| 9600 | 681 | 4.67 | 709 | 4.99 | 735 | 5.27 | 759 | 5.54 | 782 | 5.82 | 804 | 6.11 | 824 | 6.39 | 843 | 6.67 | 861 | 6.92 | 878 | 7.16 |
| | | | | | | **7.5-HP Standard Motor & Sheave[b]** | | | | | | | **7.5-HP Oversized Motor & Sheaves** | | | | | | | |

**Continued**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 & Sheaves** | | | | | | | | | | **5-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | |
| 6400 | 744 | 3.32 | 768 | 3.52 | 790 | 3.72 | 811 | 3.91 | 833 | 4.13 | 855 | 4.36 | 877 | 4.59 | 897 | 4.82 | 917 | 5.05 | 936 | 5.29 |
| 7200 | 773 | 4.04 | 795 | 4.27 | 817 | 4.50 | 839 | 4.74 | 860 | 4.96 | 880 | 5.19 | 898 | 5.41 | 917 | 5.64 | 937 | 5.88 | 957 | 6.14 |
| 8000 | 811 | 4.96 | 830 | 5.18 | 848 | 5.40 | 867 | 5.64 | 887 | 5.90 | 907 | 6.16 | 927 | 6.42 | 946 | 6.68 | 964 | 6.93 | 982 | 7.18 |
| 8800 | 852 | 6.08 | 869 | 6.30 | 887 | 6.53 | 904 | 6.77 | 921 | 7.01 | 938 | 7.26 | 955 | 7.52 | 973 | 7.81 | 991 | 8.09 | — | — |
| 9600 | 895 | 7.40 | 911 | 7.63 | 928 | 7.86 | 944 | 8.11 | 960 | 8.36 | 976 | 8.61 | — | — | — | — | — | — | — | — |
| | | | | | | | **7.5-HP Oversized Motor & Sheaves** | | | | | | | | | | | | |

**Notes:**
1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & Low Static Drive Accessory Fan Speed (RPM), reference Table 56, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.

(a) Field Supplied Fan Sheave BK190 required. Field Supplied Belt may be necessary.
(b) 7.5 HP Standard Motor with Field Supplied Motor Sheave IVP50 required. Field Supplied Belt may be necessary.
*For 380V/60 Hz units, the oversized motor is used as the standard motor. Refer to "Motor & Sheave/Fan Speed" tables to determine operating range.

### Table 34. Evaporator Fan Performance 20 Tons with Gas Heat YC*240B Downflow or Horizontal

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 |
| | **5-HP Standard Motor & Field Supplied Low Static Drive[a]** | | | | | | | | | | **5-HP Standard Motor & Drive** | | | | | | | | | |
| 6400 | 511 | 1.56 | 538 | 1.72 | 564 | 1.99 | 590 | 2.16 | 615 | 2.31 | 639 | 2.47 | 663 | 2.65 | 688 | 2.84 | 711 | 3.04 | 735 | 3.23 |
| 7200 | 555 | 2.25 | 587 | 2.46 | 614 | 2.67 | 640 | 2.88 | 663 | 3.06 | 685 | 3.23 | 706 | 3.41 | 728 | 3.60 | 749 | 3.80 | 771 | 4.01 |
| 8000 | 609 | 3.03 | 639 | 3.26 | 665 | 3.50 | 690 | 3.73 | 712 | 3.96 | 733 | 4.16 | 753 | 4.35 | 772 | 4.55 | 792 | 4.75 | 811 | 4.96 |
| 8800 | 664 | 3.98 | 692 | 4.23 | 717 | 4.49 | 740 | 4.75 | 762 | 5.01 | 782 | 5.25 | 801 | 5.48 | 820 | 5.69 | 838 | 5.90 | 855 | 6.12 |
| 9600 | 719 | 5.11 | 745 | 5.38 | 770 | 5.66 | 792 | 5.94 | 813 | 6.23 | 832 | 6.51 | 851 | 6.78 | 869 | 7.03 | 886 | 7.27 | 902 | 7.50 |
| | | | | | | | **7.5-HP Oversized Motor & Sheave[b]** | | | | | | | | **7.5-HP Oversized Motor & Drive** | | | | | |

**Continued**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 & Drive** | | | | | | | | **5-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | | | |
| 6400 | 758 | 3.4 | 781 | 3.64 | 804 | 3.85 | 827 | 4.07 | 848 | 4.29 | 869 | 4.51 | 890 | 4.73 | 910 | 4.97 | 929 | 5.21 | 949 | 5.45 |
| 7200 | 792 | 4.24 | 813 | 4.46 | 834 | 4.68 | 854 | 4.90 | 875 | 5.13 | 895 | 5.37 | 916 | 5.62 | 936 | 5.86 | 955 | 6.11 | 973 | 6.35 |
| 8000 | 830 | 5.18 | 850 | 5.42 | 869 | 5.66 | 888 | 5.91 | 907 | 6.16 | 925 | 6.40 | 944 | 6.65 | 962 | 6.90 | 981 | 7.16 | 1000 | 7.44 |
| 8800 | 873 | 6.34 | 890 | 6.58 | 908 | 6.82 | 925 | 7.08 | 943 | 7.34 | 961 | 7.61 | 978 | 7.88 | 995 | 8.16 | — | — | — | — |
| 9600 | 919 | 7.73 | 935 | 7.97 | 951 | 8.21 | 967 | 8.46 | — | — | — | — | — | — | — | — | — | — | — | — |
| | | | | | | | **7.5-HP Oversized Motor & Drive** | | | | | | | | | | | | | |

**Notes:**
1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & Low Static Drive Accessory Fan Speed (RPM), reference Table 56, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.

(a) Field Supplied Fan Sheave BK190 required. Field Supplied Belt may be necessary.
(b) 7.5 HP Standard Motor with Field Supplied Motor Sheave IVP50 required. Field Supplied Belt may be necessary.
*For 380V/60 Hz units, the oversized motor is used as the standard motor. Refer to "Motor & Sheave/Fan Speed" tables to determine operating range.

## Table 35. Evaporator Fan Performance 25 Tons TC*300B Downflow or Horizontal

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 Accessory** | | | | | | | | | | | | | | **7.5-HP Standard Motor & Sheaves** | | | | | |
| 7000 | — | — | — | — | 593 | 2.42 | 619 | 2.62 | 643 | 2.80 | 667 | 2.98 | 690 | 3.16 | 712 | 3.35 | 733 | 3.53 | 754 | 3.73 |
| 7500 | — | — | 595 | 2.66 | 624 | 2.88 | 649 | 3.10 | 673 | 3.31 | 695 | 3.50 | 717 | 3.68 | 738 | 3.88 | 759 | 4.08 | 779 | 4.28 |
| 8000 | 595 | 2.92 | 627 | 3.16 | 655 | 3.39 | 679 | 3.63 | 702 | 3.86 | 724 | 4.07 | 745 | 4.28 | 766 | 4.48 | 786 | 4.68 | 805 | 4.90 |
| 8500 | 628 | 3.47 | 659 | 3.73 | 686 | 3.97 | 710 | 4.23 | 732 | 4.47 | 754 | 4.71 | 774 | 4.94 | 794 | 5.15 | 813 | 5.36 | 832 | 5.58 |
| 9000 | 661 | 4.08 | 691 | 4.36 | 717 | 4.62 | 741 | 4.89 | 763 | 5.15 | 784 | 5.41 | 803 | 5.66 | 822 | 5.89 | 841 | 6.12 | 859 | 6.35 |
| 9500 | 695 | 4.76 | 723 | 5.06 | 749 | 5.34 | 772 | 5.62 | 794 | 5.90 | 814 | 6.18 | 833 | 6.45 | 852 | 6.71 | 870 | 6.95 | 887 | 7.19 |
| 10000 | 729 | 5.52 | 755 | 5.84 | 781 | 6.13 | 804 | 6.42 | 825 | 6.72 | 844 | 7.01 | 863 | 7.31 | 881 | 7.59 | 899 | 7.86 | 916 | 8.11 |
| 10500 | 762 | 6.35 | 788 | 6.69 | 812 | 7.00 | 835 | 7.31 | 856 | 7.62 | 875 | 7.93 | 894 | 8.24 | 911 | 8.54 | — | — | — | — |
| 11000 | 796 | 7.27 | 821 | 7.63 | 844 | 7.96 | 867 | 8.3 | 887 | 8.60 | — | — | — | — | — | — | — | — | — | — |
| | | | | | | | | | | **7.5-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | | |

**Continued**

| | External Static Pressure (Inches of Water) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | |
| CFM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | **7.5-HP Standard Motor & Sheaves** | | | | | | | | | |
| 7000 | 776 | 3.95 | 798 | 4.18 | 820 | 4.40 | 841 | 4.62 | 862 | 4.84 |
| 7500 | 798 | 4.48 | 818 | 4.71 | 839 | 4.95 | 860 | 5.19 | 880 | 5.42 |
| 8000 | 824 | 5.11 | 842 | 5.32 | 860 | 5.55 | 880 | 5.80 | 899 | 6.06 |
| 8500 | 850 | 5.81 | 868 | 6.03 | 885 | 6.26 | 902 | 6.49 | 920 | 6.74 |
| 9000 | 877 | 6.58 | 894 | 6.81 | 911 | 7.05 | 928 | 7.29 | 944 | 7.53 |
| 9500 | 904 | 7.43 | 921 | 7.67 | 938 | 7.92 | 954 | 8.17 | 970 | 8.42 |
| 10000 | 933 | 8.36 | 949 | 8.62 | — | — | — | — | — | — |
| 10500 | — | — | — | — | — | — | — | — | — | — |
| 11000 | — | — | — | — | — | — | — | — | — | — |
| | **7.5-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | |

**Notes:**
1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & Low Static Drive Accessory Fan Speed (RPM), reference Table 56, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.

*For 380V/60 Hz units, the oversized motor is used as the standard motor. Refer to "Motor & Sheave/Fan Speed" tables to determine operating range.

### Table 36. Evaporator Fan Performance 25 Tons with Gas Heat YC*300B Downflow or Horizontal

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 Accessory** | | | | | | | | | | | | **7.5-HP Standard Motor & Drive** | | | | | | | |
| 7000 | — | — | — | — | 614 | 2.59 | 639 | 2.77 | 662 | 2.94 | 684 | 3.11 | 706 | 3.30 | 728 | 3.49 | 750 | 3.70 | 773 | 3.92 |
| 7500 | — | — | 621 | 2.85 | 647 | 3.08 | 671 | 3.29 | 693 | 3.48 | 715 | 3.66 | 736 | 3.85 | 756 | 4.05 | 777 | 4.26 | 797 | 4.47 |
| 8000 | 627 | 3.16 | 655 | 3.39 | 680 | 3.64 | 704 | 3.87 | 725 | 4.09 | 746 | 4.28 | 766 | 4.48 | 785 | 4.68 | 805 | 4.89 | 824 | 5.11 |
| 8500 | 662 | 3.76 | 689 | 4.00 | 714 | 4.26 | 737 | 4.52 | 758 | 4.76 | 778 | 4.98 | 797 | 5.18 | 815 | 5.39 | 834 | 5.61 | 852 | 5.83 |
| 9000 | 698 | 4.43 | 724 | 4.69 | 747 | 4.96 | 770 | 5.24 | 790 | 5.50 | 810 | 5.74 | 828 | 5.97 | 846 | 6.18 | 864 | 6.41 | 881 | 6.63 |
| 9500 | 734 | 5.18 | 758 | 5.45 | 781 | 5.73 | 803 | 6.02 | 823 | 6.31 | 842 | 6.58 | 860 | 6.83 | 878 | 7.06 | 895 | 7.29 | 911 | 7.53 |
| 10000 | 770 | 6.00 | 793 | 6.29 | 816 | 6.59 | 837 | 6.89 | 856 | 7.20 | 875 | 7.49 | 893 | 7.77 | 910 | 8.02 | 926 | 8.27 | 942 | 8.51 |
| 10500 | 806 | 6.92 | 829 | 7.22 | 850 | 7.53 | 870 | 7.85 | 890 | 8.17 | 908 | 8.48 | — | — | — | — | — | — | — | — |
| 11000 | 842 | 7.92 | 864 | 8.24 | 885 | 8.56 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | | | | | | | **7.5-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | | | | | |

**Continued**

| | External Static Pressure (Inches of Water) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | |
| CFM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | **7.5-HP Standard Motor & Drive** | | | | | | | | | |
| 7000 | 795 | 4.14 | 816 | 4.36 | 837 | 4.58 | 858 | 4.80 | 879 | 5.03 |
| 7500 | 818 | 4.70 | 839 | 4.94 | 859 | 5.18 | 879 | 5.41 | 899 | 5.65 |
| 8000 | 843 | 5.34 | 862 | 5.58 | 882 | 5.83 | 901 | 6.09 | 920 | 6.34 |
| 8500 | 870 | 6.06 | 888 | 6.30 | 906 | 6.55 | 924 | 6.81 | 943 | 7.08 |
| 9000 | 898 | 6.87 | 916 | 8.11 | 933 | 7.36 | 950 | 7.62 | 967 | 7.89 |
| 9500 | 928 | 7.77 | 944 | 8.01 | 960 | 8.27 | 977 | 8.53 | — | — |
| 10000 | — | — | — | — | — | — | — | — | — | — |
| 10500 | — | — | — | — | — | — | — | — | — | — |
| 11000 | — | — | — | — | — | — | — | — | — | — |
| | **7.5-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | |

**Notes:**

1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & Low Static Drive Accessory Fan Speed (RPM), reference Table 56, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.
   *For 380V/60 Hz units, the oversized motor is used as the standard motor. Refer to "Motor & Sheave/Fan Speed" tables to determine operating range.

## Table 37. Evaporator Fan Performance 12½ Tons TCD151C Standard or TXV Refrigeration System Downflow

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 & Field Supplied Low Static Drive[a]** | | | | | | | | | | | | **3-HP Standard Motor & Drive** | | | | | | | |
| 2500* | — | — | 402 | 0.30 | 460 | 0.39 | 510 | 0.48 | 555 | 0.56 | 595 | 0.64 | 633 | 0.74 | 667 | 0.83 | 699 | 0.92 | 731 | 1.02 |
| 3250* | 378 | 0.35 | 447 | 0.49 | 503 | 0.62 | 552 | 0.74 | 595 | 0.86 | 634 | 0.97 | 672 | 1.08 | 706 | 1.19 | 739 | 1.30 | 769 | 1.40 |
| 4000* | 430 | 0.56 | 495 | 0.74 | 549 | 0.91 | 596 | 1.07 | 638 | 1.22 | 677 | 1.37 | 712 | 1.52 | 747 | 1.66 | 778 | 1.80 | 809 | 1.94 |
| 4500 | 466 | 0.74 | 528 | 0.95 | 580 | 1.14 | 627 | 1.33 | 668 | 1.51 | 706 | 1.68 | 742 | 1.85 | 776 | 2.02 | 806 | 2.18 | 836 | 2.34 |
| 5000 | 503 | 0.96 | 562 | 1.20 | 612 | 1.42 | 657 | 1.63 | 699 | 1.84 | 736 | 2.04 | 771 | 2.23 | 803 | 2.41 | 835 | 2.61 | 865 | 2.80 |
| 5500 | 540 | 1.22 | 597 | 1.49 | 645 | 1.74 | 689 | 1.98 | 729 | 2.20 | 767 | 2.44 | 801 | 2.66 | 833 | 2.87 | 864 | 3.07 | 893 | 3.28 |
| 6000 | 579 | 1.53 | 633 | 1.82 | 680 | 2.10 | 722 | 2.37 | 761 | 2.63 | 797 | 2.87 | 832 | 3.13 | 864 | 3.38 | 894 | 3.61 | 922 | 3.83 |
| | | | | | | **3-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | | **5-HP Oversized Motor & Drive** | | | | |

**Continued**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | | 1.70 | | 1.80 | | 1.90 | | 2.00 | |
| CFM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | **3-HP Standard Motor & Drive** | | | | | | **3-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | | | | | |
| 2500* | 760 | 1.11 | 789 | 1.21 | 817 | 1.31 | 842 | 1.41 | 868 | 1.51 | 892 | 1.60 | 916 | 1.71 | 939 | 1.81 | 962 | 1.91 | 984 | 2.01 |
| 3250* | 798 | 1.52 | 827 | 1.64 | 853 | 1.76 | 880 | 1.88 | 905 | 2.01 | 928 | 2.13 | 953 | 2.26 | 976 | 2.38 | 998 | 2.51 | 1020 | 2.63 |
| 4000* | 839 | 2.07 | 867 | 2.21 | 893 | 2.33 | 919 | 2.47 | 943 | 2.59 | 967 | 2.73 | 991 | 2.88 | 1013 | 3.03 | 1036 | 3.18 | 1056.4 | 3.33 |
| 4500 | 865 | 2.50 | 892 | 2.66 | 919 | 2.81 | 945 | 2.96 | 970 | 3.11 | 994 | 3.25 | 1017 | 3.40 | 1039 | 3.55 | 1061 | 3.70 | 1082.3 | 3.85 |
| 5000 | 892 | 2.97 | 920 | 3.15 | 946 | 3.33 | 971 | 3.50 | 996 | 3.68 | 1020 | 3.85 | 1043 | 4.02 | 1066 | 4.18 | 1088 | 4.35 | 1109.6 | 4.50 |
| 5500 | 922 | 3.49 | 949 | 3.70 | 975 | 3.90 | 999 | 4.09 | 1023 | 4.28 | 1047 | 4.48 | 1070 | 4.68 | 1091 | 4.87 | 1114 | 5.06 | 1135.6 | 5.24 |
| 6000 | 950 | 4.05 | 977 | 4.29 | 1002 | 4.51 | 1028 | 4.74 | 1052 | 4.96 | 1074 | 5.16 | 1098 | 5.38 | 1120 | 5.59 | — | — | — | — |
| | **5-HP Oversized Motor & Drive** | | | | | | | | | | | | | | | | | | | |

**Notes:**

1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & Low Static Drive Accessory Fan Speed (RPM), reference Table 56, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.
   *****For 2500, 3250 and 4000 CFM, unit applications below 320 CFM/Ton are only applicable to TCD models only (No Gas Heat). See below for restrictions.

- Electric heaters restricted on applications below 320 CFM/Ton.
- Dehumidification (Hot Gas Reheat) or TXV with Frostat and Crankcase Heaters are required on applications below 320 CFM/Ton.

(a) Field Supplied Fan Sheave BK115 Required. Field Supplied Belt may be necessary.

### Table 38. Evaporator Fan Performance 12½ Tons T*D151C Dehumidification (Hot Gas Reheat Option) Downflow

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 & Drive w/Field Supplied Low Static Drive Fan Sheave** | | | | | | | | | | | | | **3-HP Standard Motor & Drive** | | | | | | |
| 2500* | — | — | — | — | 526 | 0.52 | 570 | 0.62 | 609 | 0.73 | 646 | 0.83 | 681 | 0.93 | 713 | 1.03 | 744 | 1.14 | 776 | 1.25 |
| 3000* | — | — | 534 | 0.63 | 578 | 0.74 | 618 | 0.86 | 656 | 0.98 | 692 | 1.11 | 725 | 1.23 | 756 | 1.35 | 786 | 1.48 | 814 | 1.60 |
| 3500* | 551 | 0.78 | 594 | 0.90 | 633 | 1.03 | 670 | 1.16 | 706 | 1.30 | 739 | 1.44 | 771 | 1.58 | 802 | 1.73 | 831 | 1.88 | 859 | 2.02 |
| 4000 | 618 | 1.11 | 656 | 1.26 | 692 | 1.40 | 727 | 1.55 | 759 | 1.71 | 791 | 1.86 | 821 | 2.01 | 850 | 2.17 | 878 | 2.34 | 905 | 2.50 |
| 4500 | 686 | 1.54 | 720 | 1.71 | 753 | 1.87 | 785 | 2.03 | 815 | 2.20 | 844 | 2.37 | 873 | 2.54 | 901 | 2.71 | 928 | 2.89 | 953 | 3.07 |
| 5000 | 755 | 2.07 | 786 | 2.26 | 816 | 2.44 | 846 | 2.61 | 874 | 2.79 | 902 | 2.98 | 928 | 3.17 | 954 | 3.37 | 979 | 3.56 | 1004 | 3.75 |
| | | | **3-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | | | | | | | | | |
| 5500 | 824 | 2.71 | 853 | 2.91 | 881 | 3.13 | 908 | 3.32 | 935 | 3.51 | 960 | 3.70 | 985 | 3.91 | 1010 | 4.13 | 1033 | 4.34 | 1056 | 4.54 |
| 6000 | 894 | 3.47 | 921 | 3.70 | 947 | 3.93 | 972 | 4.15 | 996 | 4.36 | 1021 | 4.56 | 1044 | 4.78 | 1068 | 5.01 | 1090 | 5.24 | 1112 | 5.47 |
| | | | | | | | | | | | **5-HP Oversized Motor & Drive** | | | | | | | | | | |

**Continued**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | | 1.70 | | 1.80 | | 1.90 | | 2.00 | |
| CFM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | **3-HP Standard Motor & Drive** | | | | | | **3-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | | | | | |
| 2500* | 804 | 1.36 | 832 | 1.48 | 859 | 1.59 | 883 | 1.71 | 908 | 1.83 | 931 | 1.95 | 954 | 2.08 | 977 | 2.21 | 998 | 2.33 | 1020 | 2.47 |
| 3000* | 842 | 1.73 | 869 | 1.85 | 895 | 1.98 | 920 | 2.11 | 945 | 2.24 | 968 | 2.38 | 991 | 2.51 | 1014 | 2.65 | 1035 | 2.79 | 1057 | 2.94 |
| 3500* | 885 | 2.17 | 910 | 2.31 | 935 | 2.45 | 959 | 2.59 | 983 | 2.74 | 1006 | 2.89 | 1029 | 3.04 | 1051 | 3.19 | 1072 | 3.34 | 1093 | 3.49 |
| 4000 | 930 | 2.67 | 956 | 2.85 | 980 | 3.01 | 1003 | 3.17 | 1026 | 3.34 | 1047 | 3.50 | 1069 | 3.66 | 1090 | 3.82 | 1110 | 3.99 | 1132 | 4.16 |
| 4500 | 978 | 3.25 | 1002 | 3.44 | 1026 | 3.63 | 1049 | 3.83 | 1071 | 4.02 | 1093 | 4.21 | 1113 | 4.38 | 1134 | 4.57 | 1154 | 4.75 | 1174 | 4.94 |
| 5000 | 1028 | 3.94 | 1051 | 4.14 | 1074 | 4.35 | 1096 | 4.55 | 1118 | 4.76 | 1140 | 4.98 | 1159 | 5.18 | 1180 | 5.40 | 1200 | 5.61 | — | — |
| 5500 | 1079 | 4.76 | 1102 | 4.97 | 1123 | 5.17 | 1146 | 5.40 | 1166 | 5.62 | — | — | — | — | — | — | — | — | — | — |
| 6000 | 1133 | 5.70 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | **5-HP Oversized Motor & Drive** | | | | | | **5-HP Oversized Motor & Drive w/Field Supplied Fan Sheave** | | | | | | | | | | | | | |

**Notes:**

1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & Low Static Drive Accessory Fan Speed (RPM), reference Table 56, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.

*****For 2500, 3000 and 3500 CFM, unit applications below 320 CFM/Ton are only applicable to TCD models only (No Gas Heat). See below for restrictions.

- Electric heaters restricted on applications below 320 CFM/Ton.
- Dehumidification (Hot Gas Reheat) or TXV with Frostat and Crankcase Heaters are required on applications below 320 CFM/Ton.

**Table 39. Evaporator Fan Performance 12½ Tons TCH151C Standard Refrigeration System Horizontal**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 & Field Supplied Low Static Drive[a]** | | | | | | | | | | | | | | **3-HP Standard Motor & Drive** | | | | | |
| 4000 | — | — | — | — | 510 | 0.98 | 541 | 1.10 | 572 | 1.22 | 602 | 1.35 | 631 | 1.48 | 659 | 1.62 | 687 | 1.76 | 714 | 1.91 |
| 4500 | — | — | 521 | 1.17 | 551 | 1.29 | 579 | 1.42 | 607 | 1.56 | 635 | 1.68 | 662 | 1.82 | 688 | 1.98 | 713 | 2.13 | 738 | 2.28 |
| 5000 | 534 | 1.40 | 566 | 1.54 | 593 | 1.67 | 620 | 1.81 | 645 | 1.95 | 671 | 2.11 | 696 | 2.25 | 720 | 2.40 | 744 | 2.56 | 767 | 2.73 |
| 5500 | 581 | 1.83 | 611 | 1.99 | 637 | 2.13 | 661 | 2.28 | 685 | 2.43 | 709 | 2.59 | 732 | 2.76 | 754 | 2.92 | 777 | 3.08 | 799 | 3.25 |
| 6000 | 628 | 2.34 | 657 | 2.51 | 682 | 2.68 | 704 | 2.83 | 727 | 3.00 | 749 | 3.16 | 770 | 3.33 | 791 | 3.52 | 812 | 3.70 | 833 | 3.87 |
| | | | | | | | | | | | | | | | **5-HP Oversized Motor & Drive** | | | | | |

**Continued**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | | 1.70 | | 1.80 | | 1.90 | | 2.00 | |
| CFM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | **3-HP Standard Motor & Drive** | | | | | | | | **3-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | | | |
| 4000 | 740 | 2.07 | 766 | 2.23 | 791 | 2.38 | 814 | 2.54 | 838 | 2.70 | 860 | 2.86 | 883 | 3.02 | 905 | 3.19 | 926 | 3.37 | 948 | 3.55 |
| 4500 | 763 | 2.44 | 787 | 2.61 | 811 | 2.78 | 835 | 2.96 | 858 | 3.13 | 880 | 3.31 | 901 | 3.48 | 922 | 3.66 | 943 | 3.84 | 963 | 4.02 |
| 5000 | 790 | 2.90 | 812 | 3.07 | 835 | 3.24 | 857 | 3.42 | 879 | 3.61 | 901 | 3.81 | 922 | 4.00 | 942 | 4.20 | 962 | 4.39 | 982 | 4.59 |
| 5500 | 820 | 3.43 | 842 | 3.61 | 862 | 3.80 | 883 | 3.98 | 904 | 4.17 | 924 | 4.37 | 944 | 4.57 | 964 | 4.78 | 984 | 4.99 | 1003 | 5.20 |
| 6000 | 853 | 4.04 | 874 | 4.23 | 893 | 4.43 | 913 | 4.63 | 932 | 4.83 | 951 | 5.03 | 970 | 5.24 | 988 | 5.45 | 1007 | 5.66 | — | — |
| | | | | | | | | | **5-HP Oversized Motor & Drive** | | | | | | | | | | | |

**Notes:**

1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & Low Static Drive Accessory Fan Speed (RPM), reference Table 56, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.

(a) Field Supplied Fan Sheave BK115 Required. Field Supplied Belt may be necessary.

### Table 40. Evaporator Fan Performance 12½ Tons with Gas Heat YCD151C Standard or TXV Refrigeration System Downflow

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 & Field Supplied Low Static Drive[a]** | | | | | | | | | | | **3-HP Standard Motor & Drive** | | | | | | | | |
| 4000 | — | — | 497 | 0.75 | 551 | 0.92 | 598 | 1.08 | 641 | 1.23 | 680 | 1.38 | 716 | 1.53 | 750 | 1.67 | 782 | 1.82 | 812 | 1.96 |
| 4500 | — | — | 531 | 0.96 | 583 | 1.16 | 629 | 1.34 | 671 | 1.52 | 709 | 1.70 | 745 | 1.87 | 778 | 2.03 | 810 | 2.20 | 840 | 2.36 |
| 5000 | 506 | 0.98 | 565 | 1.21 | 616 | 1.43 | 661 | 1.65 | 701 | 1.85 | 739 | 2.05 | 774 | 2.25 | 807 | 2.44 | 838 | 2.63 | 868 | 2.81 |
| 5500 | 544 | 1.24 | 600 | 1.51 | 649 | 1.76 | 693 | 2.00 | 733 | 2.23 | 770 | 2.45 | 804 | 2.67 | 837 | 2.89 | 868 | 3.10 | 897 | 3.31 |
| 6000 | 582 | 1.55 | 636 | 1.84 | 684 | 2.12 | 726 | 2.39 | 765 | 2.65 | 801 | 2.90 | 835 | 3.15 | 867 | 3.39 | 898 | 3.63 | 927 | 3.86 |
| | | | | | **3-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | | | **5-HP Oversized Motor & Drive** | | | | |

**Continued**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | | 1.70 | | 1.80 | | 1.90 | | 2.00 | |
| CFM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | **3-HP Standard Motor & Drive** | | | | | | | | | | | **3-HP Standard Motor & High Static Drive Accessory** | | | | | | | | |
| 4000 | 841 | 2.09 | 869 | 2.23 | 896 | 2.36 | 922 | 2.50 | 947 | 2.63 | 971 | 2.76 | 994 | 2.89 | 1016 | 3.04 | 1037 | 3.19 | 1059 | 3.35 |
| 4500 | 869 | 2.52 | 896 | 2.68 | 923 | 2.84 | 948 | 2.99 | 973 | 3.14 | 997 | 3.30 | 1020 | 3.45 | 1043 | 3.60 | 1065 | 3.75 | 1087 | 3.89 |
| 5000 | 897 | 2.99 | 924 | 3.17 | 950 | 3.35 | 976 | 3.53 | 1000 | 3.71 | 1024 | 3.88 | 1047 | 4.05 | 1070 | 4.22 | 1092 | 4.39 | 1113 | 4.56 |
| 5500 | 925 | 3.52 | 952 | 3.72 | 978 | 3.92 | 1004 | 4.12 | 1028 | 4.32 | 1052 | 4.51 | 1075 | 4.71 | 1097 | 4.90 | 1119 | 5.09 | 1140 | 5.28 |
| 6000 | 955 | 4.09 | 981 | 4.32 | 1007 | 4.54 | 1032 | 4.77 | 1056 | 4.99 | 1080 | 5.21 | 1103 | 5.42 | 1125 | 5.64 | — | — | — | — |
| | **5-HP Oversized Motor & Drive** | | | | | | | | | | | | | | | | | | | |

**Notes:**
1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & Low Static Drive Accessory Fan Speed (RPM), reference Table 56, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.

(a) Field Supplied Fan Sheave BK115 Required. Field Supplied Belt may be necessary.

**Table 41. Evaporator Fan Performance 12½ Tons with Gas Heat Y*D151C Dehumidification (Hot Gas Reheat Option) Downflow**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 & Drive** | | | | | | | | | | | **3-HP Standard Motor & High Static Drive Accessory** | | | | | | | | |
| 4000 | 640 | 1.12 | 677 | 1.25 | 711 | 1.39 | 745 | 1.53 | 776 | 1.68 | 806 | 1.82 | 835 | 1.97 | 864 | 2.12 | 891 | 2.27 | 916 | 2.41 |
| 4500 | 711 | 1.56 | 745 | 1.70 | 776 | 1.85 | 806 | 2.01 | 836 | 2.17 | 864 | 2.33 | 891 | 2.49 | 917 | 2.66 | 944 | 2.83 | 969 | 2.9 |
| 5000 | 783 | 2.10 | 813 | 2.26 | 843 | 2.42 | 870 | 2.59 | 897 | 2.77 | 924 | 2.94 | 950 | 3.12 | 975 | 3.31 | 998 | 3.49 | 1022 | 3.68 |
| 5500 | 855 | 2.76 | 883 | 2.93 | 910 | 3.11 | 936 | 3.29 | 961 | 3.49 | 986 | 3.67 | 1011 | 3.87 | 1035 | 4.07 | 1057 | 4.26 | 1079 | 4.46 |
| 6000 | 928 | 3.54 | 954 | 3.74 | 979 | 3.93 | 1003 | 4.12 | 1027 | 4.33 | 1050 | 4.54 | 1072 | 4.74 | 1095 | 4.95 | 1117 | 5.16 | 1138 | 5.38 |

**5-HP Oversized Motor & Drive**

**Continued**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | | 1.70 | | 1.80 | | 1.90 | | 2.00 | |
| CFM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | **3-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | | | | **5-HP Oversized Motor & Drive** | | | | | | | |
| 4000 | 940 | 2.56 | 964 | 2.71 | 987 | 2.86 | 1011 | 3.01 | 1034 | 3.16 | 1056 | 3.32 | 1077 | 3.47 | 1098 | 3.62 | 1120 | 3.79 | 1140 | 3.95 |
| 4500 | 994 | 3.16 | 1016 | 3.32 | 1038 | 3.49 | 1059 | 3.66 | 1080 | 3.83 | 1102 | 4.00 | 1122 | 4.17 | 1143 | 4.34 | 1163 | 4.51 | 1183 | 4.68 |
| 5000 | 1046 | 3.86 | 1069 | 4.05 | 1091 | 4.23 | 1112 | 4.41 | 1133 | 4.60 | 1152 | 4.78 | 1172 | 4.97 | 1190 | 5.15 | 1209 | 5.34 | 1228 | 5.53 |
| 5500 | 1101 | 4.67 | 1122 | 4.87 | 1143 | 5.07 | 1165 | 5.27 | 1186 | 5.48 | 1206 | 5.69 | — | — | — | — | — | — | — | — |
| 6000 | 1159 | 5.60 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

**5-HP Oversized Motor & Field Supplied High Static Drive[a]**

**Notes:**
1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & Low Static Drive Accessory Fan Speed (RPM), reference Table 56, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.

(a) Field Supplied Fan Sheave BK120. Field Supplied Belt may be necessary.

**Table 42. Evaporator Fan Performance 12½ Tons with Gas Heat YCH151C Standard Refrigeration System Horizontal**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 & Field Supplied Low Static Drive[a]** | | | | | | | | | | | | **3-HP Standard Motor & Drive** | | | | | | | |
| 4000 | — | — | — | — | 520 | 1.01 | 550 | 1.13 | 580 | 1.25 | 610 | 1.38 | 638 | 1.51 | 666 | 1.65 | 693 | 1.80 | 720 | 1.95 |
| 4500 | 502 | 1.10 | 533 | 1.21 | 562 | 1.34 | 590 | 1.47 | 617 | 1.60 | 644 | 1.73 | 671 | 1.88 | 696 | 2.03 | 721 | 2.18 | 746 | 2.33 |
| 5000 | 551 | 1.47 | 579 | 1.61 | 606 | 1.74 | 632 | 1.87 | 657 | 2.02 | 682 | 2.17 | 706 | 2.31 | 730 | 2.46 | 754 | 2.63 | 777 | 2.80 |
| 5500 | 600 | 2.92 | 627 | 2.08 | 651 | 2.22 | 675 | 237 | 699 | 2.52 | 722 | 2.68 | 744 | 2.85 | 766 | 3.00 | 788 | 3.16 | 810 | 3.34 |
| 6000 | 649 | 2.46 | 675 | 2.64 | 698 | 2.79 | 720 | 2.94 | 742 | 3.11 | 764 | 3.28 | 785 | 3.46 | 805 | 3.64 | 825 | 3.81 | 845 | 3.98 |
| | | | | | | | | | | | | | | | **5-HP Oversized Motor & Drive** | | | | | |

**Continued**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | | 1.70 | | 1.80 | | 1.90 | | 2.00 | |
| CFM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | **3-HP Standard Motor & Drive** | | | | | | | | | | **3-HP Standard Motor & High Static Drive** | | | | | | | | | |
| 4000 | 746 | 2.10 | 771 | 2.26 | 795 | 2.41 | 819 | 2.57 | 842 | 2.72 | 864 | 2.89 | 886 | 3.05 | 908 | 3.22 | 929 | 3.40 | 951 | 3.58 |
| 4500 | 770 | 2.49 | 794 | 2.66 | 818 | 2.83 | 841 | 3.01 | 863 | 3.18 | 885 | 3.35 | 906 | 3.53 | 927 | 3.70 | 947 | 3.88 | 967 | 4.06 |
| 5000 | 799 | 2.96 | 821 | 3.13 | 843 | 3.31 | 965 | 3.49 | 887 | 3.68 | 908 | 3.87 | 929 | 4.07 | 949 | 4.26 | 969 | 4.45 | 988 | 4.64 |
| 5500 | 831 | 3.52 | 852 | 3.70 | 873 | 3.89 | 893 | 4.07 | 913 | 4.26 | 933 | 4.46 | 953 | 4.66 | 972 | 4.87 | 992 | 5.08 | 1011 | 5.29 |
| 6000 | 865 | 4.15 | 885 | 4.35 | 905 | 4.55 | 924 | 4.75 | 943 | 4.95 | 962 | 5.15 | 980 | 5.35 | 999 | 5.56 | — | — | — | — |
| | **5-HP Oversized Motor & Drive** | | | | | | | | | | | | | | | | | | | |

**Notes:**
1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & Low Static Drive Accessory Fan Speed (RPM), reference Table 56, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.

(a) Field Supplied Fan Sheave BK115 required. Field Supplied Belt may be necessary.

## Table 43. Evaporator Fan Performance 15 Tons TC*181C Standard or TXV Refrigeration System Downflow or Horizontal

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 & Field Supplied Extra Low Static Drive** | | | | | | | | | | **3-HP Standard Motor & Field Supplied Low Static Drive[a]** | | | | | | | | | |
| 3000* | — | — | 337 | 0.32 | 387 | 0.42 | 432 | 0.53 | 472 | 0.65 | 511 | 0.77 | 547 | 0.90 | 580 | 1.03 | 611 | 1.16 | 640 | 1.29 |
| 3900* | 341 | 0.45 | 384 | 0.55 | 423 | 0.66 | 462 | 0.78 | 500 | 0.91 | 536 | 1.05 | 569 | 1.19 | 600 | 1.35 | 630 | 1.51 | 660 | 1.67 |
| 4800 | 399 | 0.76 | 437 | 0.89 | 471 | 1.01 | 503 | 1.14 | 535 | 1.29 | 566 | 1.44 | 598 | 1.60 | 629 | 1.77 | 658 | 1.94 | 684 | 2.11 |
| 5400 | 445 | 1.04 | 474 | 1.19 | 506 | 1.33 | 536 | 1.47 | 564 | 1.62 | 592 | 1.78 | 621 | 1.95 | 648 | 2.12 | 676 | 2.30 | 704 | 2.49 |
| 6000 | 479 | 1.38 | 513 | 1.55 | 543 | 1.72 | 571 | 1.87 | 597 | 2.03 | 623 | 2.19 | 648 | 2.36 | 673 | 2.55 | 699 | 2.74 | 723 | 2.93 |
| 6600 | 519 | 1.79 | 552 | 1.98 | 580 | 2.17 | 606 | 2.35 | 632 | 2.52 | 656 | 2.69 | 679 | 2.87 | 702 | 3.05 | 725 | 3.25 | 748 | 3.46 |
| 7200 | 560 | 2.28 | 591 | 2.49 | 618 | 2.70 | 643 | 2.91 | 667 | 3.09 | 690 | 3.27 | 712 | 3.46 | 734 | 3.65 | 755 | 3.85 | 776 | 4.06 |
| | | | | | | | | | | | **3-HP Standard Motor & Drive** | | | | | | | | | |

**Continued**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | | 1.70 | | 1.80 | | 1.90 | | 2.00 | |
| CFM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | **3-HP Standard Motor & Drive** | | | | | | | | **3-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | | | |
| 3000* | 667 | 1.43 | 693 | 1.57 | 717 | 1.71 | 740 | 1.86 | 763 | 2.01 | 784 | 2.16 | 805 | 2.31 | 825 | 2.47 | 845 | 2.63 | 864 | 2.80 |
| 3900* | 688 | 1.84 | 715 | 2.00 | 741 | 2.17 | 766 | 2.34 | 790 | 2.51 | 812 | 2.68 | 834 | 2.85 | 855 | 3.03 | 875 | 3.21 | 895 | 3.39 |
| 4800 | 710 | 2.29 | 735 | 2.48 | 760 | 2.68 | 785 | 2.88 | 809 | 3.09 | 832 | 3.29 | 854 | 3.49 | 876 | 3.69 | 898 | 3.90 | 919 | 4.10 |
| 5400 | 730 | 2.68 | 755 | 2.88 | 778 | 3.07 | 800 | 3.28 | 823 | 3.49 | 845 | 3.71 | 867 | 3.94 | 889 | 4.17 | 910 | 4.40 | 931 | 4.62 |
| 6000 | 749 | 3.13 | 774 | 3.34 | 798 | 3.56 | 821 | 3.77 | 842 | 3.99 | 863 | 4.20 | 884 | 4.43 | 904 | 4.66 | 924 | 4.90 | 944 | 5.15 |
| 6600 | 771 | 3.67 | 794 | 3.88 | 816 | 4.09 | 839 | 4.32 | 862 | 4.56 | 884 | 4.80 | 904 | 5.03 | 924 | 5.27 | 943 | 5.51 | 961 | 5.75 |
| 7200 | 797 | 4.29 | 818 | 4.51 | 839 | 4.74 | 860 | 4.96 | 881 | 5.20 | 902 | 5.45 | 923 | 5.70 | — | — | — | — | — | — |
| | | | | | | | | | **5-HP Oversized Motor & Drive** | | | | | | | | | | | |

**Notes:**

1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & Low Static Drive Accessory Fan Speed (RPM), reference Table 56, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.

*****For 3000 and 3900 CFM, unit applications below 320 CFM/Ton are only applicable to TCD models only (No Gas Heat). See below for restrictions.

- Electric heaters restricted on applications below 320 CFM/Ton.
- Dehumidification (Hot Gas Reheat) or TXV with Frostat and Crankcase Heaters are required on applications below 320 CFM/Ton.

(a) Field Supplied Fan Sheave BK120 Required. Field Supplied Belt may be necessary.

### Table 44. Evaporator Fan Performance 15 Tons T*D181C Dehumidification (Hot Gas Reheat Option) Downflow

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 Motor Sheave[a]** | | | | **3-HP Standard Motor w/ Field Supplied Motor Sheave[b]** | | | | | | **3-HP Standard Motor w/ Field Supplied Low Static Drive Fan Sheave** | | | | | | | | | |
| 3000* | 295 | 0.26 | 346 | 0.35 | 391 | 0.45 | 432 | 0.56 | 471 | 0.68 | 506 | 0.80 | 539 | 0.92 | 569 | 1.04 | 596 | 1.17 | 622 | 1.30 |
| 3600* | 333 | 0.40 | 379 | 0.51 | 420 | 0.62 | 458 | 0.74 | 494 | 0.87 | 527 | 1.00 | 559 | 1.14 | 589 | 1.28 | 617 | 1.43 | 644 | 1.57 |
| 4200* | 373 | 0.60 | 415 | 0.72 | 452 | 0.85 | 487 | 0.98 | 520 | 1.12 | 551 | 1.26 | 581 | 1.41 | 610 | 1.57 | 638 | 1.73 | 664 | 1.89 |
| 4800 | 414 | 0.84 | 452 | 0.99 | 487 | 1.13 | 519 | 1.27 | 550 | 1.43 | 579 | 1.59 | 607 | 1.74 | 635 | 1.91 | 660 | 2.08 | 686 | 2.26 |
| 5400 | 455 | 1.14 | 491 | 1.32 | 524 | 1.48 | 554 | 1.64 | 582 | 1.80 | 610 | 1.98 | 637 | 2.15 | 662 | 2.33 | 687 | 2.51 | 710 | 2.70 |
| 6000 | 497 | 1.51 | 531 | 1.73 | 561 | 1.91 | 590 | 2.08 | 617 | 2.26 | 643 | 2.44 | 667 | 2.63 | 692 | 2.83 | 715 | 3.02 | 739 | 3.22 |
| 6600 | 540 | 1.96 | 572 | 2.20 | 601 | 2.42 | 628 | 2.61 | 653 | 2.80 | 678 | 2.99 | 701 | 3.20 | 724 | 3.41 | 746 | 3.61 | 768 | 3.83 |
| 7200 | 583 | 2.50 | 613 | 2.75 | 641 | 3.02 | 666 | 3.23 | 690 | 3.44 | 714 | 3.65 | 736 | 3.86 | 758 | 4.08 | 778 | 4.30 | 799 | 4.53 |
| | **3-HP Standard Motor & Drive** | | | | | | | | | | **5-HP Oversized Motor & Drive** | | | | | | | | | |

**Continued**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | | 1.70 | | 1.80 | | 1.90 | | 2.00 | |
| CFM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | **3-HP Standard Motor & Drive** | | | | | | | | | | | **3-HP Standard Motor & High Static Drive Accessory** | | | | | | | | |
| 3000* | 646 | 1.43 | 669 | 1.56 | 692 | 1.70 | 714 | 1.84 | 734 | 1.98 | 755 | 2.13 | 775 | 2.28 | 793 | 2.42 | 813 | 2.58 | 830 | 2.72 |
| 3600* | 669 | 1.72 | 694 | 1.88 | 716 | 2.02 | 738 | 2.18 | 759 | 2.34 | 778 | 2.49 | 798 | 2.66 | 817 | 2.82 | 835 | 2.98 | 854 | 3.16 |
| 4200* | 690 | 2.06 | 715 | 2.23 | 737 | 2.39 | 760 | 2.57 | 782 | 2.74 | 803 | 2.92 | 822 | 3.09 | 842 | 3.28 | 861 | 3.46 | 878 | 3.64 |
| 4800 | 711 | 2.44 | 735 | 2.63 | 758 | 2.81 | 780 | 3.00 | 802 | 3.19 | 823 | 3.38 | 843 | 3.58 | 864 | 3.78 | 882 | 3.97 | 901 | 4.17 |
| 5400 | 734 | 2.89 | 758 | 3.09 | 780 | 3.29 | 801 | 3.49 | 822 | 3.69 | 844 | 3.91 | 864 | 4.12 | 883 | 4.33 | 903 | 4.55 | 921 | 4.76 |
| 6000 | 761 | 3.42[c] | 782 | 3.63 | 804 | 3.84 | 824 | 4.05 | 845 | 4.27 | 865 | 4.49 | 885 | 4.72 | 904 | 4.95 | 923 | 5.18 | 941 | 5.41 |
| 6600 | 789 | 4.05 | 810 | 4.26 | 831 | 4.49 | 850 | 4.71 | 870 | 4.94 | 889 | 5.18 | 908 | 5.41 | 927 | 5.65 | — | — | — | — |
| 7200 | 819 | 4.76 | 840 | 5.00 | 859 | 5.23 | 879 | 5.47 | 898 | 5.72 | — | — | — | — | — | — | — | — | — | — |
| | **5-HP Oversized Motor & Drive** | | | | | | | | | | | | | | | | | | | |

**Notes:**

1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & Low Static Drive Accessory Fan Speed (RPM), reference Table 56, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.
   *For 3000, 3600 and 4200 CFM, unit applications below 320 CFM/Ton are only applicable to TCD models only (No Gas Heat). See below for restrictions.

- Electric heaters restricted on applications below 320 CFM/Ton.
- Dehumidification (Hot Gas Reheat) or TXV with Frostat and Crankcase Heaters are required on applications below 320 CFM/Ton.

(a) Field Supplied Fan Sheave BK160 Required. Field Supplied Belt may be necessary. Field Supplied Belt may be necessary.
(b) Field Supplied Fan Sheave BK120 Required. Field Supplied Belt may be necessary. Field Supplied Belt may be necessary.
(c) 3-HP Standard Motor & High Static Drive Accessory.

## Table 45. Evaporator Fan Performance 15 Tons with Gas Heat YC*181C Standard or TXV Refrigeration System Downflow or Horizontal

External Static Pressure (Inches of Water)

| | .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 & Field Supplied Low Static Drive[a]** | | | | | | | | | | | | **3-HP Standard Motor & Drive** | | | | | | | |
| 4800 | 414 | 0.81 | 450 | 0.94 | 483 | 1.06 | 515 | 1.20 | 548 | 1.35 | 578 | 1.50 | 609 | 1.66 | 640 | 1.83 | 668 | 2.00 | 694 | 2.18 |
| 5400 | 456 | 1.11 | 490 | 1.26 | 520 | 1.39 | 549 | 1.54 | 578 | 1.70 | 607 | 1.87 | 635 | 2.03 | 662 | 2.21 | 689 | 2.39 | 716 | 2.58 |
| 6000 | 499 | 1.48 | 531 | 1.65 | 559 | 1.81 | 585 | 1.96 | 611 | 2.12 | 638 | 2.29 | 664 | 2.48 | 689 | 2.67 | 714 | 2.85 | 738 | 3.05 |
| 6600 | 542 | 1.92 | 572 | 2.12 | 599 | 2.3 | 624 | 2.46 | 648 | 2.63 | 671 | 2.81 | 695 | 3.00 | 719 | 3.20 | 743 | 3.41 | 765 | 3.62 |
| 7200 | 586 | 2.45 | 614 | 2.67 | 640 | 2.88 | 663 | 3.06 | 686 | 3.24 | 708 | 3.42 | 729 | 3.61 | 751 | 3.82 | 773 | 4.04 | 795 | 4.26 |
| | | | | | | | | | | | | | **5-HP Oversized Motor & Drive** | | | | | | | |

**Continued**

External Static Pressure (Inches of Water)

| | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | | 1.70 | | 1.80 | | 1.90 | | 2.00 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | **3-HP Standard Motor & Drive** | | | | | | **3-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | | | | | |
| 4800 | 719 | 2.36 | 744 | 2.55 | 769 | 2.75 | 792 | 2.95 | 815 | 3.14 | 838 | 3.34 | 859 | 3.54 | 880 | 3.73 | 901 | 3.93 | 921 | 4.13 |
| 5400 | 742 | 2.77 | 766 | 2.97 | 789 | 3.17 | 811 | 3.38 | 833 | 3.59 | 855 | 3.81 | 876 | 4.03 | 897 | 4.26 | 917 | 4.48 | 937 | 4.70 |
| 6000 | 763 | 3.25 | 788 | 3.46 | 811 | 3.68 | 833 | 3.89 | 855 | 4.11 | 875 | 4.33 | 896 | 4.56 | 916 | 4.80 | 935 | 5.04 | 955 | 5.28 |
| 6600 | 788 | 3.82 | 810 | 4.03 | 832 | 4.26 | 855 | 4.49 | 877 | 4.72 | 898 | 4.96 | 918 | 5.20 | 937 | 5.43 | 956 | 5.67 | — | — |
| 7200 | 816 | 4.49 | 837 | 4.71 | 857 | 4.94 | 989 | 5.17 | 898 | 5.41 | 919 | 5.66 | — | — | — | — | — | — | — | — |
| | **5-HP Oversized Motor & Drive** | | | | | | | | | | | | | | | | | | | |

**Notes:**
1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & Low Static Drive Accessory Fan Speed (RPM), reference Table 56, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.

(a) Field Supplied Fan Sheave BK120 required. Field Supplied Belt may be necessary.

## Table 46. Evaporator Fan Performance 15 Tons with Gas Heat Y*D181C Dehumidification (Hot Gas Reheat) Option Downflow

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 & Field Supplied Low Static Drive[a]** | | | | | | | | | | **3-HP Standard Motor & Drive** | | | | | | | | | |
| 4800 | 427 | 0.88 | 463 | 1.03 | 496 | 1.16 | 527 | 1.31 | 557 | 1.46 | 586 | 1.61 | 614 | 1.77 | 641 | 1.93 | 667 | 2.10 | 693 | 2.29 |
| 5400 | 471 | 1.21 | 505 | 1.38 | 535 | 1.53 | 564 | 1.69 | 591 | 1.85 | 618 | 2.02 | 644 | 2.19 | 669 | 2.36 | 695 | 2.54 | 718 | 2.72 |
| 6000 | 516 | 1.61 | 547 | 1.81 | 576 | 1.98 | 603 | 2.15 | 628 | 2.33 | 653 | 2.51 | 677 | 2.70 | 700 | 2.88 | 724 | 3.07 | 747 | 3.26 |
| 6600 | 561 | 2.09 | 590 | 2.32 | 617 | 2.52 | 643 | 2.71 | 667 | 2.90 | 690 | 3.09 | 712 | 3.29 | 734 | 3.49 | 756 | 3.70 | 777 | 3.90 |
| 7200 | 607 | 2.67 | 634 | 2.92 | 659 | 3.16 | 683 | 3.36 | 707 | 3.56 | 728 | 3.77 | 749 | 3.98 | 770 | 4.20 | 791 | 4.42 | 811 | 4.64 |
| | | | | | | | | | | | **5-HP Oversized Motor & Drive** | | | | | | | | | |

**Continued**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | | 1.70 | | 1.80 | | 1.90 | | 2.00 | |
| CFM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | **3-HP Standard Motor & Drive** | | | | | | **3-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | | | | | |
| 4800 | 719 | 2.49 | 742 | 2.69 | 765 | 2.89 | 787 | 3.09 | 808 | 3.28 | 829 | 3.48 | 849 | 3.68 | 869 | 3.89 | 887 | 4.09 | 906 | 4.29 |
| 5400 | 742 | 2.91 | 765 | 3.12 | 788 | 3.34 | 810 | 3.56 | 831 | 3.79 | 852 | 4.01 | 872 | 4.24 | 891 | 4.46 | 909 | 4.67 | 928 | 4.91 |
| 6000 | 769 | 3.46 | 791 | 3.66 | 812 | 3.87 | 833 | 4.09 | 855 | 4.33 | 874 | 4.57 | 894 | 4.81 | 913 | 5.06 | 932 | 5.31 | 950 | 5.56 |
| 6600 | 799 | 4.11 | 819 | 4.32 | 840 | 4.53 | 860 | 4.75 | 879 | 4.98 | 899 | 5.22 | 918 | 5.46 | 937 | 5.72 | — | — | — | — |
| 7200 | 830 | 4.86 | 850 | 5.09 | 870 | 5.31 | 888 | 5.54 | — | — | — | — | — | — | — | — | — | — | — | — |
| | **5-HP Oversized Motor & Drive** | | | | | | | | | | | | | | | | | | | |

**Notes:**
1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & Low Static Drive Accessory Fan Speed (RPM), reference Table 56, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.

(a) Field Supplied Fan Sheave BK120 required. Field Supplied Belt may be necessary.

**Table 47. Evaporator Fan Performance 17½ Tons TC*211C Standard or TXV Refrigeration System Downflow or Horizontal**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 |
| | **5-HP Standard Motor & Field Supplied Extra Low Static Drive[a]** | | | | | | | | | | **5-HP Standard Motor & Field Supplied Low Static Drive[b]** | | | | | | | | | |
| 3500* | — | — | — | — | — | — | 448 | 0.66 | 488 | 0.78 | 523 | 0.91 | 557 | 1.05 | 590 | 1.20 | 622 | 1.35 | 652 | 1.50 |
| 4550* | — | — | — | — | 457 | 0.90 | 490 | 1.03 | 524 | 1.17 | 557 | 1.32 | 590 | 1.48 | 621 | 1.64 | 649 | 1.80 | 676 | 1.97 |
| 5600 | 452 | 1.14 | 487 | 1.30 | 518 | 1.45 | 547 | 1.60 | 575 | 1.75 | 602 | 1.91 | 629 | 2.08 | 656 | 2.26 | 683 | 2.43 | 710 | 2.63 |
| 6300 | 499 | 1.63 | 532 | 1.76 | 561 | 1.94 | 588 | 2.10 | 614 | 2.26 | 639 | 2.43 | 663 | 2.60 | 687 | 2.79 | 711 | 2.99 | 735 | 3.19 |
| 7000 | 546 | 2.11 | 578 | 2.31 | 606 | 2.52 | 631 | 2.71 | 655 | 2.89 | 678 | 3.07 | 701 | 3.25 | 723 | 3.44 | 744 | 3.64 | 766 | 3.85 |
| 7700 | 594 | 2.75 | 625 | 2.98 | 651 | 3.21 | 675 | 3.43 | 698 | 3.64 | 720 | 3.84 | 741 | 4.03 | 761 | 4.23 | 782 | 4.44 | 801 | 4.65 |
| 8400 | 642 | 3.52 | 671 | 3.78 | 697 | 4.03 | 720 | 4.27 | 741 | 4.51 | 762 | 4.73 | 782 | 4.95 | 802 | 5.16 | 821 | 5.38 | 840 | 5.60 |
| | | | | | | | | | | | | **5-HP Standard Motor & High Static Drive Accessory** | | | | | | | | |

**Continued**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 & Drive** | | | | | | | | | | **5-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | |
| 3500* | 680 | 1.65 | 707 | 1.80 | 732 | 1.95 | 756 | 2.11 | 779 | 2.27 | 801 | 2.43 | 822 | 2.60 | 843 | 2.77 | 863 | 2.94 | 882 | 3.11 |
| 4550* | 703 | 2.15 | 729 | 2.34 | 754 | 2.54 | 779 | 2.73 | 803 | 2.92 | 827 | 3.11 | 849 | 3.31 | 871 | 3.50 | 892 | 3.70 | 913 | 3.89 |
| 5600 | 736 | 2.83 | 761 | 3.03 | 785 | 3.23 | 807 | 3.43 | 829 | 3.64 | 851 | 3.86 | 872 | 4.09 | 893 | 4.32 | 914 | 4.56 | 935 | 4.80 |
| 6300 | 759 | 3.38 | 783 | 3.59 | 807 | 3.82 | 830 | 4.04 | 853 | 4.27 | 874 | 4.49 | 894 | 4.72 | 913 | 4.95 | 933 | 5.19 | 952 | 5.43 |
| 7000 | 788 | 4.07 | 810 | 4.29 | 831 | 4.51 | 852 | 4.74 | 874 | 4.97 | 895 | 5.22 | 917 | 5.47 | 937 | 5.72 | 957 | 5.97 | 975 | 6.22 |
| 7700 | 821 | 4.87 | 841 | 5.10 | 861 | 5.34 | 881 | 5.59 | 900 | 5.83 | 919 | 6.07 | 939 | 6.32 | 958 | 6.58 | 978 | 6.85 | 997 | 7.12 |
| 8400 | 858 | 5.82 | 876 | 6.06 | 894 | 6.30 | 912 | 6.55 | 930 | 6.81 | 949 | 7.08 | 967 | 7.34 | 984 | 7.60 | 1002 | 7.87 | — | — |
| | **7.5-HP Oversized Motor & Drive** | | | | | | | | | | | | | | | | | | | |

**Notes:**

1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & Low Static Drive Accessory Fan Speed (RPM), reference Table 56, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.
   *****For 3500 and 4550 CFM, unit applications below 320 CFM/Ton are only applicable to TCD models only (No Gas Heat). See below for restrictions.

- Electric heaters restricted on applications below 320 CFM/Ton.
- Dehumidification (Hot Gas Reheat) or TXV with Frostat and Crankcase Heaters are required on applications below 320 CFM/Ton.

(a) Field Supplied Fan Sheave 1B5V200 and Field Supplied Motor Sheave 1VP34 Required. Field Supplied Belt may be necessary.
(b) Field Supplied Fan Sheave BK190 Required. Field Supplied Belt may be necessary.

**Table 48. Evaporator Fan Performance 17½ Tons with Gas Heat YC*211C Standard or TXV Refrigeration System Downflow or Horizontal**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 |
| | **5-HP Standard Motor & Field Supplied Low Static Drive[a]** | | | | | | | | | | | **5-HP Standard Motor & Drive** | | | | | | | | |
| 5600 | — | — | — | — | 533 | 1.52 | 561 | 1.67 | 589 | 1.83 | 617 | 2.00 | 644 | 2.18 | 670 | 2.35 | 697 | 2.53 | 723 | 2.73 |
| 6300 | 521 | 1.69 | 551 | 1.88 | 579 | 2.04 | 604 | 2.20 | 629 | 2.36 | 654 | 2.54 | 679 | 2.73 | 704 | 2.93 | 728 | 3.12 | 751 | 3.32 |
| 7000 | 571 | 2.27 | 600 | 2.48 | 626 | 2.68 | 650 | 2.85 | 673 | 3.03 | 695 | 3.20 | 718 | 3.40 | 740 | 3.60 | 763 | 3.82 | 785 | 4.04 |
| 7700 | 622 | 2.96 | 650 | 3.20 | 674 | 3.43 | 697 | 3.64 | 719 | 3.83 | 739 | 4.02 | 760 | 4.21 | 780 | 4.42 | 800 | 4.64 | 821 | 4.87 |
| 8400 | 674 | 3.80 | 700 | 4.05 | 723 | 4.31 | 745 | 4.55 | 765 | 4.77 | 785 | 4.98 | 804 | 5.18 | 823 | 5.39 | 841 | 5.62 | 860 | 5.85[b] |
| | | | | | | | | | **5-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | | | |

**Continued**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 & Drive** | | | | | | | | **5-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | | | |
| 5600 | 749 | 2.93 | 773 | 3.13 | 796 | 3.33 | 818 | 3.54 | 840 | 3.75 | 861 | 3.98 | 882 | 4.20 | 903 | 4.43 | 923 | 4.66 | 943 | 4.89 |
| 6300 | 775 | 3.52 | 798 | 3.74 | 822 | 3.96 | 844 | 4.18 | 866 | 4.41 | 887 | 4.64 | 907 | 4.87 | 926 | 5.10 | 945 | 5.35 | 964 | 5.60 |
| 7000 | 806 | 4.26 | 828 | 4.48 | 849 | 4.70 | 870 | 4.93 | 891 | 5.17 | 912 | 5.41 | 932 | 5.66 | 952 | 5.92 | 971 | 6.17 | 990 | 6.42 |
| 7700 | 841 | 5.11 | 861 | 5.35 | 881 | 5.59 | 900 | 5.83 | 920 | 6.07 | 939 | 6.32 | 958 | 6.57 | 977 | 6.84 | 996 | 7.11 | — | — |
| 8400 | 878 | 6.09 | 897 | 6.34 | 916 | 6.61 | 934 | 6.87 | 953 | 7.14 | 971 | 7.40 | 988 | 7.66 | — | — | — | — | — | — |
| | **7.5-HP Oversized Motor & Drive** | | | | | | | | | | | | | | | | | | | |

**Notes:**
1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & Low Static Drive Accessory Fan Speed (RPM), reference Table 56, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.

(a) Field Supplied Fan Sheave BK190 required. Field Supplied Belt may be necessary.
(b) 7.5 HP Oversized Motor & Drive

## Table 49. Evaporator Fan Performance 20 Tons TC*241C Standard or TXV Refrigeration System Downflow or Horizontal

External Static Pressure (Inches of Water)

| | .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 |
| | **5-HP Standard Motor & Field Supplied Extra Low Static Drive[a]** | | | | | | | | | | **5-HP Standard Motor & Field Supplied Low Static Drive[b]** | | | | | | | | | |
| 4000* | — | — | — | — | 428 | 0.69 | 467 | 0.82 | 504 | 0.95 | 538 | 1.08 | 572 | 1.23 | 603 | 1.38 | 632 | 1.55 | 660 | 1.71 |
| 5200* | 426 | 0.94 | 463 | 1.09 | 494 | 1.22 | 524 | 1.35 | 555 | 1.51 | 585 | 1.67 | 614 | 1.83 | 642 | 2.00 | 670 | 2.17 | 696 | 2.35 |
| 6400 | 506 | 1.64 | 540 | 1.84 | 570 | 2.03 | 595 | 2.19 | 620 | 2.34 | 644 | 2.51 | 669 | 2.69 | 693 | 2.89 | 717 | 3.09 | 741 | 3.29 |
| 7200 | 560 | 2.28 | 592 | 2.50 | 620 | 2.72 | 646 | 2.92 | 668 | 3.10 | 690 | 3.27 | 711 | 3.45 | 733 | 3.65 | 755 | 3.86 | 777 | 4.08 |
| 8000 | 616 | 3.07 | 645 | 3.31 | 672 | 3.56 | 696 | 3.80 | 719 | 4.02 | 739 | 4.22 | 759 | 4.41 | 778 | 4.60 | 797 | 4.81 | 817 | 5.03 |
| 8800 | 671 | 4.04 | 698 | 4.29 | 724 | 4.55 | 747 | 4.83 | 769 | 5.10 | 790 | 5.34 | 808 | 5.56 | 826 | 5.77 | 844 | 5.98 | 861 | 6.20 |
| 9600 | 728 | 5.19 | 753 | 5.46 | 776 | 5.74 | 799 | 6.04 | 820 | 6.34 | 840 | 6.63 | 859 | 6.90 | 876 | 7.14 | 893 | 7.37 | 909 | 7.59 |
| | **5-HP Standard Motor & Drive** | | | | | | **7.5-HP Standard Motor w/Field Supplied Motor Sheave[c]** | | | | **7.5-HP Oversized Motor & Drive** | | | | | | | | | |

**Continued**

External Static Pressure (Inches of Water)

| | 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 & Drive** | | | | | | | | | | **5-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | |
| 4000* | 688 | 1.87 | 714 | 2.03 | 739 | 2.20 | 764 | 2.36 | 787 | 2.53 | 810 | 2.70 | 831 | 2.87 | 852 | 3.05 | 873 | 3.23 | 892 | 3.41 |
| 5200* | 722 | 2.54 | 747 | 2.73 | 771 | 2.93 | 795 | 3.14 | 817 | 3.35 | 839 | 3.56 | 861 | 3.77 | 882 | 3.98 | 902 | 4.19 | 923 | 4.41 |
| 6400 | 765 | 3.49 | 788 | 3.70 | 810 | 3.91 | 832 | 4.12 | 854 | 4.34 | 875 | 4.57 | 896 | 4.80 | 916 | 5.04 | 936 | 5.29 | 955 | 5.54 |
| 7200 | 799 | 4.31 | 820 | 4.53 | 841 | 4.76 | 862 | 4.99 | 883 | 5.22 | 902 | 5.46 | 922 | 5.69 | 942 | 5.94 | 961 | 6.19 | 980 | 6.44 |
| 8000 | 837 | 5.26 | 857 | 5.51 | 876 | 5.76 | 896 | 6.01 | 915 | 6.26 | 934 | 6.52 | 953 | 6.77 | 971 | 7.03 | 989 | 7.29 | — | — |
| 8800 | 879 | 6.43 | 897 | 6.67 | 915 | 6.93 | 933 | 7.19 | 951 | 7.46 | 969 | 7.74 | 986 | 8.01 | — | — | — | — | — | — |
| 9600 | 925 | 7.83 | 941 | 8.07 | 958 | 8.32 | 974 | 8.58 | — | — | — | — | — | — | — | — | — | — | — | — |
| | **7.5-HP Oversized Motor & Drive** | | | | | | | | | | | | | | | | | | | |

**Notes:**

1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & Low Static Drive Accessory Fan Speed (RPM), reference Table 56, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.
   *For 4000 and 5200 CFM, unit applications below 320 CFM/Ton are only applicable to TCD models only (No Gas Heat). See below for restrictions.

- Electric heaters restricted on applications below 320 CFM/Ton.
- Dehumidification (Hot Gas Reheat) or TXV with Frostat and Crankcase Heaters are required on applications below 320 CFM/Ton.

(a) Field Supplied Fan Sheave B5V200 and Field Supplied Motor Sheave 1VP34 Required. Field Supplied Belt may be necessary.
(b) Field Supplied Fan Sheave BK190 Required. Field Supplied Belt may be necessary.
(c) 7.5 Standard Motor with Field Supplied Motor Sheave IVP50 required. Field Supplied Belt may be necessary.

## Table 50. Evaporator Fan Performance 20 Tons T*D241C Dehumidification (Hot Gas Reheat Option) Downflow

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 |
| | **5-HP Standard Motor & Field Supplied Fan Sheave[a]** | | | | | | | | **5-HP Standard Motor & Drive & Field Supplied Low Static Drive Fan Sheave** | | | | | | **5-HP Standard Motor & Drive** | | | | | |
| 4000* | — | — | — | — | 441 | 0.77 | 477 | 0.90 | 511 | 1.03 | 543 | 1.17 | 573 | 1.32 | 603 | 1.47 | 631 | 1.63 | 658 | 1.78 |
| 4800* | 414 | 0.84 | 452 | 0.99 | 487 | 1.13 | 519 | 1.27 | 550 | 1.43 | 579 | 1.59 | 607 | 1.74 | 635 | 1.91 | 660 | 2.08 | 686 | 2.26 |
| 5600* | 469 | 1.25 | 504 | 1.45 | 536 | 1.61 | 566 | 1.78 | 594 | 1.95 | 620 | 2.12 | 647 | 2.30 | 672 | 2.49 | 696 | 2.67 | 720 | 2.87 |
| 6400 | 525 | 1.80 | 558 | 2.03 | 588 | 2.24 | 615 | 2.42 | 641 | 2.61 | 666 | 2.80 | 689 | 3.00 | 713 | 3.20 | 736 | 3.41 | 758 | 3.62 |
| 7200 | 583 | 2.50 | 613 | 2.75 | 641 | 3.02 | 666 | 3.23 | 690 | 3.44 | 714 | 3.65 | 736 | 3.86 | 758 | 4.08 | 778 | 4.30 | 799 | 4.53 |
| 8000 | 641 | 3.37 | 669 | 3.64 | 695 | 3.93 | 719 | 4.21 | 742 | 4.45 | 763 | 4.67 | 785 | 4.91 | 805 | 5.14 | 825 | 5.38 | 844 | 5.62[b] |
| 8800 | 699 | 4.42 | 725 | 4.72 | 750 | 5.03 | 773 | 5.35 | 794 | 5.65 | 815 | 5.91[c] | 835 | 6.15 | 854 | 6.41 | 873 | 6.66 | 892 | 6.93 |
| 9600 | 758 | 5.67 | 782 | 6.00 | 805 | 6.32 | 827 | 6.68 | 848 | 7.04 | 867 | 7.35 | 886 | 7.63 | 904 | 7.90 | 923 | 8.18 | 941 | 8.46 |
| | | | | | | | **7.5-HP Oversized Motor & Drive** | | | | | | | | | | | | | |

**Continued**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 & Drive** | | | | | | | | | | | | **5-HP Standard Motor & High Static Drive** | | | | | | | |
| 4000* | 684 | 1.94 | 708 | 2.10 | 731 | 2.27 | 753 | 2.43 | 775 | 2.60 | 795 | 2.77 | 814 | 2.94 | 834 | 3.12 | 852 | 3.29 | 870 | 3.47 |
| 4800* | 711 | 2.44 | 735 | 2.63 | 758 | 2.81 | 780 | 3.00 | 802 | 3.19 | 823 | 3.38 | 843 | 3.58 | 864 | 3.78 | 882 | 3.97 | 901 | 4.17 |
| 5600* | 743 | 3.06 | 765 | 3.26 | 787 | 3.46 | 809 | 3.67 | 830 | 3.88 | 850 | 4.09 | 871 | 4.31 | 890 | 4.53 | 910 | 4.75 | 929 | 4.98 |
| 6400 | 779 | 3.82 | 800 | 4.04 | 821 | 4.26 | 841 | 4.48 | 861 | 4.70 | 881 | 4.93 | 899 | 5.16 | 919 | 5.41 | 938 | 5.66 | 956 | 5.90 |
| 7200 | 819 | 4.76 | 840 | 5.00 | 859 | 5.23 | 879 | 5.47 | 898 | 5.72 | 916 | 5.96 | 933 | 6.19 | 952 | 6.46 | 968 | 6.70 | 987 | 6.97 |
| 8000 | 863 | 5.87 | 881 | 6.12 | 900 | 6.38 | 918 | 6.64 | 936 | 6.90 | 954 | 7.16 | 971 | 7.42 | 988 | 7.69 | — | — | — | — |
| 8800 | 909 | 7.19 | 927 | 7.46 | 944 | 7.73 | 961 | 8.01 | 978 | 8.29 | 994 | 8.56 | — | — | — | — | — | — | — | — |
| 9600 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | **7.5-HP Oversized Motor & Drive** | | | | | | | | | | | | | | | | | | | |

**Notes:**

1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & Low Static Drive Accessory Fan Speed (RPM), reference Table 56, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.
   *For 4000, 4800 and 5600 CFM, unit applications below 320 CFM/Ton are only applicable to TCD models only (No Gas Heat). See below for restrictions.

- Electric heaters restricted on applications below 320 CFM/Ton.
- Dehumidification (Hot Gas Reheat) or TXV with Frostat and Crankcase Heaters are required on applications below 320 CFM/Ton.

(a) Field Supplied Motor Sheave IVP34 Required. Field Supplied Belt may be necessary.
(b) 5-HP Standard Motor & High Static Drive.
(c) 7.5-HP Standard Motor with Field Supplied Motor Sheave IPV50 required. Field Supplied Belt may be necessary.

**Table 51. Evaporator Fan Performance 20 Tons with Gas Heat YC*241 Standard or TXV Refrigeration System Downflow or Horizontal**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 |
| | **5-HP Standard Motor & Field Supplied Low Static Drive[a]** | | | | | | | | | | | | **5-HP Standard Motor & Drive** | | | | | | | |
| 6400 | 527 | 1.76 | 558 | 1.96 | 586 | 2.13 | 611 | 2.28 | 635 | 2.45 | 660 | 2.62 | 684 | 2.82 | 709 | 3.02 | 733 | 3.22 | 756 | 3.41 |
| 7200 | 585 | 2.44 | 614 | 2.67 | 640 | 2.88 | 664 | 3.06 | 686 | 3.24 | 708 | 3.42 | 729 | 3.61 | 751 | 3.82 | 773 | 4.04 | 795 | 4.26 |
| 8000 | 643 | 3.29 | 670 | 3.54 | 965 | 3.79 | 718 | 4.01 | 739 | 4.21 | 759 | 4.41 | 778 | 4.61 | 798 | 4.82 | 817 | 5.04 | 837 | 5.27 |
| 8800 | 702 | 4.33 | 727 | 4.59 | 750 | 4.87 | 772 | 5.13 | 792 | 5.37 | 811 | 5.60 | 830 | 5.81 | 848 | 6.03 | 866 | 6.25 | 883 | 6.48 |
| 9600 | 761 | 5.56 | 784 | 5.85 | 807 | 6.15 | 827 | 6.45 | 847 | 6.73 | 865 | 6.99 | 883 | 7.23 | 900 | 7.46 | 916 | 7.70 | 933 | 7.94 |
| | **7.5-HP Oversized Motor w/Field Supplied Sheave[b]** | | | | | | | | | | | | **7.5-HP Oversized Motor & Drive** | | | | | | | |

**Continued**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 & Drive** | | | | | | **5-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | | | | | |
| 6400 | 779 | 3.62 | 802 | 3.83 | 852 | 4.05 | 846 | 4.27 | 868 | 4.49 | 889 | 4.72 | 909 | 4.96 | 929 | 5.20 | 949 | 5.45 | 968 | 5.71 |
| 7200 | 816 | 4.49 | 837 | 4.71 | 857 | 4.94 | 878 | 5.17 | 898 | 5.41 | 919 | 5.65 | 938 | 5.90 | 958 | 6.14 | 978 | 6.38 | 999 | 6.63 |
| 8000 | 857 | 5.57 | 876 | 5.76 | 896 | 6.01 | 915 | 6.26 | 933 | 6.51 | 952 | 6.76 | 970 | 7.01 | 989 | 7.26 | — | — | — | — |
| 8800 | 901 | 6.73 | 919 | 6.98 | 937 | 7.25 | 955 | 7.52 | 973 | 7.80 | 991 | 8.07 | — | — | — | — | — | — | — | — |
| 9600 | 949 | 8.19 | 965 | 8.44 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | **7.5-HP Oversized Motor & Drive** | | | | | | | | | | | | | | | | | | | |

**Notes:**
1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & Low Static Drive Accessory Fan Speed (RPM), reference Table 56, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.

(a) Field Supplied Fan Sheave BK190 required. Field Supplied Belt may be necessary.
(b) Motor Sheave IVP50 required. Field Supplied Belt may be necessary.

### Table 52. Evaporator Fan Performance 20 Tons with Gas Heat Y*D241 Dehumidification (Hot Gas Reheat Option) Downflow

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 |
| | **5-HP Standard Motor & Field Supplied Low Static Drive[a]** | | | | | | | | | | **5-HP Standard Motor & Drive** | | | | | | | | | |
| 6400 | 546 | 1.92 | 576 | 2.14 | 603 | 2.33 | 629 | 2.51 | 654 | 2.70 | 677 | 2.89 | 700 | 3.08 | 722 | 3.28 | 745 | 3.48 | 767 | 3.67 |
| 7200 | 607 | 2.67 | 634 | 2.92 | 659 | 3.16 | 683 | 3.36 | 707 | 3.56 | 728 | 3.77 | 749 | 3.98 | 770 | 4.20 | 791 | 4.42 | 811 | 4.64 |
| 8000 | 668 | 3.60 | 693 | 3.87 | 717 | 4.15 | 739 | 4.40 | 761 | 4.63 | 781 | 4.84 | 801 | 5.07 | 821 | 5.31 | 840 | 5.55[b] | 858 | 5.80 |
| 8800 | 730 | 4.74 | 753 | 5.03 | 775 | 5.33 | 796 | 5.62 | 816 | 5.90 | 836 | 6.14 | 855 | 6.39 | 873 | 6.63 | 891 | 6.89 | 909 | 7.16 |
| 9600 | 792 | 6.10 | 814 | 6.41 | 834 | 6.73 | 854 | 7.06 | 873 | 7.38 | 891 | 7.68 | 909 | 7.95 | 927 | 8.20 | 944 | 8.47 | — | — |
| | **7.5-HP Oversized Motor & Field Supplied Low Static Drive[c]** | | | | | | | | | | | | | | | | **7.5-HP Oversized Motor & Drive** | | | |

**Continued**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 & Drive** | | | | | | **5-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | | | | | |
| 6400 | 789 | 3.88 | 809 | 4.08 | 830 | 4.30 | 851 | 4.53 | 871 | 4.75 | 890 | 4.98 | 910 | 5.24 | 929 | 5.50 | 948 | 5.75 | 965 | 6.00 |
| 7200 | 830 | 4.86 | 850 | 5.09 | 870 | 5.31 | 888 | 5.54 | 908 | 5.78 | 926 | 6.02 | 944 | 6.25 | 962 | 6.51 | 980 | 6.76 | 998 | 7.04 |
| 8000 | 877 | 6.04 | 895 | 6.28 | 913 | 6.53 | 930 | 6.77 | 947 | 7.02 | 965 | 7.28 | 983 | 7.53 | 999 | 7.78 | 1016 | 8.05 | 1033 | 8.32[d] |
| 8800 | 925 | 7.42 | 942 | 7.68 | 959 | 7.96 | 975 | 8.22 | 992 | 8.50 | — | — | — | — | — | — | — | — | — | — |
| 9600 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | **7.5-HP Oversized Motor & Drive** | | | | | | | | | | | | | | | | | | | |

**Notes:**
1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & Low Static Drive Accessory Fan Speed (RPM), reference Table 56, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.

(a) Field Supplied Fan Sheave BK190 required. Field Supplied Belt may be necessary.
(b) 5-HP Standard Motor & High Static Drive Accessory.
(c) Motor Sheave IVP50 required. Field Supplied Belt may be necessary.
(d) 7.5-HP Oversized Motor & Field Supplied High Static Drive.

**Table 53. Evaporator Fan Performance 25 Tons TC*301C Standard Refrigeration or TXV System Downflow or Horizontal**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 & Field Supplied Extra Low Static Drive** | | | | | | | | | | **7.5-HP Standard Motor & Low Static Drive Accessory** | | | | | | | | | |
| 5000* | — | — | — | — | — | — | — | — | — | — | 576 | 1.56 | 606 | 1.71 | 635 | 1.88 | 663 | 2.05 | 690 | 2.22 |
| 6500* | — | — | — | — | 576 | 2.11 | 601 | 2.27 | 625 | 2.43 | 649 | 2.59 | 674 | 2.78 | 698 | 2.97 | 722 | 3.18 | 746 | 3.38 |
| 7000* | — | — | 579 | 2.32 | 608 | 2.54 | 633 | 2.73 | 656 | 2.89 | 678 | 3.06 | 700 | 3.25 | 723 | 3.44 | 745 | 3.65 | 768 | 3.87 |
| 7500* | 582 | 2.59 | 611 | 2.78 | 640 | 3.02 | 665 | 3.24 | 687 | 3.43 | 708 | 3.61 | 729 | 3.79 | 749 | 3.98 | 770 | 4.19 | 792 | 4.41 |
| 8000 | 616 | 3.07 | 645 | 3.31 | 672 | 3.56 | 696 | 3.80 | 719 | 4.02 | 739 | 4.22 | 759 | 4.41 | 778 | 4.60 | 797 | 4.81 | 817 | 5.03 |
| 8500 | 650 | 3.66 | 678 | 3.90 | 704 | 4.16 | 728 | 4.43 | 750 | 4.68 | 771 | 4.90 | 790 | 5.10 | 808 | 5.31 | 826 | 5.52 | 844 | 5.74 |
| 9000 | 685 | 4.31 | 712 | 4.56 | 737 | 4.83 | 760 | 5.12 | 782 | 5.39 | 802 | 5.65 | 821 | 5.88 | 839 | 6.09 | 856 | 6.30 | 873 | 6.53 |
| 9500 | 721 | 5.04 | 746 | 5.30 | 770 | 5.58 | 792 | 5.88 | 814 | 6.18 | 834 | 6.46 | 853 | 6.72 | 870 | 6.96 | 887 | 7.18 | 903 | 7.41 |
| 10000 | 756 | 5.85 | 780 | 6.12 | 803 | 6.41 | 825 | 6.72 | 846 | 7.04 | 866 | 7.35 | 884 | 7.64 | 902 | 7.90 | 918 | 8.14 | 934 | 8.38 |
| 10500 | 791 | 6.74 | 814 | 7.03 | 836 | 7.33 | 858 | 7.64 | 878 | 7.98 | 898 | 8.31 | 916 | 8.62 | — | — | — | — | — | — |
| 11000 | 827 | 7.71 | 849 | 8.02 | 870 | 8.33 | 891 | 8.63 | — | — | — | — | — | — | — | — | — | — | — | — |
| | **7.5-HP Standard Motor & Drive** | | | | | | | | **7.5-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | | | |

**Continued**

| | External Static Pressure (Inches of Water) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | |
| CFM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | **7.5-HP Standard Motor & Drive** | | | | | | | | | |
| 5000* | 716 | 2.41 | 741 | 2.60 | 765 | 2.80 | 789 | 3.00 | 812 | 3.20 |
| 6500* | 769 | 3.59 | 792 | 3.80 | 814 | 4.01 | 836 | 4.22 | 857 | 4.44 |
| 7000* | 790 | 4.09 | 812 | 4.31 | 833 | 4.53 | 854 | 4.76 | 875 | 4.99 |
| 7500* | 813 | 4.65 | 833 | 4.88 | 854 | 5.12 | 874 | 5.36 | 894 | 5.59 |
| 8000 | 837 | 5.26 | 857 | 5.51 | 876 | 5.76 | 896 | 6.01 | 915 | 6.26 |
| 8500 | 863 | 5.97 | 881 | 6.21 | 900 | 6.46 | 919 | 6.73 | 937 | 6.99 |
| 9000 | 890 | 6.76 | 908 | 7.00 | 925 | 7.25 | 943 | 7.52 | 961 | 7.79 |
| 9500 | 919 | 7.64 | 936 | 7.88 | 952 | 8.13 | 969 | 8.40 | 985 | 8.67 |
| 10000 | 949 | 8.62 | — | — | — | — | — | — | — | — |
| 10500 | — | — | — | — | — | — | — | — | — | — |
| 11000 | — | — | — | — | — | — | — | — | — | — |
| | **7.5-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | |

**Notes:**
1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & Low Static Drive Accessory Fan Speed (RPM), reference Table 56, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. 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.

*****For 5000, 6500, 7000 and 7500 CFM, unit applications below 320 CFM/Ton are only applicable to TCD models only (No Gas Heat).

See below for restrictions:
- Electric heaters restricted on applications below 320 CFM/Ton.
- Dehumidification (Hot Gas Reheat) or TXV with Frostat and Crankcase Heaters are required on applications below 320 CFM/Ton.

**Table 54. Evaporator Fan Performance 25 Tons with Gas Heat YC*301C Standard Refrigeration or TXV System Downflow or Horizontal**

| | External Static Pressure (Inches of Water) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .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 Accessory** | | | | | | | | | | **7.5-HP Standard Motor Drive** | | | | | | | | | |
| 8000 | 643 | 3.29 | 670 | 3.54 | 695 | 3.79 | 718 | 4.01 | 739 | 4.21 | 759 | 4.41 | 778 | 4.61 | 798 | 4.82 | 817 | 5.04 | 837 | 5.27 |
| 8500 | 680 | 3.92 | 705 | 4.18 | 729 | 4.44 | 752 | 4.69 | 772 | 4.92 | 792 | 5.13 | 810 | 5.33 | 829 | 5.55 | 847 | 5.77 | 865 | 6.00 |
| 9000 | 717 | 4.61 | 741 | 4.89 | 764 | 5.17 | 786 | 5.44 | 806 | 5.69 | 825 | 5.92 | 843 | 6.14 | 861 | 6.36 | 878 | 6.59 | 895 | 6.83 |
| 9500 | 754 | 5.39 | 777 | 5.68 | 799 | 5.98 | 820 | 6.27 | 840 | 6.55 | 859 | 6.80 | 876 | 7.04 | 893 | 7.27 | 910 | 7.50 | 926 | 7.74 |
| 10000 | 791 | 6.26 | 813 | 6.56 | 835 | 9.87 | 855 | 7.18 | 874 | 7.48 | 893 | 7.76 | 910 | 8.02 | 926 | 8.27 | 942 | 8.51 | — | — |
| 10500 | 828 | 7.21 | 850 | 7.52 | 870 | 7.85 | 890 | 8.18 | 909 | 8.50 | — | — | — | — | — | — | — | — | — | — |
| 11000 | 866 | 8.26 | 886 | 8.59 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | | | | | **7.5-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | | | | | | | |

Continued

| | External Static Pressure (Inches of Water) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | |
| CFM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | **7.5-HP Standard Motor & Drive** | | | | | | | | | |
| 8000 | 857 | 5.51 | 876 | 5.76 | 896 | 6.01 | 815 | 6.26 | 933 | 6.51 |
| 8500 | 884 | 6.24 | 903 | 6.50 | 921 | 6.76 | 940 | 7.03 | 958 | 7.30 |
| 9000 | 913 | 7.07 | 930 | 7.32 | 948 | 7.59 | 965 | 7.86 | 983 | 8.15 |
| 9500 | 943 | 7.99 | 959 | 8.25 | 976 | 8.51 | — | — | — | — |
| 10000 | — | — | — | — | — | — | — | — | — | — |
| 10500 | — | — | — | — | — | — | — | — | — | — |
| 11000 | — | — | — | — | — | — | — | — | — | — |
| | **7.5-HP Standard Motor & High Static Drive Accessory** | | | | | | | | | |

**Notes:**
1. For Standard Evaporator Fan Speed (RPM), reference Table 55, p. 85.
2. For Standard Motor & Low Static Drive Accessory Fan Speed (RPM), reference Table 56, p. 85.
3. For Oversized Evaporator Fan Speed (RPM), reference Table 58, p. 85.
4. Fan motor heat (MBH) = 3.15 x Fan BHP.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to Table 59, p. 86 to determine additional static pressure drop due to other options/accessories.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

**Table 55. Standard Motor & Drive/Fan Speed (Rpm)**

| Tons | Unit Model Number | 6 Turns Open | 5 Turns Open | 4 Turns Open | 3 Turns Open | 2 Turns Open | 1 Turn Open | Closed |
|---|---|---|---|---|---|---|---|---|
| 12½ | T/YC*150D3,4,W, YC*151C3,4,W | 640 | 680 | 720 | 760 | 800 | 840 | N/A |
| | T/YC*150DK | 705 | 756 | 806 | 857 | 907 | 957 | N/A |
| 15 | T/YC*180B3,4,W | 679 | 721 | 764 | 806 | 849 | 891 | N/A |
| | T/YC*180BK | N/A | 680 | 733 | 785 | 837 | 889 | 941 |
| | T/YC*181C3,4,W | 560 | 600 | 640 | 680 | 720 | 760 | N/A |
| 17½ | T/YC*210C3,4,W | 869 | 923 | 978 | 1032 | 1087 | 1141 | N/A |
| | T/YC*210CK | 869 | 324 | 978 | 1032 | 1087 | 1141 | N/A |
| | T/YC*211C3,4,W | 615 | 659 | 703 | 747 | 791 | 835 | N/A |
| 20 | T/YC*240B3,4,W, YC*241C3,4,W | 615 | 659 | 703 | 747 | 791 | 835 | N/A |
| | T/YC*240BK | 590 | 627 | 664 | 701 | 738 | 775 | N/A |
| 25 | T/YC*300B3,4,W, YC*301C3,4,W | 705 | 742 | 779 | 817 | 854 | 891 | N/A |
| | T/YC*300BK | 701 | 738 | 775 | 812 | 849 | 886 | N/A |

**Note:** Factory set at 3 turns open.

**Table 56. Standard Motor & Low Static Fan Drive**

| Tons | Unit Model Number | 6 Turns Open | 5 Turns Open | 4 Turns Open | 3 Turns Open | 2 Turns Open | 1 Turn Open | Closed |
|---|---|---|---|---|---|---|---|---|
| 17½ | T/YC*210C3,4,W | 705 | 755 | 806 | 856 | 907 | 957 | N/A |
| 25 | T/YC*300B3,4,W,301C3,4,W | 594 | 631 | 668 | 705 | 742 | 779 | N/A |

**Table 57. Standard Motor & High Static Drive Accessory Sheave/Fan Speed (Rpm)**

| Tons | Unit Model Number | 6 Turns Open | 5 Turns Open | 4 Turns Open | 3 Turns Open | 2 Turns Open | 1 Turn Open | Closed |
|---|---|---|---|---|---|---|---|---|
| 12½ | T/YC*151C3,4,W | 807 | 857 | 908 | 958 | 1009 | 1059 | N/A |
| 15 | T/YC*180B3,4,W | 806 | 849 | 891 | 934 | 976 | 1019 | N/A |
| | T/YC*181B3,4,W | 640 | 680 | 720 | 760 | 800 | 840 | N/A |
| 17½ | T/YC*211C3,4,W | 835 | 879 | 923 | 967 | 1011 | 1055 | N/A |
| 20 | T/YC*240B/241C3,4,W | 835 | 879 | 923 | 967 | 1011 | 1055 | N/A |
| 25 | T/YC*300B/301C3,4,W | 816 | 853 | 890 | 928 | 965 | 1002 | N/A |

**Table 58. Oversized Motor & Drive Fan Speed (Rpm)**

| Tons | Unit Model Number | Fan Sheave | 5 Turns Open | 4 Turns Open | 3 Turns Open | 2 Turns Open | 1 Turn Open | Closed |
|---|---|---|---|---|---|---|---|---|
| 12½ | T/YC*150D,151C3,4,W | 869 | 923 | 978 | 1032 | 1087 | 1141 | N/A |
| 15 | T/YC*180B3,4,W | 806 | 856 | 907 | 957 | 1008 | 1058 | N/A |
| | T/YC*181C3,4,W | 705 | 755 | 806 | 856 | 907 | 957 | N/A |
| 17½ | T/YC*210C3,4,W | 949 | 1008 | 1068 | 1127 | 1187 | 1246 | N/A |
| | T/YC*211C3,4,W | 816 | 853 | 890 | 928 | 965 | 1002 | N/A |
| 20 | T/YC*240B3,4,W, YC*241C3,4,W | 816 | 853 | 890 | 928 | 965 | 1002 | N/A |

**Table 59. Static Pressure Drop Through Accessories (Inches Water Column)**

| Tons | Unit Model Number | CFM | Standard Filters[c] | Through Reheat Coil | 2" Pleated Filter[d] | Economizer with OA/RA Dampers[a] | | Electric Heater Accessory (kW)[b] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 100% OA | 100% RA | 5-12 | 14-27 | 36 | 54 | 72 |
| 12½ | T/Y*150D,T/YC*151C | **2500 | 0.02 | 0.01 | 0.03 | 0.07 | 0.01 | — | *** | *** | *** | — |
| | | 4000 | 0.05 | 0.03 | 0.08 | 0.19 | 0.02 | — | 0.03 | 0.03 | 0.04 | — |
| | | 5000 | 0.07 | 0.05 | 0.11 | 0.26 | 0.03 | — | 0.04 | 0.05 | 0.06 | — |
| | | 6000 | 0.10 | 0.06 | 0.15 | 0.33 | 0.04 | — | 0.06 | 0.07 | 0.09 | — |
| 15 | T/YC*180B | 4800 | 0.07 | — | 0.10 | 0.25 | 0.03 | — | 0.04 | 0.04 | 0.05 | — |
| | | 6000 | 0.10 | — | 0.15 | 0.33 | 0.04 | — | 0.06 | 0.07 | 0.08 | — |
| | | 7200 | 0.15 | — | 0.19 | 0.40 | 0.05 | — | 0.09 | 0.10 | 0.12 | — |
| | T/YCD181C | **3000 | 0.02 | 0.01 | 0.03 | 0.07 | 0.03 | — | *** | *** | *** | — |
| | | 4800 | 0.04 | 0.02 | 0.07 | 0.14 | 0.03 | — | 0.04 | 0.04 | 0.05 | — |
| | | 6000 | 0.06 | 0.03 | 0.10 | 0.20 | 0.04 | — | 0.06 | 0.07 | 0.08 | — |
| | | 7200 | 0.09 | 0.04 | 0.13 | 0.27 | 0.05 | — | 0.09 | 0.10 | 0.12 | — |
| | T/YCH181C | 4800 | 0.03 | — | 0.06 | 0.14 | 0.03 | — | 0.04 | 0.04 | 0.05 | — |
| | | 6000 | 0.05 | — | 0.09 | 0.20 | 0.04 | — | 0.06 | 0.07 | 0.08 | — |
| | | 7200 | 0.07 | — | 0.11 | 0.27 | 0.05 | — | 0.09 | 0.10 | 0.12 | — |
| 17½ | T/YC*210C | 5600 | 0.09 | — | 0.13 | 0.30 | 0.04 | — | — | 0.06 | 0.07 | — |
| | | 7000 | 0.14 | — | 0.18 | 0.39 | 0.05 | — | — | 0.10 | 0.11 | — |
| | | 8400 | 0.20 | — | 0.24 | 0.47 | 0.06 | — | — | 0.15 | 0.17 | — |
| | T/YCD211C | **3500 | 0.02 | — | 0.03 | 0.09 | 0.03 | — | — | *** | *** | *** |
| | | 5600 | 0.06 | — | 0.08 | 0.18 | 0.04 | — | — | 0.05 | 0.06 | 0.07 |
| | | 7000 | 0.09 | — | 0.11 | 0.26 | 0.04 | — | — | 0.08 | 0.09 | 0.11 |
| | | 8400 | 0.12 | — | 0.14 | 0.35 | 0.06 | — | — | 0.12 | 0.13 | 0.16 |
| | T/YCH211C | 5600 | 0.05 | — | 0.08 | 0.18 | 0.04 | — | — | 0.05 | 0.06 | 0.07 |
| | | 7000 | 0.07 | — | 0.11 | 0.26 | 0.04 | — | — | 0.08 | 0.09 | 0.11 |
| | | 8400 | 0.10 | — | 0.14 | 0.35 | 0.06 | — | — | 0.12 | 0.13 | 0.16 |
| 20 | T/YCD240B,241C | **4000 | 0.03 | 0.02 | 0.04 | 0.11 | 0.03 | — | — | *** | *** | *** |
| | | 6400 | 0.07 | 0.04 | 0.11 | 0.22 | 0.04 | — | — | 0.06 | 0.08 | 0.09 |
| | | 8000 | 0.11 | 0.05 | 0.15 | 0.32 | 0.05 | — | — | 0.10 | 0.12 | 0.14 |
| | | 9600 | 0.16 | 0.07 | 0.20 | 0.44 | 0.07 | — | — | 0.14 | 0.17 | 0.20 |
| | T/YCH240B,241C | 6400 | 0.06 | — | 0.10 | 0.22 | 0.04 | — | — | 0.06 | 0.08 | 0.09 |
| | | 8000 | 0.09 | — | 0.13 | 0.32 | 0.05 | — | — | 0.10 | 0.12 | 0.14 |
| | | 9600 | 0.13 | — | 0.17 | 0.44 | 0.07 | — | — | 0.14 | 0.17 | 0.20 |
| 25 | T/YCD300B,301C | **5000 | 0.04 | — | 0.06 | 0.15 | 0.03 | — | — | *** | *** | *** |
| | | 7000 | 0.09 | — | 0.13 | 0.26 | 0.04 | — | — | 0.08 | 0.10 | 0.11 |
| | | 9000 | 0.14 | — | 0.18 | 0.40 | 0.07 | — | — | 0.13 | 0.15 | 0.18 |
| | | 11000 | 0.21 | — | 0.25 | 0.57 | 0.10 | — | — | 0.18 | 0.22 | 0.26 |
| | T/YCH300B,301C | 7000 | 0.07 | — | 0.11 | 0.26 | 0.04 | — | — | 0.08 | 0.10 | 0.11 |
| | | 9000 | 0.11 | — | 0.15 | 0.40 | 0.07 | — | — | 0.13 | 0.15 | 0.18 |
| | | 11000 | 0.17 | — | 0.22 | 0.60 | 0.10 | — | — | 0.18 | 0.22 | 0.26 |

(a) OA = Outside Air and RA = Return Air.
(b) Nominal kW ratings at 240, 480, 600 volts.
(c) Tested with: 2" filters 12½-25 tons.
(d) Difference in pressure drop should be considered when utilizing optional 2" pleated filters.
* Indicates both downflow and horizontal units.
** For 2500, 3000, 3500, 4000, and 5000 CFM, unit applications below 320 CFM/Ton are only applicable to TCD models only (No Gas Heat). See below for restrictions.
***Heaters not permitted at airflows below 320 cfm/ton. Heaters only available on TC* units.

Unit applications below 320 CFM/Ton are only applicable to TCD models only (No Gas Heat).
See below for restrictions:
Electric heaters restricted on applications below 320 CFM/Ton.
Dehumidification (Hot Gas Reheat) or TXV with Frostat and Crankcase Heaters are required on applications below 320 CFM/Ton.

**Table 60. Gas Fired Heating Capacities**

| Tons | Unit Model Number | Heating Input MBH[a] | Heating Output MBH[b] | Air Temp. Rise, F |
|---|---|---|---|---|
| 12½ | YC*150D-L1, YC*151C-L1 | 150/100 | 122/81 | 10-40 |
| | YC*150D-H1,YC*151C-H1 | 250/175 | 203/142 | 25-55 |
| | YC*150D-V1, YC*151C-V1 | 350/75 | 284/56 | 35-65 |
| 15 | YC*180B-L1 | 250/175 | 203/142 | 25-55 |
| | YC*180B-H1,YC*181C-H1 | 350/250 | 284/203 | 35-65 |
| | YC*181C-L1 | 250/175 | 203/142 | 15-45 |
| | YC*180B-V1, YC*181C-V1 | 350/75 | 284/56 | 35-65 |
| 17½ | YC*210C-L1, YC*211C-L1 | 250/175 | 203/142 | 15-45 |
| | YC*210C-H1,YC*211C-H1 | 350/250 | 284/203 | 35-65 |
| | YC*210C-V1, YC*211C-V1 | 350/75 | 284/56 | 35-65 |
| 20 | YC*240B-L1, YC*241C-L1 | 250/175 | 203/142 | 15-45 |
| | YC*240B-H1, YC*241C-H1 | 400/300 | 324/243 | 25-55 |
| | YC*240B-V1, YC*241C-V1 | 350/75 | 284/56 | 35-65 |
| 25 | YC*300B-L1, YC*301C-L1 | 250/175 | 203/142 | 15-45 |
| | YC*300B-H1, YC*301C-H1 | 400/300 | 324/243 | 25-55 |
| | YC*300B-V1, YC*301C-V1 | 350/75 | 284/56 | 35-65 |

(a) For two stage heaters (input or output), Second stage is total heating capacity. Second Stage/First Stage.
(b) For two stage heaters (input or output), Second stage is total heating capacity. Second Stage/First Stage.

**Table 61. Auxiliary Electric Heat Capacity**

| Tons | Unit Model Number | Total[a] | | No. of Stages | Stage1 | | Stage 2 | |
|---|---|---|---|---|---|---|---|---|
| | | kW Input[b] | MBH Output | | kW Input | MBH Output | kW Input | MBH Output |
| 12½-15 | TC*150D3,D4,DW,DK TC*180B3,B4,BW,BK TC*151 or 181C3,C4,CW | 18.00 | 61.47 | 1 | 18.00 | 61.47 | — | — |
| | | 27.00[c] | 92.15 | 2 | 9.00 | 30.72 | 18.00 | 61.43 |
| | | 36.00 | 122.94 | 2 | 18.00 | 61.47 | 18.00 | 61.47 |
| | | 54.00 | 184.41 | 2 | 36.00 | 122.94 | 18.00 | 61.47 |
| 17½, 20, 25 | TC*210C3,C4,CW,CK TC*240,300B3,B4,BW,BK TC*211, 241, 301C3,C4,CW | 36.00 | 122.94 | 2 | 18.00 | 61.47 | 18.00 | 61.47 |
| | | 54.00 | 184.41 | 2 | 36.00 | 122.94 | 18.00 | 61.47 |
| | | 72.00[d] | 245.88 | 2 | 36.00 | 122.94 | 36.00 | 122.94 |

(a) Heaters are rated at 240v,380v,480v and 600v. For other than rated voltage, CAP= (voltage/rated voltage)$^2$ x rated cap.
(b) For all input/output categories, does not include fan power or heat.
(c) 27 kW heater can be used with TCD181C4, TCD211C4, TCD241C4 and TCD301C4 only. Cannot be used with oversized motor.
(d) Not available on TC*210C.
*Indicates both downflow and horizontal units.

**Table 62. Electric Heater Voltage Correction Factors (Applicable to Auxiliary Heat Capacity)**

| Nominal Voltage | Distribution Voltage | Capacity Multiplier |
|---|---|---|
| 240 | 208 | 0.75 |
| | 230 | 0.92 |
| | 240 | 1.00 |
| 480 | 440 | 0.84 |
| | 460 | 0.94 |
| | 480 | 1.00 |
| 600 | 540 | 0.81 |
| | 575 | 0.92 |
| | 600 | 1.00 |

**Table 63. Air Temperature Rise Across Electric Heaters (°F)**

| kW | Stages | 12½ Tons 5000 CFM Three Phase TC*150/151 | 15 Tons 6000 CFM Three Phase TC*180/181 | 17½ Tons 7000 CFM Three Phase TC*210/211 | 20 Tons 8000 CFM Three Phase TC*240/241 | 25 Tons 9000 CFM Three Phase TC*300/301 |
|---|---|---|---|---|---|---|
| 9.00 | 1 | — | — | — | — | — |
| 17.30 | 1 | — | — | — | — | — |
| 18.00 | 1 | 11.4 | 9.5 | — | — | — |
| 27.00 | 2 | — | 14.2** | 12.2[(a)]** | 10.7** | 9.5** |
| 36.00 | 2 | 22.8 | 19.0 | 16.3 | 14.2 | 12.6 |
| 54.00 | 2 | 34.1 | 28.5 | 24.4 | 21.3 | 19.0 |
| 72.00** | 2 | — | — | 32.5 | 28.5 | 25.3 |

**Notes:**
**1.** For minimum design airflow, see airflow performance table for each unit. To calculate temp rise at different airflow, use the following formula: Temp. rise across Electric Heater = kWx3414/1.08xCFM.

(a) Not available on TC*210 model.
* Indicates both downflow and horizontal units.
** 27 kW heater can be used with TCD181C4, TCD211C4, TCD241C4 and TCD301C4 only. Cannot be used with oversized motor.

**Table 64. Hot Gas Reheat Temperature Rise[a],[b]**

| Tons | SCFM | Leaving Evaporator Dry Bulb [F][c] | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **35** | **40** | **45** | **50** | **55** | **60** | **65** |
| 12½ | 2500 | 23.4 | 23.8 | 25.0 | 26.9 | 29.5 | 32.9 | 37.0 |
| | 3000 | 21.4 | 21.6 | 22.5 | 24.0 | 26.0 | 28.7 | 31.9 |
| | 3500 | 19.5 | 19.7 | 20.4 | 21.5 | 23.1 | 25.2 | 27.7 |
| | 4000 | 17.8 | 18.1 | 18.6 | 19.6 | 20.9 | 22.5 | 24.5 |
| | 4500 | 16.3 | 16.7 | 17.3 | 18.1 | 19.2 | 20.5 | 22.1 |
| | 5000 | 14.9 | 15.5 | 16.2 | 17.1 | 18.0 | 19.2 | 20.4 |
| | 5500 | 13.5 | 14.4 | 15.3 | 16.2 | 17.2 | 18.1 | 19.1 |
| | 6000 | 12.1 | 13.4 | 14.6 | 15.7 | 16.7 | 17.6 | 18.3 |
| **Tons** | **SCFM** | **35** | **40** | **45** | **50** | **55** | **60** | **65** |
| 15 | 3000 | 34.4 | 36.7 | 38.9 | 41.2 | 43.5 | 45.8 | 48.1 |
| | 3600 | 29.3 | 31.2 | 33.1 | 35.0 | 36.9 | 38.8 | 40.8 |
| | 4200 | 25.4 | 27.0 | 28.6 | 30.2 | 31.9 | 33.5 | 35.1 |
| | 4800 | 22.3 | 23.7 | 25.1 | 26.5 | 27.9 | 29.3 | 30.7 |
| | 5400 | 19.9 | 21.2 | 22.4 | 23.7 | 24.9 | 26.2 | 27.4 |
| | 6000 | 18.0 | 19.1 | 20.3 | 21.4 | 22.5 | 23.7 | 24.8 |
| | 6600 | 16.4 | 17.5 | 18.6 | 19.6 | 20.7 | 21.7 | 22.8 |
| | 7200 | 15.1 | 16.1 | 17.1 | 18.1 | 19.1 | 20.1 | 21.1 |
| **Tons** | **SCFM** | **35** | **40** | **45** | **50** | **55** | **60** | **65** |
| 20 | 4000 | 22.0 | 22.5 | 23.6 | 25.4 | 27.7 | 30.6 | 34.0 |
| | 4800 | 19.1 | 19.8 | 20.9 | 22.3 | 24.0 | 26.1 | 28.5 |
| | 5600 | 16.6 | 17.4 | 18.4 | 19.5 | 20.9 | 22.4 | 24.0 |
| | 6400 | 14.7 | 15.5 | 16.3 | 17.2 | 18.2 | 19.3 | 20.6 |
| | 7200 | 13.5 | 14.1 | 14.7 | 15.4 | 16.2 | 17.0 | 17.9 |
| | 8000 | 12.9 | 13.2 | 13.7 | 14.2 | 14.8 | 15.5 | 16.2 |
| | 8800 | 12.5 | 12.9 | 13.3 | 13.7 | 14.2 | 14.8 | 15.4 |
| | 9600 | 12.4 | 12.8 | 13.1 | 13.5 | 13.9 | 14.5 | 15.0 |

(a) 70 deg OD Ambient Temperature.
(b) For units with the Dehumidification (Hot Gas Reheat) option.
(c) Temperature does not account for indoor fan heat.

# Controls

## ReliaTel™ Controlled Units

Zone Sensors are the building occupant's comfort control devices. They replace the conventional electro-mechanical thermostats. The following zone sensor options are available for Voyager units with ReliaTel control:

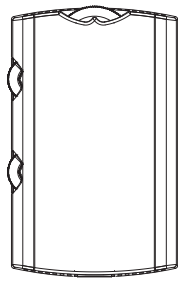
### Differential Enthalpy

Differential Enthalphy Replaces the standard dry bulb control with two enthalpy sensors that compare total heat content of the indoor air and outdoor air to determine the most efficient air source. This control option offers the highest level of comfort control, plus energy efficiency, available.

### Differential Pressure Switches

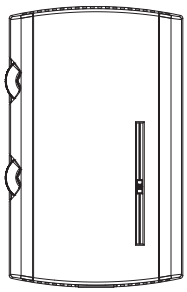
This factory or field-installed option allows individual fan failure and dirty filter indication. The fan failure switch will disable all unit functions and "flash" the Service LED on the zone sensor. The dirty filter switch will light the Service LED on the zone sensor and will allow continued unit operation.

### Manual Changeover



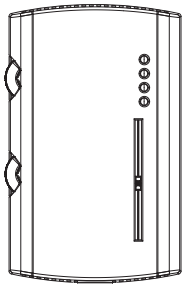
Heat, Cool or Off System Switch. Fan Auto or Off Switch. One temperature setpoint lever.

### Manual/Automatic Changeover



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

### Manual/Automatic Changeover



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.

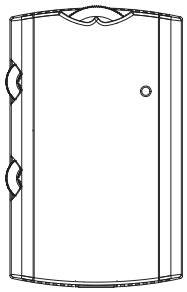
### RA Remote Sensor

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

### Room Remote Sensor

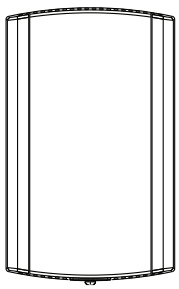
Space Remote Sensor which can be mounted on the wall to report/control from a remote location in the space.

### Manual/Automatic Changeover



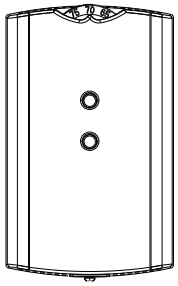
Auto, Heat, Cool or Off System Switch. Fan Auto or Off Switch. Two temperature setpoint levers.

### Remote Sensor



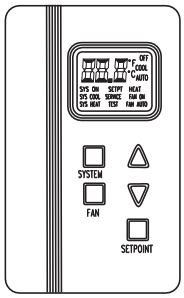
Sensor(s) available for all zone sensors to provide remote sensing capabilities.

### Integrated Comfort™ System



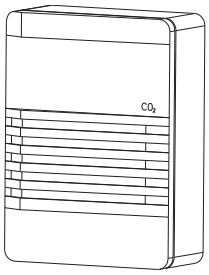
Sensor(s) available with optional temperature adjustment and override buttons to provide central control through a Trane Integrated Comfort™ system.

### Digital Display Zone Sensor



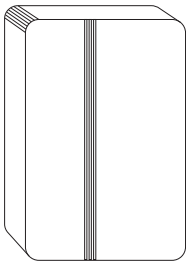

The Digital LCD (Liquid Crystal Display) zone sensor has the look and functionality of standard zone sensors. This sensor includes a digital display of set point adjustment and space temperature in F (Fahrenheit) or C (Celsius). Includes FAN and SYSTEM buttons (supports the service functions of the standard sensor). E-squared memory stores last programmed set points. Requires 24 VAC (Volts AC). This sensor should be utilized with ReliaTel™ controls.

### $CO_2$ Sensing



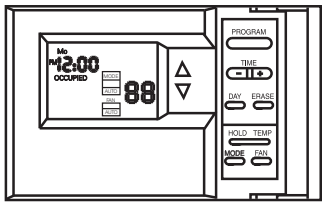

The $CO_2$ sensor shall have the ability to monitor space occupancy levels within the building by measuring the parts per million of $CO_2$ (Carbon Dioxide) in the air. As the $CO_2$ levels increase, the outside air damper modulates to meet the $CO_2$ space ventilation requirements. The $CO_2$ accessory shall be available as field installed.

### Humidity Sensor



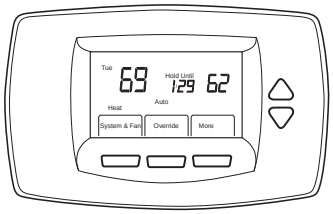
Field installed, wall-mounted or duct-mounted humidity sensor is used to control activation of the hot gas reheat dehumidification option. The humidity sensor can be set for humidity levels between 40% and 60% relative humidity by adjusting the ReliaTel Options Module.

## Programmable Night Setback



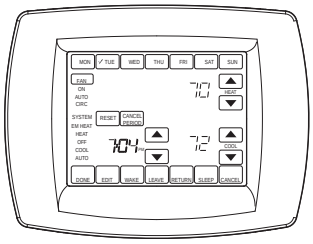

Auto or manual changeover with seven-day programming. Keyboard selection of Heat, Cool, Fan, Auto, or On. All programmable sensors have System On, Heat, Cool, Service LED/indicators as standard. Night Setback Sensors have one (1) Occupied, one (1) Unoccupied, and two (2) Override programs per day.

## Digital Display Programmable Thermostat (2H/2C)



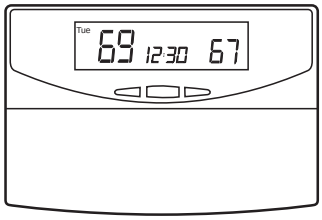

Two Heat/Two Cool digital display thermostat. 7-day programmable stat with night setback shall be available.

## Touchscreen Programmable Thermostat (2H/2C)



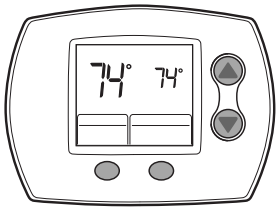

Two Heat/Two Cool programmable thermostat with touch screen digital display. Menu-driven programming. Effortless set-up. Program each day separately with no need to copy multiple days. All programming can be done on one screen. Easy to read and use. Large, clear backlit digital display.

## Digital Display Programmable Thermostat with Built-In Relative Humidity Sensing (3H/2C)




Three Heat/Two Cool digital display thermostat with built-in humidity control and display. This thermostat combines both humidity and dry bulb into one. Fully programmable with night setback.

### Digital Display Thermostat (3H/2C)




Three Heat, Two Cool digital display thermostat. Easy access battery replacement. Flip-out door for easy battery replacement without removing or disassembling the thermostat.

## Remote Potentiometer

Minimum position setting of economizer can be remotely adjusted with this accessory.

## Trane Communication Interface (TCI)

This factory or field-installed micro-processor interface allows the unit to communicate to Trane's Integrated Comfort™ system.

## Economizer Controls

The standard equipment offering is a fixed dry bulb changeover control. In addition, there are two optional controls, Enthalpy and Differential Enthalpy Control.

## Enthalpy Control

Replaces the dry bulb control with a wet bulb changeover controller which has a fully adjustable set point. Enthalpy control offers a higher level of comfort control, along with energy savings potential, than the standard dry bulb control. This is due to the additional wet bulb sensing capability.

# Electrical Data

**Table 65. Unit Wiring with Gas Heat or Cooling (No Electric Heat)**

| Tons | Unit Model Number | Unit Operating Voltage Range | Standard Indoor Fan Motor | | Oversize Indoor Fan Motor | |
|---|---|---|---|---|---|---|
| | | | Minimum Circuit Ampacity[a] | Maximum Fuse Size or Maximum Circuit Breaker | Minimum Circuit Ampacity | Maximum Fuse Size or Maximum Circuit Breaker |
| 12½ | T/YC*150D3 | 187-253 | 63 | 80 | 69 | 80 |
| | T/YC*150D4 | 414-506 | 33 | 40 | 36 | 40 |
| | T/YC*150DW | 518-633 | 26 | 30 | 28 | 35 |
| | T/YC*150DK | 342-418 | 43 | 50 | — | — |
| 15 | T/YC*180B3 | 187-253 | 78 | 90 | 84 | 100 |
| | T/YC*180B4 | 414-506 | 39 | 50 | 42 | 50 |
| | T/YC*180BW | 517-633 | 31 | 40 | 33 | 40 |
| | T/YC*180BK | 342-418 | 50 | 60 | — | — |
| 17½ | T/YC*210C3 | 187-253 | 88 | 100 | 96 | 125 |
| | T/YC*210C4 | 414-506 | 44 | 50 | 47 | 60 |
| | T/YC*210CW | 517-633 | 35 | 45 | 38 | 45 |
| | T/YC*210CK | 342-418 | 57 | 70 | — | — |
| 20 | T/YC*240B3 | 187-253 | 100 | 125 | 107 | 125 |
| | T/YC*240B4 | 414-506 | 50 | 60 | 54 | 60 |
| | T/YC*240BW | 517-633 | 40 | 45 | 43 | 50 |
| | T/YC*240BK | 342-418 | 65 | 80 | — | — |
| 25 | T/YC*300B3 | 187-253 | 118 | 150 | — | — |
| | T/YC*300B4 | 414-506 | 58 | 70 | — | — |
| | T/YC*300BW | 517-633 | 46 | 50 | — | — |
| | T/YC*300BK | 342-418 | 70 | 80 | — | — |

(a) For Standard and Oversized Indoor Fan Motor, values do not include power exhaust accessory.
* Indicates both downflow and horizontal units.

**Table 66. Unit Wiring with Electric Heat (Single Point Connection) — Standard and Oversized Motor, Downflow & Horizontal**

| Tons | Unit Model Number | Heater Model Number | Heater kW Rating[a] | Control Stages | Standard Indoor Motor | | Oversize Indoor Motor | |
|---|---|---|---|---|---|---|---|---|
| | | | | | MCA | Max Fuse Size or Max Circuit Breaker | MCA | Max Fuse Size or Max Circuit Breaker |
| **208/230 Volts Three Phase** | | | | | | | | |
| 12½ | TC*150D3 | AYDHTRK318/AYHHTRN318 | 13.5/18.0 | 1 | 63/68 | 80/80 | 69/76 | 80/80 |
| | | AYDHTRK336/AYHHTRP336 | 27.0/36.0 | 2 | 108/122 | 110/125 | 115/130 | 125/150 |
| | | AYDHTRK354/AYHHRTP354 | 40.5/54.0 | 2 | 154/176 | 175/200 | 162/184 | 175/200 |
| 15 | TC*180B3 | AYDHTRK318/AYHHTRN318 | 13.5/18.0 | 1 | 78/78 | 100/100 | 84/84 | 100/100 |
| | | AYDHTRK336/AYHHTRP336 | 27.0/36.0 | 2 | 108/122 | 110/125 | 115/130 | 125/150 |
| | | AYDHTRK354/AYHHTRP354 | 40.5/54.0 | 2 | 154/176 | 175/200 | 162/184 | 175/200 |
| 17½ | TC*210C3 | AYDHTRL336/AYHHTRQ336 | 27.0/36.0 | 2 | 115/130 | 125/150 | 125/139 | 125/150 |
| | | AYDHTRL354/AYHHTRQ354 | 40.5/54.0 | 2 | 162/184 | 175/200 | 171/193 | 175/200 |
| 20 | TC*240B3 | AYDHTRL336/AYHHTRN336 | 27.0/36.0 | 2 | 115/130 | 125/150 | 125/139 | 125/150 |
| | | AYDHTRL354/AYHHTRN354 | 40.5/54.0 | 2 | 162/184 | 175/200 | 171/193 | 175/200 |
| | | AYDHTRK372/AYHHTRN372 | 54.0/72.0 | 2 | 209/238 | 225/250 | 218/247 | 225/250 |
| 25 | TC*300B3 | AYDHTRL336/AYHHTRN336 | 27.0/36.0 | 2 | 125/139 | 150/150 | — | — |
| | | AYDHTRL354/AYHHTRN354 | 40.5/54.0 | 2 | 171/193 | 175/200 | — | — |
| | | AYDHTRK372/AYHHTRN372 | 54.0/72.0 | 2 | 218/247 | 225/250 | — | — |
| **460 Volts Three Phase** | | | | | | | | |
| 12½ | TC*150D4 | AYDHTRL418/AYHHTRN418 | 18.0 | 1 | 34 | 40 | 37 | 40 |
| | | AYDHTRK436/AYHHTRP436 | 36.0 | 2 | 61 | 70 | 64 | 70 |
| | | AYDHTRK454/AYHHTRP454 | 54.0 | 2 | 88 | 90 | 91 | 100 |
| 15 | TC*180B4 | AYDHTRL418.AYHHTRN418 | 18.0 | 1 | 39 | 50 | 42 | 50 |
| | | AYDHTRK436/AYHHTRP436 | 36.0 | 2 | 61 | 70 | 64 | 70 |
| | | AYDHTRK454/AYHHTRP454 | 54.0 | 2 | 88 | 90 | 91 | 100 |
| 17½ | TC*210C4 | AYDHTRL436/AYHHTRQ436 | 36.0 | 2 | 64 | 70 | 68 | 70 |
| | | AYDHTRL454/AYHHTRQ454 | 54.0 | 2 | 91 | 100 | 95 | 100 |
| 20 | TC*240B4 | AYDHTRL436/AYHHTRN436 | 36.0 | 2 | 64 | 70 | 68 | 70 |
| | | AYDHTRL454/AYHHTRN454 | 54.0 | 2 | 91 | 100 | 95 | 100 |
| | | AYDHTRK472/AYHHTRN472 | 72.0 | 2 | 118 | 125 | 123 | 125 |
| 25 | TC*300B4 | AYDHTRL436/AYHHTRN436 | 36.0 | 2 | 68 | 70 | — | — |
| | | AYDHTRL454/AYHHTRN454 | 54.0 | 2 | 95 | 100 | — | — |
| | | AYDHTRK472/AYHHTRN472 | 72.0 | 2 | 123 | 125 | — | — |
| **575 Volts Three Phase** | | | | | | | | |
| 12½ | TC*150DW | AYDHTRKW18/AYHHTRNW18 | 18.0 | 1 | 27 | 30 | 30 | 35 |
| | | AYDHTRMW36/AYHHTRPW36 | 36.0 | 2 | 49 | 50 | 51 | 60 |
| | | AYDHTRKW54/AYHHTRPW54 | 54.0 | 2 | 70 | 70 | 73 | 80 |
| 15 | TC*180BW | AYDHTRKW18/AYHHTRNW18 | 18.0 | 1 | 31 | 40 | 33 | 40 |
| | | AYDHTRMW36/AYHHTRPW36 | 36.0 | 2 | 49 | 50 | 51 | 60 |
| | | AYDHTRKW54/AYHHTRPW54 | 54.0 | 2 | 70 | 70 | 73 | 80 |
| 17½ | TC*210CW | AYDHTRMW36/AYHHTRPW36 | 36.0 | 2 | 51 | 60 | 55 | 60 |
| | | AYDHTRLW54/AYHHTRQW54 | 54.0 | 2 | 73 | 80 | 77 | 80 |
| 20 | TC*240BW | AYDHTRMW36/AYHHTRMW36 | 36.0 | 2 | 51 | 60 | 55 | 60 |
| | | AYDHTRLW54/AYHHTRNW54 | 54.0 | 2 | 73 | 80 | 77 | 80 |
| | | AYDHTRKW72/AYHHTRNW72 | 72.0 | 2 | 95 | 100 | 98 | 100 |
| 25 | TC*300BW | AYDHTRMW36/AYHHTRMW36 | 36.0 | 2 | 55 | 60 | — | — |
| | | AYDHTRLW54/AYHHTRNW54 | 54.0 | 2 | 77 | 80 | — | — |
| | | AYDHTRKW72/AYHHTRNW72 | 72.0 | 2 | 98 | 100 | — | — |

**Table 66. (continued) Unit Wiring with Electric Heat (Single Point Connection) — Standard and Oversized Motor, Downflow & Horizontal**

| Tons | Unit Model Number | Heater Model Number | Heater kW Rating | Control Stages | Standard Indoor Motor | | Oversize Indoor Motor | |
|---|---|---|---|---|---|---|---|---|
| | | | | | MCA | Max Fuse Size or Max Circuit Breaker | MCA | Max Fuse Size or Max Circuit Breaker |
| **380 Volts Three Phase** | | | | | | | | |
| 12½ | TC*150DK | AYDHTRL418/AYHHTRL418 | 11.3 | 1 | 43 | 50 | — | — |
| | | AYDHTRK436/AYHHTRK436 | 22.6 | 2 | 55 | 60 | — | — |
| | | AYDHTRK454/AYHHTRK454 | 33.8 | 2 | 76 | 80 | — | — |
| 15 | TC*180BK | AYDHTRL418/AYHHTRL418 | 11.3 | 1 | 50 | 60 | — | — |
| | | AYDHTRK436/AYHHTRK436 | 22.6 | 2 | 55 | 60 | — | — |
| | | AYDHTRK454/AYHHTRK454 | 33.8 | 2 | 76 | 80 | — | — |
| 17½ | TC*210CK | AYDHTRL436/AYHHTRL436 | 22.6 | 2 | 60 | 70 | — | — |
| | | AYDHTRL454/AYHHTRL454 | 33.8 | 2 | 81 | 90 | — | — |
| 20 | TC*240BK | AYDHTRL436/AYDHTRL436 | 22.6 | 2 | 65 | 80 | — | — |
| | | AYDHTRL454/AYDHTRL454 | 33.8 | 2 | 81 | 90 | — | — |
| | | AYDHTRK472/AYDHTRK472 | 45.1 | 2 | 103 | 110 | — | — |
| 25 | TC*300BK | AYDHTRL436/AYDHTRL436 | 22.6 | 2 | 70 | 80 | — | — |
| | | AYDHTRL454/AYDHTRL454 | 33.8 | 2 | 81 | 90 | — | — |
| | | AYDHTRK472/AYDHTRK472 | 45.1 | 2 | 103 | 100 | — | — |

(a) Heater kW ratings are at 380V for 380 unit.
* Indicates both downflow and horizontal units.

**Table 67. Electrical Characteristics — Compressor Motor and Condenser Motor — 60 Cycle**

| | | | Compressor Motors | | | | | | Condenser Fan Motors | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Amps[b] | | | | | Amps | |
| Tons | Unit Model Number | No. | Volts | Phase | HP[a] | RPM | RLA | LRA | No. | Phase | HP | FLA | LRA |
| 12½ | T/YC*150D3 | 2 | 208-230 | 3 | 6.00 | 3450 | 20.4 | 156 | 2 | 1 | .50 | 3.2 | 8.8 |
| | T/YC*150D4 | 2 | 460 | 3 | 6.00 | 3450 | 10.8 | 75 | 2 | 1 | .50 | 1.6 | 3.8 |
| | T/YC*150DW | 2 | 575 | 3 | 6.00 | 3450 | 8.3 | 54 | 2 | 1 | .50 | 1.3 | 3.2 |
| | T/YC*150DK | 2 | 380 | 3 | 6.0 | 3450 | 13.1 | 70 | 2 | 1 | .50 | 1.9 | 5.2 |
| 15 | T/YC*180B3 | 2 | 208-230 | 3 | 9.30/5.10 | 3450 | 31.9/20.7 | 253/128 | 2 | 1 | .50 | 3.2 | 8.8 |
| | T/YC*180B4 | 2 | 460 | 3 | 9.30/5.10 | 3450 | 16.3/10.0 | 113/63 | 2 | 1 | .50 | 1.6 | 3.8 |
| | T/YC*180BW | 2 | 575 | 3 | 9.30/5.10 | 3450 | 13.1/7.4 | 85/49 | 2 | 1 | .50 | 1.3 | 3.2 |
| | T/YC*180BK | 2 | 380 | 3 | 9.3/5.1 | 3450 | 19.7/12.1 | 125/64 | 2 | 1 | .50 | 1.9 | 5.2 |
| 17½ | T/YC*210C3 | 2 | 208-230 | 3 | 9.3/6.0 | 3450 | 31.5/20.8 | 253/156 | 2 | 1 | 1.00 | 5.5 | 18.3 |
| | T/YC*210C4 | 2 | 460 | 3 | 9.3/6.0 | 3450 | 15.9/10.0 | 113/75 | 2 | 1 | 1.00 | 2.9 | 9.3 |
| | T/YC*210CW | 2 | 575 | 3 | 9.3/6.0 | 3450 | 12.8/8.2 | 85/54 | 2 | 1 | 1.00 | 2.0 | 5.7 |
| | T/YC*210CK | 2 | 380 | 3 | 9.3/6.0 | 3450 | 19.2/12.1 | 125/70 | 2 | 1 | 1.00 | 3.5 | 8.5 |
| 20 | T/YC*240B3 | 2 | 208-230 | 3 | 9.30 | 3450 | 31.7 | 253 | 2 | 1 | 1.00 | 5.5 | 18.3 |
| | T/YC*240B4 | 2 | 460 | 3 | 9.30 | 3450 | 16.2 | 113 | 2 | 1 | 1.00 | 2.9 | 9.3 |
| | T/YC*240BW | 2 | 575 | 3 | 9.30 | 3450 | 13.0 | 85 | 2 | 1 | 1.00 | 2.0 | 5.7 |
| | T/YC*240BK | 2 | 380 | 3 | 9.3 | 3450 | 19.6 | 125 | 2 | 1 | 1.00 | 3.5 | 8.5 |
| 25 | T/YC*300B3 | 2 | 208-230 | 3 | 10.00 | 3450 | 36.6 | 278 | 2 | 1 | 1.00 | 5.5 | 18.3 |
| | T/YC*300B4 | 2 | 460 | 3 | 10.00 | 3450 | 17.9 | 124 | 2 | 1 | 1.00 | 2.9 | 9.3 |
| | T/YC*300BW | 2 | 575 | 3 | 10.00 | 3450 | 14.9 | 92 | 2 | 1 | 1.00 | 2.0 | 5.7 |
| | T/YC*300BK | 2 | 380 | 3 | 10.0 | 3450 | 21.7 | 137 | 2 | 1 | 1.00 | 3.5 | 8.5 |

(a) HP for each compressor.
(b) For Compressor Motor and Condenser Fan Motors: Amp draw for each motor; multiply value by number of motors to determine total amps.

**Table 68. Electrical Characteristics — Evaporator Fan Motor — 60 Cycle — Standard and Oversized Motor**

| Tons | Unit Model Number | Standard Evaporator Fan Motor | | | | Amps | | Oversized Evaporator Fan Motor | | | | Amps | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | No. | Volts | Phase | HP | FLA | LRA | No. | Volts | Phase | HP | FLA | LRA |
| 12½ | T/YC*150D3 | 1 | 208-230 | 3 | 3.00 | 10.6 | 81.0 | 1 | 208-230 | 3 | 5.00 | 16.7 | 109.8 |
| | T/YC*150D4 | 1 | 460 | 3 | 3.00 | 4.8 | 40.5 | 1 | 460 | 3 | 5.00 | 7.6 | 54.9 |
| | T/YC*150DW | 1 | 575 | 3 | 3.00 | 3.9 | 31.0 | 1 | 575 | 3 | 5.00 | 6.1 | 41.6 |
| | T/YC*150DK | 1 | 380 | 3 | 5.0 | 9.2 | 66.5 | — | — | — | — | — | — |
| 15 | T/YC*180B3 | 1 | 208-230 | 3 | 3.00 | 10.6 | 81.0 | 1 | 208-230 | 3 | 5.00 | 16.7 | 109.8 |
| | T/YC*180B4 | 1 | 460 | 3 | 3.00 | 4.8 | 40.5 | 1 | 460 | 3 | 5.00 | 7.6 | 54.9 |
| | T/YC*180BW | 1 | 575 | 3 | 3.00 | 3.9 | 31.0 | 1 | 575 | 3 | 5.00 | 6.1 | 41.6 |
| | T/YC*180BK | 1 | 380 | 3 | 5.0 | 9.2 | 66.5 | — | — | — | — | — | — |
| 17½ | T/YC*210C3 | 1 | 208-230 | 3 | 5.00 | 16.7 | 109.8 | 1 | 208-230 | 3 | 7.50 | 24.2 | 120.4 |
| | T/YC*210C4 | 1 | 460 | 3 | 5.00 | 7.6 | 54.9 | 1 | 460 | 3 | 7.50 | 11.0 | 74.0 |
| | T/YC*210CW | 1 | 575 | 3 | 5.00 | 6.1 | 41.6 | 1 | 575 | 3 | 7.50 | 9.0 | 60.0 |
| | T/YC*210CK | 1 | 380 | 3 | 7.5 | 13.3 | 83.5 | — | — | — | — | — | — |
| 20 | T/YC*240B3 | 1 | 208-230 | 3 | 5.00 | 16.7 | 109.8 | 1 | 208-230 | 3 | 7.50 | 24.2 | 120.4 |
| | T/YC*240B4 | 1 | 460 | 3 | 5.00 | 7.6 | 54.9 | 1 | 460 | 3 | 7.50 | 11.0 | 74.0 |
| | T/YC*240BW | 1 | 575 | 3 | 5.00 | 6.1 | 41.6 | 1 | 575 | 3 | 7.50 | 9.0 | 60.0 |
| | T/YC*240BK | 1 | 380 | 3 | 7.5 | 13.3 | 83.5 | — | — | — | — | — | — |
| 25 | T/YC*300B3 | 1 | 208-230 | 3 | 7.50 | 24.2 | 120.4 | — | — | — | — | — | — |
| | T/YC*300B4 | 1 | 460 | 3 | 7.50 | 11.0 | 74.0 | — | — | — | — | — | — |
| | T/YC* 300BW | 1 | 575 | 3 | 7.50 | 9.0 | 60.0 | — | — | — | — | — | — |
| | T/YC*300BK | 1 | 380 | 3 | 7.5 | 13.3 | 83.5 | — | — | — | — | — | — |

* Indicates both downflow and horizontal units.

**Table 69. Electrical Characteristics — Combustion Blower Motor (Gas/Electric)**

| Unit Model Number | Heat | Heating Stages | HP | RPM[a] | Volts | Phase | Amps | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | FLA | LRA |
| YC*150 | Low | 2 | 1/20 | 3500/2800 | 208-230 | 1 | 0.5 | 0.78 |
| YC*180, 210, 240, 300 | Low | 2 | 1/10 | 3500/2800 | 208-230 | 1 | 0.8 | 2.00 |
| YC*150, 180, 210, 240, 300 | Modulating | N/A | 1/4 | 4600/950 | 208-230 | 3 | 0.8 | 2.00 |

(a) High/Low Speed.
* Indicates both downflow and horizontal units.

**Table 70. Electrical Characteristics — Power Exhaust (Cooling and Gas/Electric)**

| Tons | Volts | Phase | HP | RPM | Amps | |
|---|---|---|---|---|---|---|
| | | | | | FLA | LRA |
| 12½-25 | 208-230 | 1 | 3/4 | 1040 | 6.6 | 13.5 |
| 12½-25 | 460 | 1 | 3/4 | 1040 | 3.2 | 8.4 |
| 12½-25 | 575 | 1 | 3/4 | 1040 | 2.1 | 5.2 |

**Table 71. Unit Wiring with Cooling (No Electric Heat) or Gas Heat — Standard Refrigeration System**

| Tons | Unit Model Number | Unit Operating Voltage Range | Standard Indoor Fan Motor | | Oversize Indoor Fan Motor | |
|---|---|---|---|---|---|---|
| | | | Minimum Circuit Ampacity[a] | Maximum Fuse Size or Maximum Circuit Breaker | Minimum Circuit Ampacity | Maximum Fuse Size or Maximum Circuit Breaker |
| 12½ | T/YC*151C3 | 187-253 | 64 | 80 | 70 | 90 |
| | T/YC*151C4 | 414-506 | 31 | 40 | 34 | 40 |
| | T/YC*151CW | 517-633 | 25 | 30 | 28 | 35 |
| 15 | T/YC*181C3 | 187-253 | 74 | 90 | 80 | 100 |
| | T/YC*181C4 | 414-506 | 36 | 50 | 38 | 50 |
| | T/YC*181CW | 517-633 | 29 | 40 | 31 | 40 |
| 17½ | T/YC*211C3 | 187-253 | 91 | 110 | 98 | 125 |
| | T/YC*211C4 | 414-506 | 44 | 60 | 48 | 60 |
| | T/YC*211CW | 517-633 | 35 | 45 | 38 | 50 |
| 20 | T/YC*241C3 | 187-253 | 99 | 125 | 107 | 125 |
| | T/YC*241C4 | 414-506 | 50 | 60 | 54 | 70 |
| | T/YC*241CW | 517-633 | 40 | 50 | 43 | 50 |
| 25 | T/YC*301C3 | 187-253 | 120 | 150 | N/A | N/A |
| | T/YC*301C4 | 414-506 | 58 | 70 | N/A | N/A |
| | T/YC*301CW | 517-633 | 47 | 60 | N/A | N/A |

(a) For Standard and Oversized Indoor Fan Motor, values do not include power exhaust accessory.
* Indicates both downflow and horizontal units.

**Table 72. Unit Wiring with Cooling (No Electric Heat) or Gas Heat — TXV/Face-Split Evaporator Coil (Downflow Only)**

| Tons | Unit Model Number | Unit Operating Voltage Range | Standard Indoor Fan Motor | | Oversize Indoor Fan Motor | |
|---|---|---|---|---|---|---|
| | | | Minimum Circuit Ampacity[a] | Maximum Fuse Size or Maximum Circuit Breaker | Minimum Circuit Ampacity | Maximum Fuse Size or Maximum Circuit Breaker |
| 12½ | T/YCD151C3 | 187-253 | 59 | 70 | 65 | 80 |
| | T/YCD151C4 | 414-506 | 30 | 35 | 32 | 40 |
| | T/YCD151CW | 517-633 | 24 | 30 | 26 | 30 |
| 15 | T/YCD181C3 | 187-253 | 74 | 90 | 80 | 90 |
| | T/YCD181C4 | 414-506 | 37 | 50 | 39 | 50 |
| | T/YCD181CW | 517-633 | 30 | 40 | 32 | 40 |
| 17½ | T/YCD211C3 | 187-253 | 91 | 125 | 99 | 125 |
| | T/YCD211C4 | 414-506 | 45 | 60 | 49 | 60 |
| | T/YCD211CW | 517-633 | 36 | 45 | 39 | 50 |
| 20 | T/YCD241C3 | 187-253 | 99 | 125 | 107 | 125 |
| | T/YCD241C4 | 414-506 | 51 | 60 | 54 | 70 |
| | T/YCD241CW | 517-633 | 40 | 50 | 43 | 50 |
| 25 | T/YCD301C3 | 187-253 | 117 | 150 | N/A | N/A |
| | T/YCD301C4 | 414-506 | 57 | 70 | N/A | N/A |
| | T/YCD301CW | 517-633 | 46 | 50 | N/A | N/A |

(a) For Standard and Oversized Indoor Fan Motor, values do not include power exhaust accessory.

**Table 73. Unit Wiring with Cooling (No Electric Heat) or Gas Heat — Dehumidification (Hot Gas Reheat) Option (Downflow Only)**

| Tons | Unit Model Number | Unit Operating Voltage Range | Standard Indoor Fan Motor | | Oversize Indoor Fan Motor | |
|---|---|---|---|---|---|---|
| | | | Minimum Circuit Ampacity[a] | Maximum Fuse Size or Maximum Circuit Breaker | Minimum Circuit Ampacity | Maximum Fuse Size or Maximum Circuit Breaker |
| 12½ | T/YCD151C3 | 187-253 | 59 | 70 | 65 | 80 |
| | T/YCD151C4 | 414-506 | 30 | 35 | 32 | 40 |
| | T/YCD151CW | 517-633 | 24 | 30 | 26 | 30 |
| 15 | T/YCD181C3 | 187-253 | 71 | 90 | 77 | 100 |
| | T/YCD181C4 | 414-506 | 36 | 45 | 39 | 50 |
| | T/YCD181CW | 517-633 | 28 | 35 | 30 | 40 |
| 20 | T/YCD241C3 | 187-253 | 98 | 125 | 105 | 125 |
| | T/YCD241C4 | 414-506 | 50 | 60 | 53 | 70 |
| | T/YCD241CW | 517-633 | 39 | 50 | 42 | 50 |

(a) For Standard and Oversized Indoor Fan Motor, values do not include power exhaust accessory.

**Table 74. Unit Wiring with Electric Heat (Single Point Connection) — Standard Refrigeration System (Downflow and Horizontal)**

| Tons | Unit Model Number | Heater Model Number | Heater kW Rating | Control Stages | Standard Indoor Motor | | Oversize Indoor Motor | |
|---|---|---|---|---|---|---|---|---|
| | | | | | MCA | Max Fuse Size or Max Circuit Breaker | MCA | Max Fuse Size or Max Circuit Breaker[a] |
| **208/230 Volts Three Phase** | | | | | | | | |
| 12½ | TC*151C3 | AYDHTRK318/AYHHTRN318 | 13.5/18.0 | 1 | 64/68 | 80/80 | 70/76 | 90/90 |
| | | AYDHTRK336/AYHHTRP336 | 27.0/36.0 | 2 | 108/122 | 110/125 | 115/130 | 125/150 |
| | | AYDHTRK354/AYHHTRP354 | 40.5/54.0 | 2 | 154/176 | 175/200 | 162/184 | 175/200 |
| 15 | TC*181C3 | AYDHTRK318/AYHHTRM318 | 13.5/18.0 | 1 | 74/74 | 100/100 | 80/80 | 100/100 |
| | | AYDHTRK336/AYHHTRM336 | 27.0/36.0 | 2 | 108/122 | 110/125 | 115/130 | 125/150 |
| | | AYDHTRK354/AYHHTRM354 | 40.5/54.0 | 2 | 154/176 | 175/200 | 162/184 | 175/200 |
| 17½ | TC*211C3 | AYDHTRL336/AYHHTRN336 | 27.0/36.0 | 2 | 115/130 | 125/150 | 125/139 | 125/150 |
| | | AYDHTRL354/AYHHTRN354 | 40.5/54.0 | 2 | 162/184 | 175/200 | 171/193 | 175/200 |
| | | AYDHTRK372/AYHHTRN372 | 54.0/72.0 | 2 | 209/238 | 225/250 | 218/247 | 225/250 |
| 20 | TC*241C3 | AYDHTRL336/AYHHTRN336 | 27.0/36.0 | 2 | 115/130 | 125/150 | 125/139 | 125/150 |
| | | AYDHTRL354/AYHHTRN354 | 40.5/54.0 | 2 | 162/184 | 175/200 | 171/193 | 175/200 |
| | | AYDHTRK372/AYHHTRN372 | 54.0/72.0 | 2 | 209/238 | 225/250 | 218/247 | 225/250 |
| 25 | TC*301C3 | AYDHTRL336/AYHHTRN336 | 27.0/36.0 | 2 | 125/139 | 150/150 | — | — |
| | | AYDHTRL354/AYHHTRN354 | 40.5/54.0 | 2 | 171/193 | 175/200 | — | — |
| | | AYDHTRK372/AYHHTRN372 | 54.0/72.0 | 2 | 218/247 | 225/250 | — | — |
| **460 Volts Three Phase** | | | | | | | | |
| 12½ | TC*151C4 | AYDHTRL418/AYHHTRN418 | 18.0 | 1 | 34 | 40 | 37 | 40 |
| | | AYDHTRK436/AYHHTRP436 | 36.0 | 2 | 61 | 70 | 64 | 70 |
| | | AYDHTRK454/AYHHTRP454 | 54.0 | 2 | 88 | 90 | 91 | 100 |
| 15 | TC*181C4 | AYDHTRL418/AYHHTRM418 | 18.0 | 1 | 36 | 50 | 38 | 50 |
| | TCD181C4 | AYDHTRK427 | 27.0 | 2 | 47 | 50 | — | — |
| | TC*181C4 | AYDHTRK436/AYHHTRM436 | 36.0 | 2 | 61 | 70 | 64 | 70 |
| | | AYDHTRK454/AYHHTRM454 | 54.0 | 2 | 88 | 90 | 91 | 100 |
| | TCD211C4 | AYDHTRL427 | 27.0 | 2 | 51 | 60 | — | — |
| 17½ | TC*211C4 | AYDHTRL436/AYHHTRN436 | 36.0 | 2 | 64 | 70 | 68 | 70 |
| | | AYDHTRL454/AYHHTRN454 | 54.0 | 2 | 91 | 100 | 95 | 100 |
| | | AYDHTRK472/AYHHTRN472 | 72.0 | 2 | 118 | 125 | 123 | 125 |
| | TCD241C4 | AYDHTRL427 | 27.0 | 2 | 51 | 60 | — | — |
| 20 | TC*241C4 | AYDHTRL436/AYHHTRN436 | 36.0 | 2 | 64 | 70 | 68 | 70 |
| | | AYDHTRL454/AYHHTRN454 | 54.0 | 2 | 91 | 100 | 95 | 100 |
| | | AYDHTRK472/AYHHTRN472 | 72.0 | 2 | 118 | 125 | 123 | 125 |
| | TCD301C4 | AYDHTRL427 | 27.0 | 2 | 58 | 70 | — | — |
| 25 | TC*301C4 | AYDHTRL436/AYHHTRN436 | 36.0 | 2 | 68 | 70 | — | — |
| | | AYDHTRL454/AYHHTRN454 | 54.0 | 2 | 95 | 100 | — | — |
| | | AYDHTRK472/AYHHTRN472 | 72.0 | 2 | 123 | 125 | — | — |

**continued on next page**

**Table 74. (continued) Unit Wiring with Electric Heat (Single Point Connection) — Standard Refrigeration System (Downflow and Horizontal)**

| Tons | Unit Model Number | Heater Model Number | Heater kW Rating | Control Stages | Standard Indoor Motor | | Oversize Indoor Motor | |
|---|---|---|---|---|---|---|---|---|
| | | | | | MCA | Max Fuse Size or Max Circuit Breaker | MCA | Max Fuse Size or Max Circuit Breaker[a] |
| **575 Volts Three Phase** | | | | | | | | |
| 12½ | TC*151CW | AYDHTRKW18/AYHHTRNW18 | 18.0 | 1 | 27 | 30 | 30 | 35 |
| | | AYDHTRMW36/AYHHTRPW36 | 36.0 | 2 | 49 | 50 | 51 | 60 |
| | | AYDHTRKW54/AYHHTRPW54 | 54.0 | 2 | 70 | 70 | 73 | 80 |
| 15 | TC*181CW | AYDHTRKW18/AYHHTRMW18 | 18.0 | 1 | 29 | 40 | 31 | 40 |
| | | AYDHTRMW36/AYHHTRMW36 | 36.0 | 2 | 49 | 50 | 31 | 40 |
| | | AYDHTRKW54/AYHHTRMW54 | 54.0 | 2 | 70 | 70 | 73 | 80 |
| 17½ | TC*211CW | AYDHTRMW36/AYHHTRMW36 | 36.0 | 2 | 51 | 60 | 55 | 60 |
| | | AYDHTRLW54/AYHHTRNW54 | 54.0 | 2 | 73 | 80 | 77 | 80 |
| | | AYDHTRKW72/AYHHTRNW72 | 72.0 | 2 | 95 | 100 | 98 | 100 |
| 20 | TC*241CW | AYDHTRMW36/AYHHTRMW36 | 36.0 | 2 | 51 | 60 | 55 | 60 |
| | | AYDHTRLW54/AYHHTRNW54 | 54.0 | 2 | 73 | 80 | 77 | 80 |
| | | AYDHTRKW72/AYHHTRNW72 | 72.0 | 2 | 95 | 100 | 98 | 100 |
| 25 | TC*301CW | AYDHTRMW36/AYHHTRMW36 | 36.0 | 2 | 55 | 60 | — | — |
| | | AYDHTRLW54/AYHHTRNW54 | 54.0 | 2 | 77 | 80 | — | — |
| | | AYDHTRKW72/AYHHTRNW72 | 72.0 | 2 | 98 | 100 | — | — |

(a) Values do not include power exhaust accessory.
* Indicates both downflow and horizontal units.

**Table 75. Unit Wiring with Electric Heat (Single Point Connection) — TXV/Face-Split Evaporator Coil or Dehumidification (Hot Gas Reheat) Refrigeration System (Downflow only)**

| Tons | Unit Model Number | Heater Model Number[a] | Heater kW Rating | Control Stages | Standard Indoor Motor | | Oversize Indoor Motor | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Control | Max Fuse Size or Max Circuit Breaker | MCA | Max Fuse Size or Max Circuit Breaker[b] |
| **208/230 Volts Three Phase** | | | | | | | | |
| 12½ | TCD151C3 | AYDHTRK318 | 13.5/18.0 | 1 | 61/68 | 70/70 | 68/76 | 80/80 |
| | | AYDHTRK336 | 27.0/36.0 | 2 | 108/122 | 110/125 | 115/130 | 125/150 |
| | | AYDHTRK354 | 40.5/54.0 | 2 | 154/176 | 175/200 | 162/184 | 175/200 |
| 15 | TCD181C3 | AYDHTRK318 | 13.5/18.0 | 1 | 74/74 | 100/100 | 80/80 | 90/90 |
| | | AYDHTRK336 | 27.0/36.0 | 2 | 108/122 | 110/125 | 115/130 | 125/150 |
| | | AYDHTRK354 | 40.5/54.0 | 2 | 154/176 | 175/200 | 162/184 | 175/200 |
| | TCD181C3 | *AYDHTRK318 | 13.5/18.0 | 1 | 71/71 | 90/90 | 77/77 | 100/100 |
| 17½ | TCD211C3 | AYDHTRL336 | 27.0/36.0 | 2 | 115/130 | 125/150 | 125/139 | 125/150 |
| | | AYDHTRL354 | 40.5/54.0 | 2 | 162/184 | 175/200 | 171/193 | 175/200 |
| | | AYDHTRK372 | 54.0/72.0 | 2 | 209/238 | 225/250 | 218/247 | 225/250 |
| 20 | TCD241C3 | AYDHTRL336 | 27.0/36.0 | 2 | 115/130 | 125/150 | 125/139 | 125/150 |
| | | AYDHTRL354 | 40.5/54.0 | 2 | 162/184 | 175/200 | 171/193 | 175/200 |
| | | AYDHTRK372 | 54.0/72.0 | 2 | 209/238 | 225/250 | 218/247 | 225/250 |
| 25 | TCD301C3 | AYDHTRL336 | 27.0/36.0 | 2 | 125/139 | 150/150 | — | — |
| | | AYDHTRL354 | 40.5/54.0 | 2 | 171/193 | 175/200 | — | — |
| | | AYDHTRK372 | 54.0/72.0 | 2 | 218/247 | 225/250 | — | — |
| **460 Volts Three Phase** | | | | | | | | |
| 12½ | TCD151C4 | AYDHTRL418 | 18.0 | 1 | 34 | 35 | 37 | 40 |
| | | AYDHTRK436 | 36.0 | 2 | 61 | 70 | 64 | 70 |
| | | AYDHTRK454 | 54.0 | 2 | 88 | 90 | 91 | 100 |
| 15 | TCD181C4 | AYDHTRL418 | 18.0 | 1 | 37 | 50 | 39 | 50 |
| | | AYDHTRK427 | 27.0 | 2 | 47 | 50 | — | — |
| | | AYDHTRK436 | 36.0 | 2 | 61 | 70 | 64 | 70 |
| | | AYDHTRK454 | 54.0 | 2 | 88 | 90 | 91 | 100 |
| | TCD181C4 | *AYDHTRL418 | 18.0 | 1 | 36 | 45 | 39 | 50 |
| 17½ | TCD211C4 | AYDHTRL427 | 27.0 | 2 | 51 | 60 | — | — |
| | | AYDHTRL436 | 36.0 | 2 | 64 | 70 | 68 | 70 |
| | | AYDHTRL454 | 54.0 | 2 | 91 | 100 | 95 | 100 |
| | | AYDHTRK472 | 72.0 | 2 | 118 | 125 | 123 | 125 |
| 20 | TCD241C4 | AYDHTRL427 | 27.0 | 2 | 51 | 60 | — | — |
| | | AYDHTRL436 | 36.0 | 2 | 64 | 70 | 68 | 70 |
| | | AYDHTRL454 | 54.0 | 2 | 91 | 100 | 95 | 100 |
| | | AYDHTRK472 | 72.0 | 2 | 118 | 125 | 123 | 125 |
| 25 | TCD301C4 | AYDHTRL427 | 27.0 | 2 | 57 | 70 | — | — |
| | | AYDHTRL436 | 36.0 | 2 | 68 | 70 | — | — |
| | | AYDHTRL454 | 54.0 | 2 | 95 | 100 | — | — |
| | | AYDHTRK472 | 72.0 | 2 | 123 | 125 | — | — |

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**Table 75. (continued) Unit Wiring with Electric Heat (Single Point Connection) — TXV/Face-Split Evaporator Coil or Dehumidification (Hot Gas Reheat) Refrigeration System (Downflow only)**

| Tons | Unit Model Number | Heater Model Number[a] | Heater kW Rating | Control Stages | Standard Indoor Motor | | Oversize Indoor Motor | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Control | Max Fuse Size or Max Circuit Breaker | MCA | Max Fuse Size or Max Circuit Breaker[b] |
| **575 Volts Three Phase** | | | | | | | | |
| 12½ | TCD151CW | AYDHTRKW18 | 18.0 | 1 | 27 | 30 | 30 | 30 |
| | | AYDHTRMW36 | 36.0 | 2 | 49 | 50 | 51 | 60 |
| | | AYDHTRKW54 | 54.0 | 2 | 70 | 70 | 73 | 80 |
| 15 | TCD181CW | AYDHTRKW18 | 18.0 | 1 | 30 | 40 | 32 | 40 |
| | | AYDHTRMW36 | 36.0 | 2 | 49 | 50 | 51 | 60 |
| | | AYDHTRKW54 | 54.0 | 2 | 70 | 70 | 73 | 80 |
| | | *AYDHTRKW18 | 18.0 | 1 | 28 | 35 | 30 | 40 |
| 17½ | TCD211CW | AYDHTRMW36 | 36.0 | 2 | 51 | 60 | 55 | 60 |
| | | AYDHTRLW54 | 54.0 | 2 | 73 | 80 | 77 | 80 |
| | | AYDHTRKW72 | 72.0 | 2 | 95 | 100 | 98 | 100 |
| 20 | TCD241CW | AYDHTRMW36 | 36.0 | 2 | 51 | 60 | 55 | 60 |
| | | AYDHTRLW54 | 54.0 | 2 | 73 | 80 | 77 | 80 |
| | | AYDHTRKW72 | 72.0 | 2 | 95 | 100 | 98 | 100 |
| 25 | TCD301CW | AYDHTRMW36 | 36.0 | 2 | 55 | 60 | — | — |
| | | AYDHTRLW54 | 54.0 | 2 | 77 | 80 | — | — |
| | | AYDHTRKW72 | 72.0 | 2 | 98 | 100 | — | — |

(a) For Heater Model Numbers: AYDHTRK427A and AYDHTRL427A do not use oversized motor.
(b) Values do not include power exhaust accessory. *Applies only to Dehumidification (Hot Gas Reheat) Models.

**Table 76. Electrical Characteristics — Compressor Motor and Condenser Motor — 60 Cycle**

| | | | Compressor Motors | | | | | | Condenser Fan Motors | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Amps[b] | | | | | Amps | |
| Tons | Unit Model Number | No. | Volts | Phase | HP[a] | RPM | RLA | LRA | No. | Phase | HP | FLA | LRA |
| | T/YC*151C3 | 2 | 208-230 | 3 | 5.70 | 3450 | 20.7 | 156 | 2 | 1 | .50 | 3.2 | 8.8 |
| 12½ | T/YC*151C4 | 2 | 460 | 3 | 5.70 | 3450 | 10.0 | 75 | 2 | 1 | .50 | 1.6 | 3.8 |
| | T/YC*151CW | 2 | 575 | 3 | 5.70 | 3450 | 8.2 | 54 | 2 | 1 | .50 | 1.3 | 3.2 |
| | T/YC*181C3 | 2 | 208-230 | 3 | 9.30/4.50 | 3450 | 31.5/16.9 | 253/124 | 2 | 1 | .50 | 3.2 | 8.8 |
| 15 | T/YC*181C4 | 2 | 460 | 3 | 9.30/4.50 | 3450 | 15.1/8.2 | 113/59.6 | 2 | 1 | .50 | 1.6 | 3.8 |
| | T/YC*181CW | 2 | 575 | 3 | 9.30/4.50 | 3450 | 12.1/6.6 | 85/49.4 | 2 | 1 | .50 | 1.3 | 3.2 |
| | T/YC*211C3 | 2 | 208-230 | 3 | 10.0/5.70 | 3450 | 33.3/20.7 | 278/156 | 2 | 1 | 1.00 | 5.5 | 18.3 |
| 17½ | T/YC*211C4 | 2 | 460 | 3 | 10.0/5.70 | 3450 | 16.3/10.0 | 124/75 | 2 | 1 | 1.00 | 2.9 | 9.3 |
| | T/YC*211CW | 2 | 575 | 3 | 10.0/5.70 | 3450 | 13.2/8.2 | 92/54 | 2 | 1 | 1.00 | 2.0 | 5.7 |
| | T/YC*241C3 | 2 | 208-230 | 3 | 9.30 | 3450 | 31.6 | 253 | 2 | 1 | 1.00 | 5.5 | 18.3 |
| 20 | T/YC*241C4 | 2 | 460 | 3 | 9.30 | 3450 | 16.1 | 113 | 2 | 1 | 1.00 | 2.9 | 9.3 |
| | T/YC*241CW | 2 | 575 | 3 | 9.30 | 3450 | 12.9 | 85 | 2 | 1 | 1.00 | 2.0 | 5.7 |
| | T/YC*301C3 | 2 | 208-230 | 3 | 10.00 | 3450 | 37.6 | 278 | 2 | 1 | 1.00 | 5.5 | 18.3 |
| 25 | T/YC*301C4 | 2 | 460 | 3 | 10.00 | 3450 | 18.3 | 124 | 2 | 1 | 1.00 | 2.9 | 9.3 |
| | T/YC*301CW | 2 | 575 | 3 | 10.00 | 3450 | 14.9 | 92 | 2 | 1 | 1.00 | 2.0 | 5.7 |

(a) HP for each compressor. *Indicates both downflow and horizontal units.
(b) For Compressor Motors and Condenser Fan Motors: Amp draw for each motor; multiply value by number of motors to determine total amps.

**Table 77. Electrical Characteristics — Compressor Motor and Condenser Motor — 60 Cycle — TXV/Face-Split Evaporator Coil Option (Downflow Only)**

| | | | Compressor Motors | | | | | | Condenser Fan Motors | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Amps[b] | | | | | Amps | |
| Tons | Unit Model Number | No. | Volts | Phase | HP[a] | RPM | RLA | LRA | No. | Phase | HP | FLA | LRA |
| | T/YCD151C3 | 2 | 208-230 | 3 | 5.7 | 3450 | 18.6 | 156 | 2 | 1 | .50 | 3.2 | 8.8 |
| 12½ | T/YCD151C4 | 2 | 460 | 3 | 5.7 | 3450 | 9.4 | 75 | 2 | 1 | .50 | 1.6 | 3.8 |
| | T/YCD151CW | 2 | 575 | 3 | 5.7 | 3450 | 7.4 | 54 | 2 | 1 | .50 | 1.3 | 3.2 |
| | T/YCD181C3 | 2 | 208-230 | 3 | 9.30/4.50 | 3450 | 32.1/16.4 | 253/124 | 2 | 1 | .50 | 3.2 | 8.8 |
| 15 | T/YCD181C4 | 2 | 460 | 3 | 9.30/4.50 | 3450 | 15.6/8.7 | 113/59.6 | 2 | 1 | .50 | 1.6 | 3.8 |
| | T/YCD181CW | 2 | 575 | 3 | 9.30/4.50 | 3450 | 12.3/7.4 | 85/49.4 | 2 | 1 | .50 | 1.3 | 3.2 |
| | T/YCD211C3 | 2 | 208-230 | 3 | 10.00/5.7 | 3450 | 34.8/19.5 | 278/156 | 2 | 1 | 1.00 | 5.5 | 18.3 |
| 17½ | T/YCD211C4 | 2 | 460 | 3 | 10.00/5.7 | 3450 | 17.0/10.3 | 124/75 | 2 | 1 | 1.00 | 2.9 | 9.3 |
| | T/YCD211CW | 2 | 575 | 3 | 10.00/5.7 | 3450 | 13.8/8.1 | 92/54 | 2 | 1 | 1.00 | 2.0 | 5.7 |
| | T/YCD241C3 | 2 | 208-230 | 3 | 9.0/9.3 | 3500/3450 | 30.4/32.6 | 225/253 | 2 | 1 | 1.00 | 5.5 | 18.3 |
| 20 | T/YCD241C4 | 2 | 460 | 3 | 9.0/9.3 | 3500/3450 | 16.1/16.8 | 114/113 | 2 | 1 | 1.00 | 2.9 | 9.3 |
| | T/YCD241CW | 2 | 575 | 3 | 9.0/9.3 | 3500/3450 | 12.5/13.4 | 80/85 | 2 | 1 | 1.00 | 2.0 | 5.7 |
| | T/YCD301C3 | 2 | 208-230 | 3 | 10.00 | 3450 | 36.2 | 278 | 2 | 1 | 1.00 | 5.5 | 18.3 |
| 25 | T/YCD301C4 | 2 | 460 | 3 | 10.00 | 3450 | 17.7 | 124 | 2 | 1 | 1.00 | 2.9 | 9.3 |
| | T/YCD301CW | 2 | 575 | 3 | 10.00 | 3450 | 14.3 | 92 | 2 | 1 | 1.00 | 2.0 | 5.7 |

(a) HP for each compressor.
(b) For Compressor Motors and Condenser Fan Motors: Amp draw for each motor; multiply value by number of motors to determine total amps.

**Table 78. Electrical Characteristics — Compressor Motor and Condenser Motor — 60 Cycle — Dehumidification (Hot Gas Reheat) Option (Downflow Only)**

| Tons | Unit Model Number | Compressor Motors | | | | | Amps[b] | | Condenser Fan Motors | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | No. | Volts | Phase | HP[a] | RPM | RLA | LRA | No. | Phase | HP | Amps FLA | Amps LRA |
| 12½ | T/YCD151C3 | 2 | 208-230 | 3 | 5.7/5.7 | 3450 | 18.6 | 156 | 2 | 1 | .50 | 3.2 | 8.8 |
| | T/YCD151C4 | 2 | 460 | 3 | 5.7/5.7 | 3450 | 9.7 | 75 | 2 | 1 | .50 | 1.6 | 3.8 |
| | T/YCD151CW | 2 | 575 | 3 | 5.7/5.7 | 3450 | 7.6 | 54 | 2 | 1 | .50 | 1.3 | 3.2 |
| 15 | T/YCD181C3 | 2 | 208-230 | 3 | 8.3/5.7 | 3450 | 27.4/19.0 | 208/156 | 2 | 1 | .50 | 3.2 | 8.8 |
| | T/YCD181C4 | 2 | 460 | 3 | 8.3/5.7 | 3450 | 13.8/10.1 | 100/75 | 2 | 1 | .50 | 1.6 | 3.8 |
| | T/YCD181CW | 2 | 575 | 3 | 8.3/5.7 | 3450 | 10.7/7.9 | 68/54 | 2 | 1 | .50 | 1.3 | 3.2 |
| 20 | T/YCD241C3 | 2 | 208-230 | 3 | 9.0/9.3 | 3500/3450 | 30.1/31.7 | 225/253 | 2 | 1 | 1.00 | 5.5 | 18.3 |
| | T/YCD241C4 | 2 | 460 | 3 | 9.0/9.3 | 3500/3450 | 15.6/16.2 | 114/113 | 2 | 1 | 1.00 | 2.9 | 9.3 |
| | T/YCD241CW | 2 | 575 | 3 | 9.0/9.3 | 3500/3450 | 12.1/13.0 | 80/85 | 2 | 1 | 1.00 | 2.0 | 5.7 |

(a) HP for each compressor.
(b) For Compressor Motors and Condenser Fan Motors: Amp draw for each motor; multiply value by number of motors to determine total amps.

**Table 79. Electrical Characteristics — Evaporator Fan Motor — 60 Cycle — Standard and Oversized**

| Tons | Unit Model Number | Standard Evaporator Fan Motor | | | | | Amps[b] | Oversized Evaporator Fan Motor | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | No. | Volts | Phase | HP[a] | FLA | LRA | No. | Volts | Phase | HP | Amps FLA | Amps LRA |
| 12½ | T/YC*151C3 | 1 | 208-230 | 3 | 3.00 | 10.6 | 81.0 | 1 | 208-230 | 3 | 5.00 | 16.7 | 109.8 |
| | T/YC*151C4 | 1 | 460 | 3 | 3.00 | 4.8 | 40.5 | 1 | 460 | 3 | 5.00 | 7.6 | 54.9 |
| | T/YC*151CW | 1 | 575 | 3 | 3.00 | 3.9 | 31.0 | 1 | 575 | 3 | 5.00 | 6.1 | 41.6 |
| 15 | T/YC*181C3 | 1 | 208-230 | 3 | 3.00 | 10.6 | 81.0 | 1 | 208-230 | 3 | 5.00 | 16.7 | 109.8 |
| | T/YC*181C4 | 1 | 460 | 3 | 3.00 | 4.8 | 40.5 | 1 | 460 | 3 | 5.00 | 7.6 | 54.9 |
| | T/YC*181CW | 1 | 575 | 3 | 3.00 | 3.9 | 31.0 | 1 | 575 | 3 | 5.00 | 6.1 | 41.6 |
| 17½ | T/YC*211C3 | 1 | 208-230 | 3 | 5.00 | 16.7 | 109.8 | 1 | 208-230 | 3 | 7.50 | 24.2 | 120.4 |
| | T/YC*211C4 | 1 | 460 | 3 | 5.00 | 7.6 | 54.9 | 1 | 460 | 3 | 7.50 | 11.0 | 74.0 |
| | T/YC*211CW | 1 | 575 | 3 | 5.00 | 6.1 | 41.6 | 1 | 575 | 3 | 7.50 | 9.0 | 60.0 |
| 20 | T/YC*241C3 | 1 | 208-230 | 3 | 5.00 | 16.7 | 109.8 | 1 | 208-230 | 3 | 7.50 | 24.2 | 120.4 |
| | T/YC*241C4 | 1 | 460 | 3 | 5.00 | 7.6 | 54.9 | 1 | 460 | 3 | 7.50 | 11.0 | 74.0 |
| | T/YC*241CW | 1 | 575 | 3 | 5.00 | 6.1 | 41.6 | 1 | 575 | 3 | 7.50 | 9.0 | 60.0 |
| 25 | T/YC*301C3 | 1 | 208-230 | 3 | 7.50 | 24.2 | 120.4 | — | — | — | — | — | — |
| | T/YC*301C4 | 1 | 460 | 3 | 7.50 | 11.0 | 74.0 | — | — | — | — | — | — |
| | T/YC*301CW | 1 | 575 | 3 | 7.50 | 9.0 | 60.0 | — | — | — | — | — | — |

(a) HP for each compressor.
* Indicates downflow and horizontal units.
(b) For Compressor Motors and Condenser Fan Motors: Amp draw for each motor; multiply value by number of motors to determine total amps.

**Table 80. Electrical Characteristics — Combustion Blower Motor (Gas/Electric)**

| Unit Model Number | Heat | Heating Stages | HP | RPM[a] | Volts | Phase | Amps | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | FLA | LRA |
| YC*151 | Low | 2 | 1/20 | 3500/2800 | 208-230 | 1 | 0.5 | 0.78 |
| YC*181, 211, 241-301 | Low | 2 | 1/10 | 3500/2800 | 208-230 | 1 | 0.8 | 2.00 |
| YC*150,180,210,240,300 | Modulating | N/A | 1/4 | 4600/950 | 208-230 | 3 | 0.8 | 2.00 |

(a) High/Low Speed.
* Indicates both downflow and horizontal units.

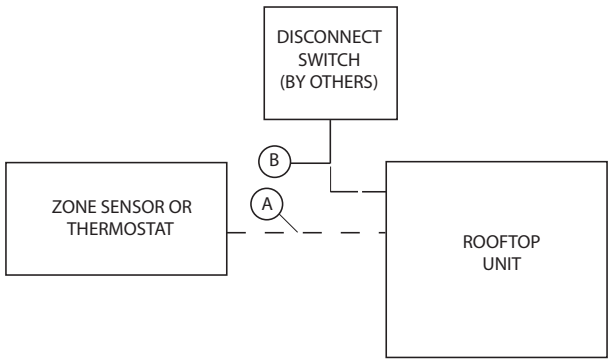
**Table 81. Electrical Characteristics — Power Exhaust (Cooling and Gas/Electric)**

| Tons | Volts | Phase | HP | RPM | Amps | |
|---|---|---|---|---|---|---|
| | | | | | FLA | LRA |
| 12½ | 208-230 | 1 | 3/4 | 1040 | 6.6 | 13.5 |
| 15,17½,20,25 | 460 | 1 | 3/4 | 1040 | 3.2 | 8.4 |
| 15,17½,20,25 | 575 | 1 | 3/4 | 1040 | 2.1 | 5.2 |

# Jobsite Connections

**Table 82. Typical Number of Wires**

| | | |
|---|---|---|
| **Zone Sensors** | | |
| **A** | Manual Changeover | 4 |
| | Manual/Auto Changeover | 5 |
| | Manual/Auto Changeover with Status Indication LED's | 10 |
| | Programmable Night Setback with Status Indication LED's | 7 |
| **Thermostats** | | |
| **B** | 3 Power Wires + 1 Ground Wire (three phase) | |
| | 2 Power Wires + 1 Ground Wire (single phase) | |




- For specific wiring information, see the installation instructions.
- All wiring except power wire is low voltage.
- All customer supplied wiring to be copper and must conform to applicable electrical codes (such as NEC or CEC) and local electric codes. Wiring shown dotted is to be furnished and installed by the customer.

# Typical Wiring

**Figure 5. 12½-25 Tons Cooling with Optional Electric Heat**

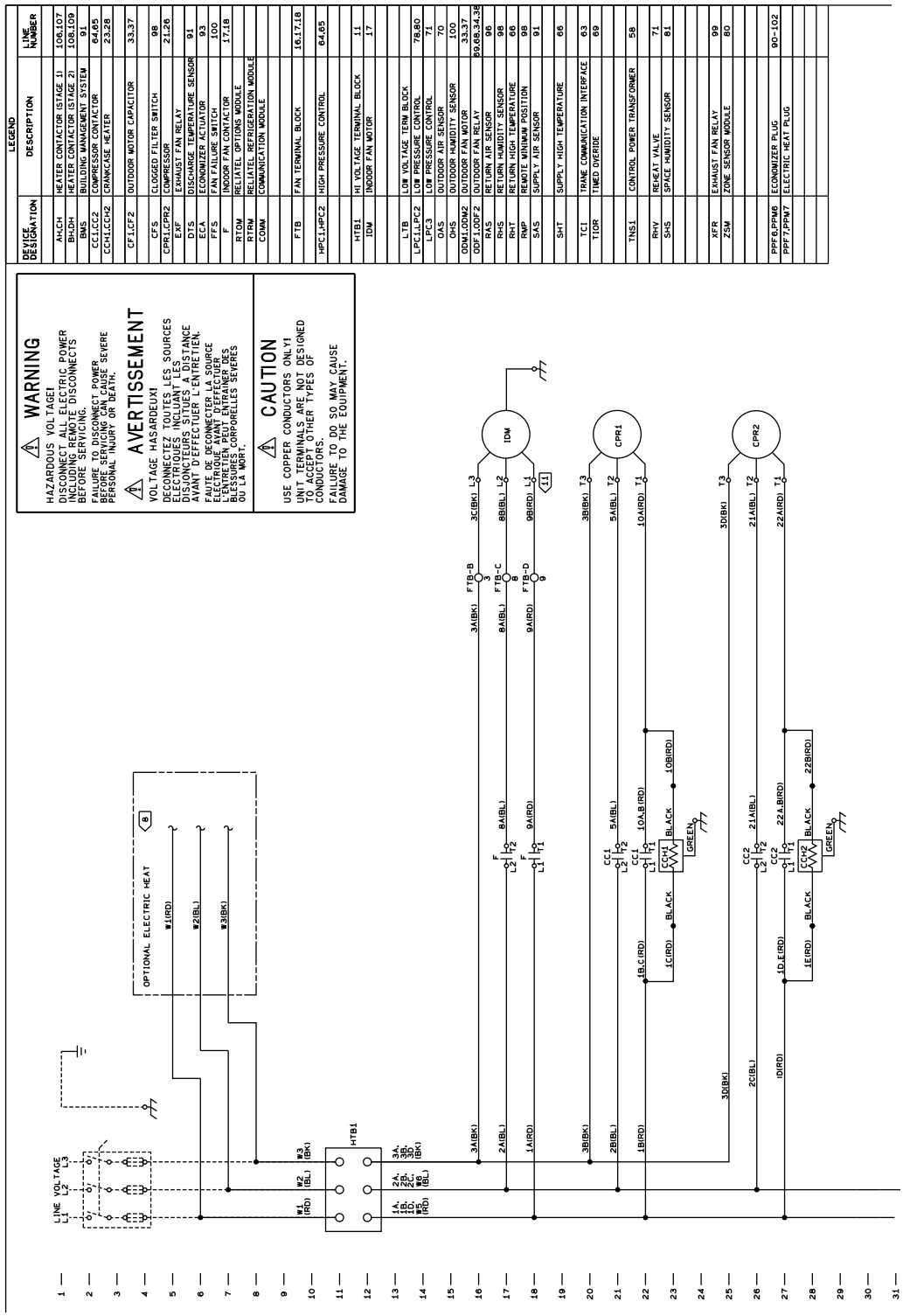


**Figure 5. (continued from previous page) 12½-25 Tons Cooling with Optional Electric Heat**

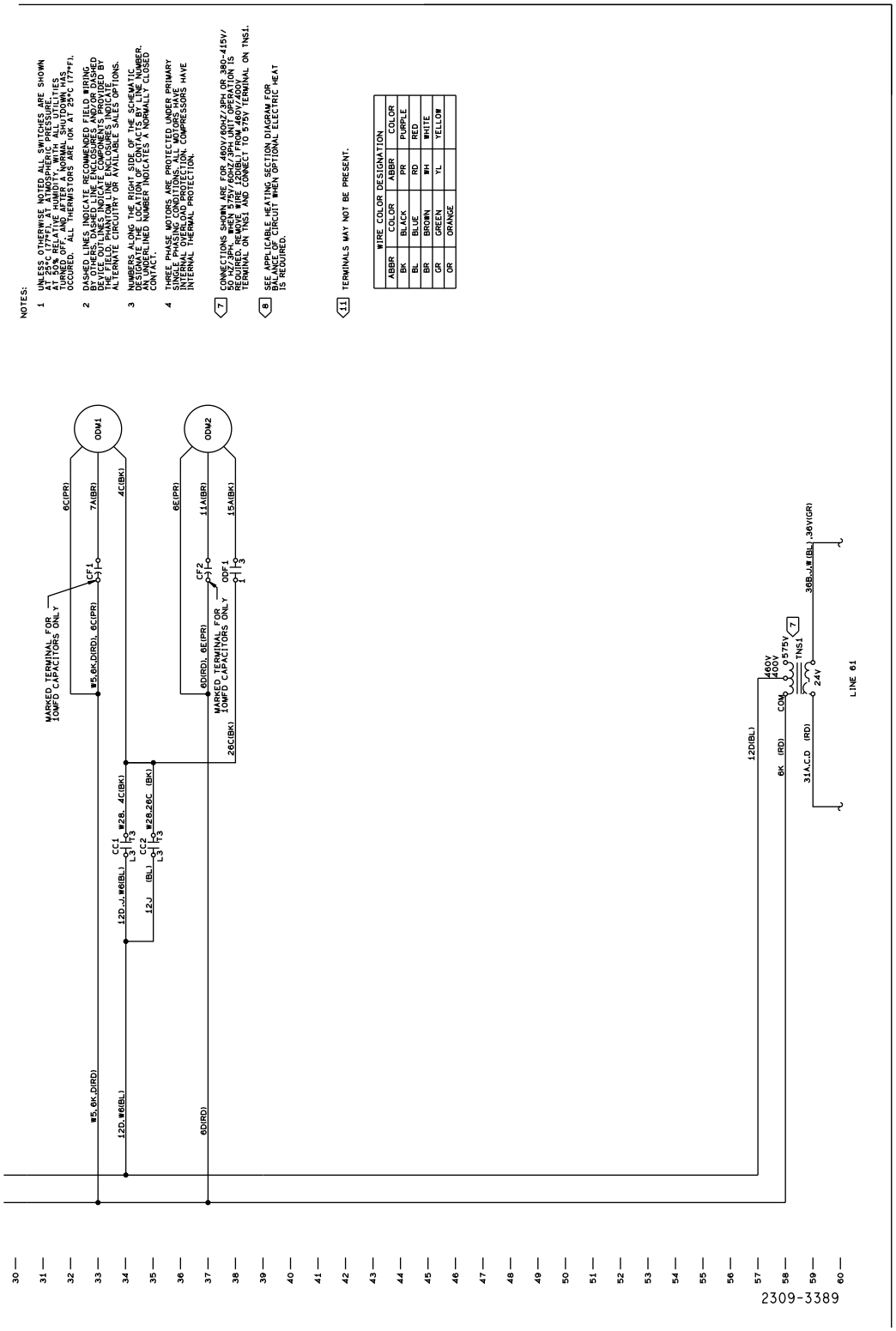


**Figure 6. 12½-25 Tons Cooling with Optional Electric Heat**

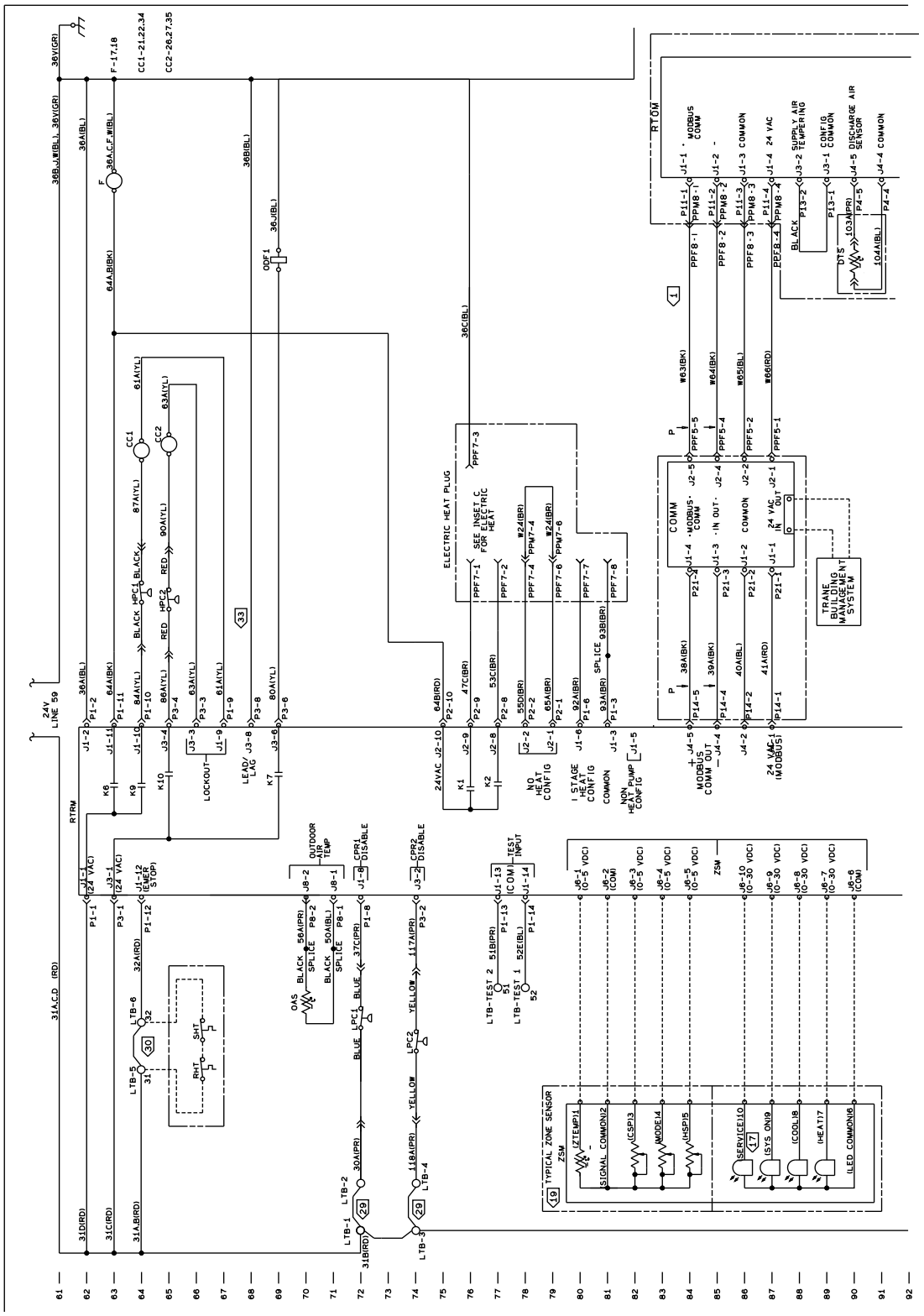
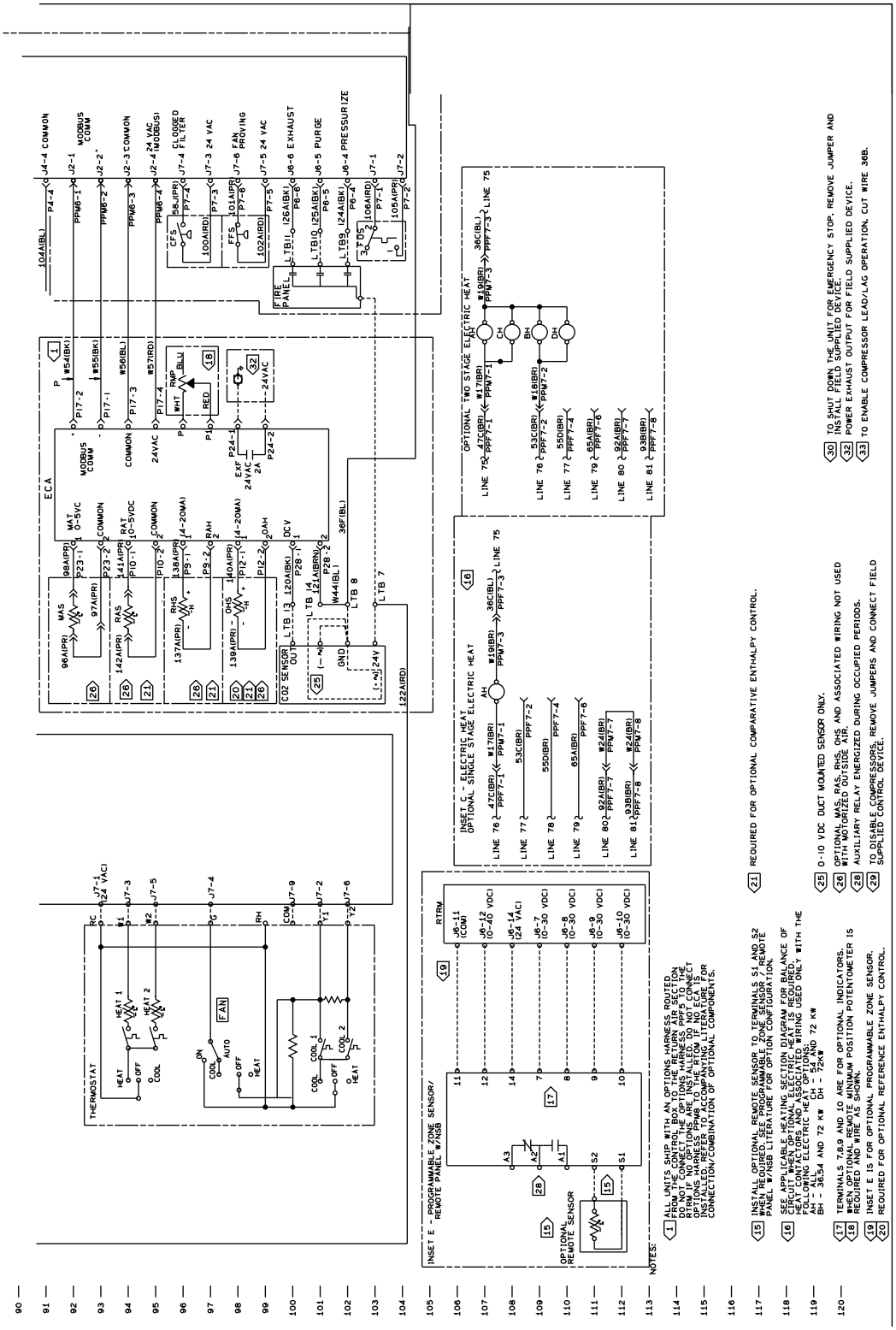


**Figure 6. (continued from previous page) 12½-25 Tons Cooling with Optional Electric Heat**



# Typical Wiring

**Figure 7. 12½-25 Tons Gas/Electric**

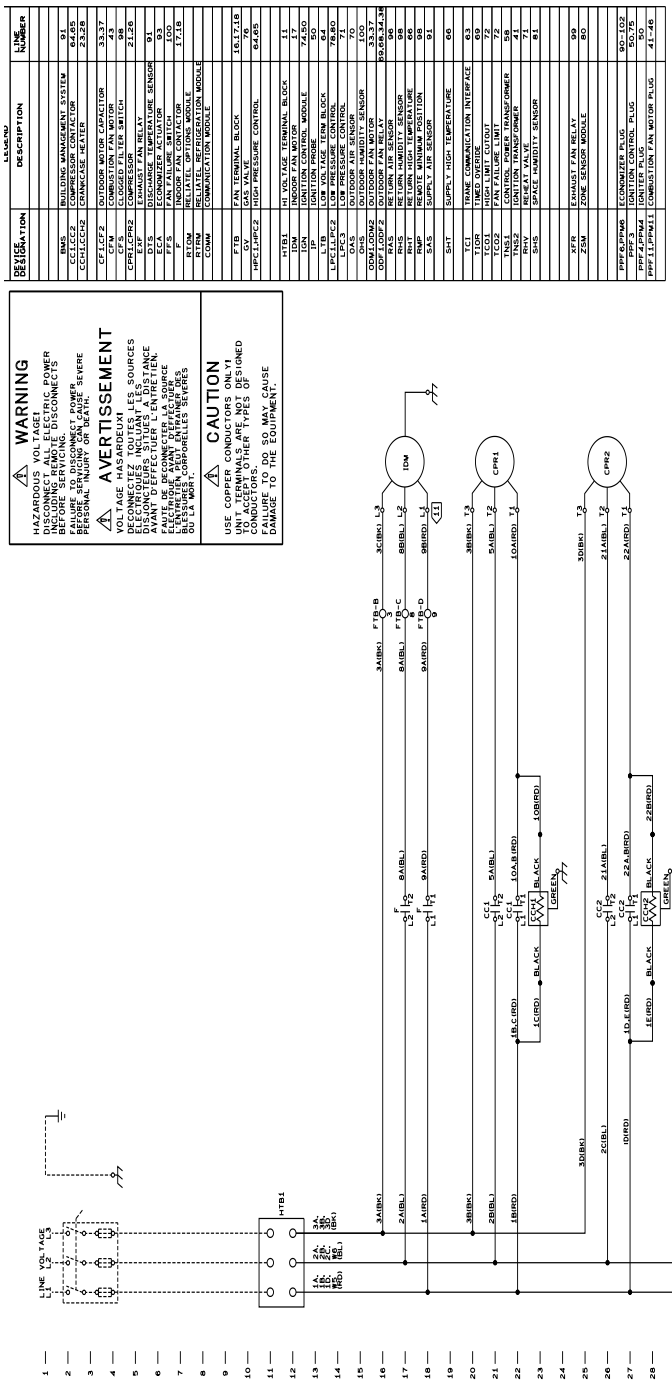


**Figure 7. (continued from previous page) 12½-25 Tons Gas/Electric**

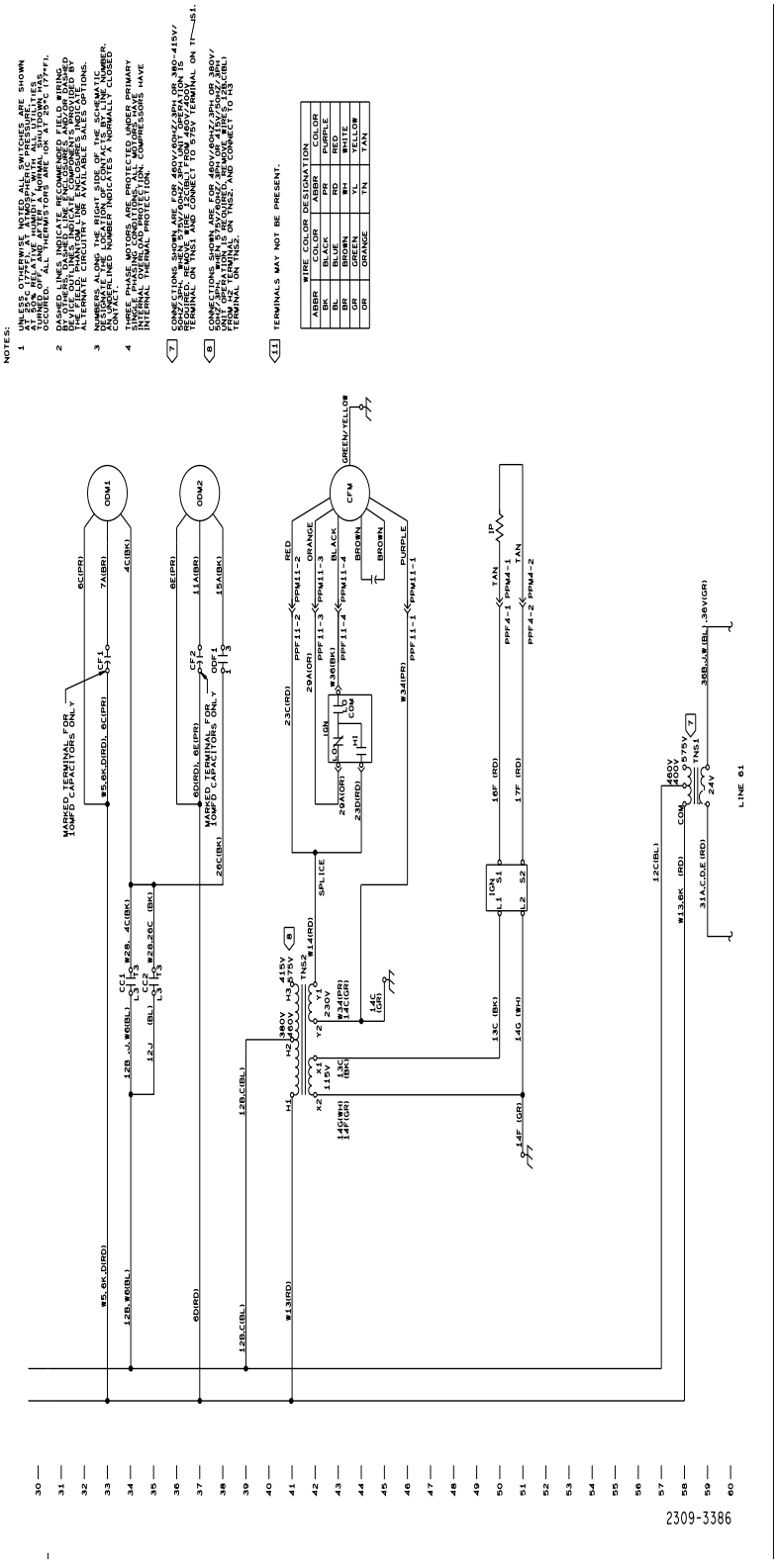


**Figure 8. 12½-25 Tons Gas/Electric**

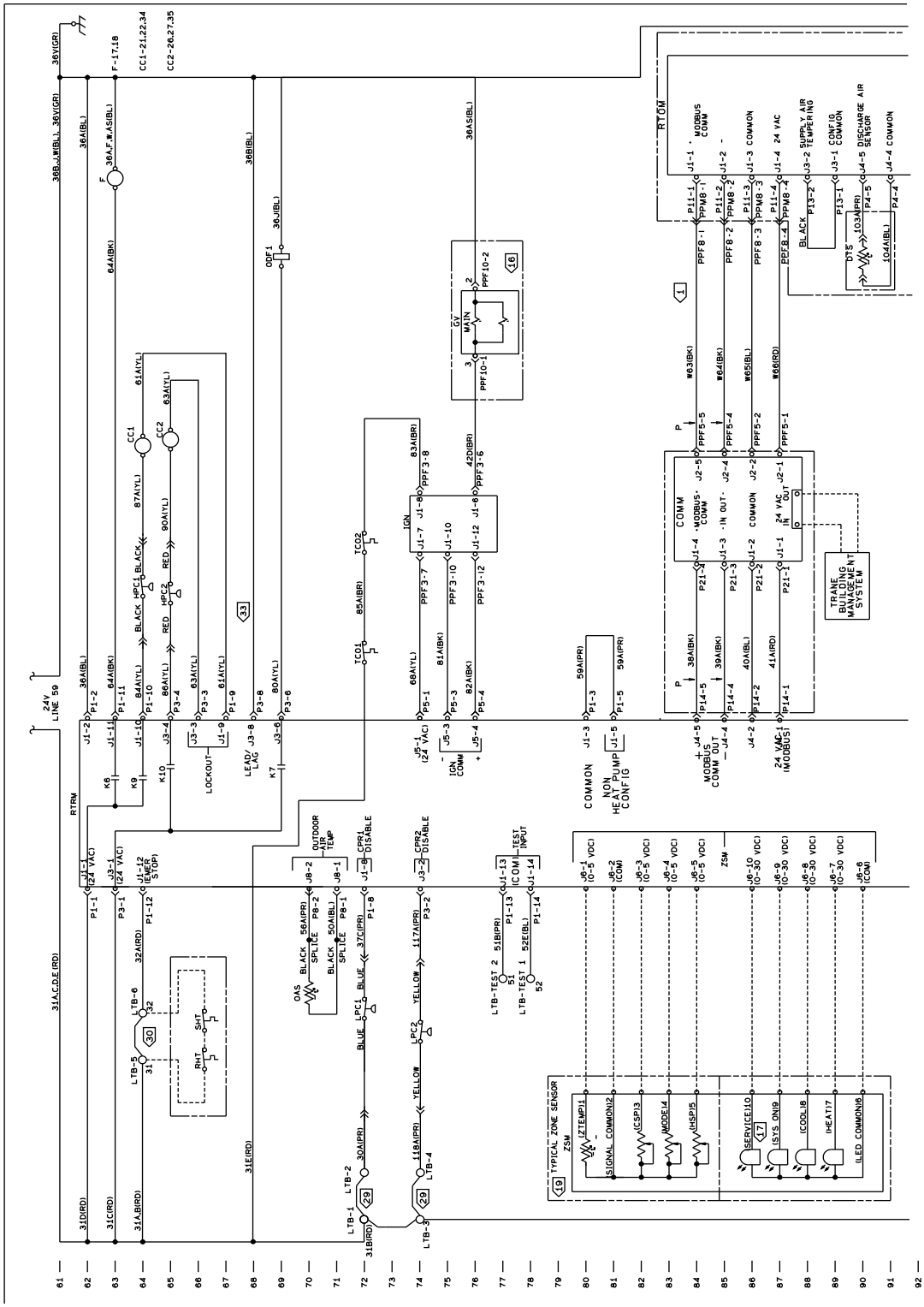
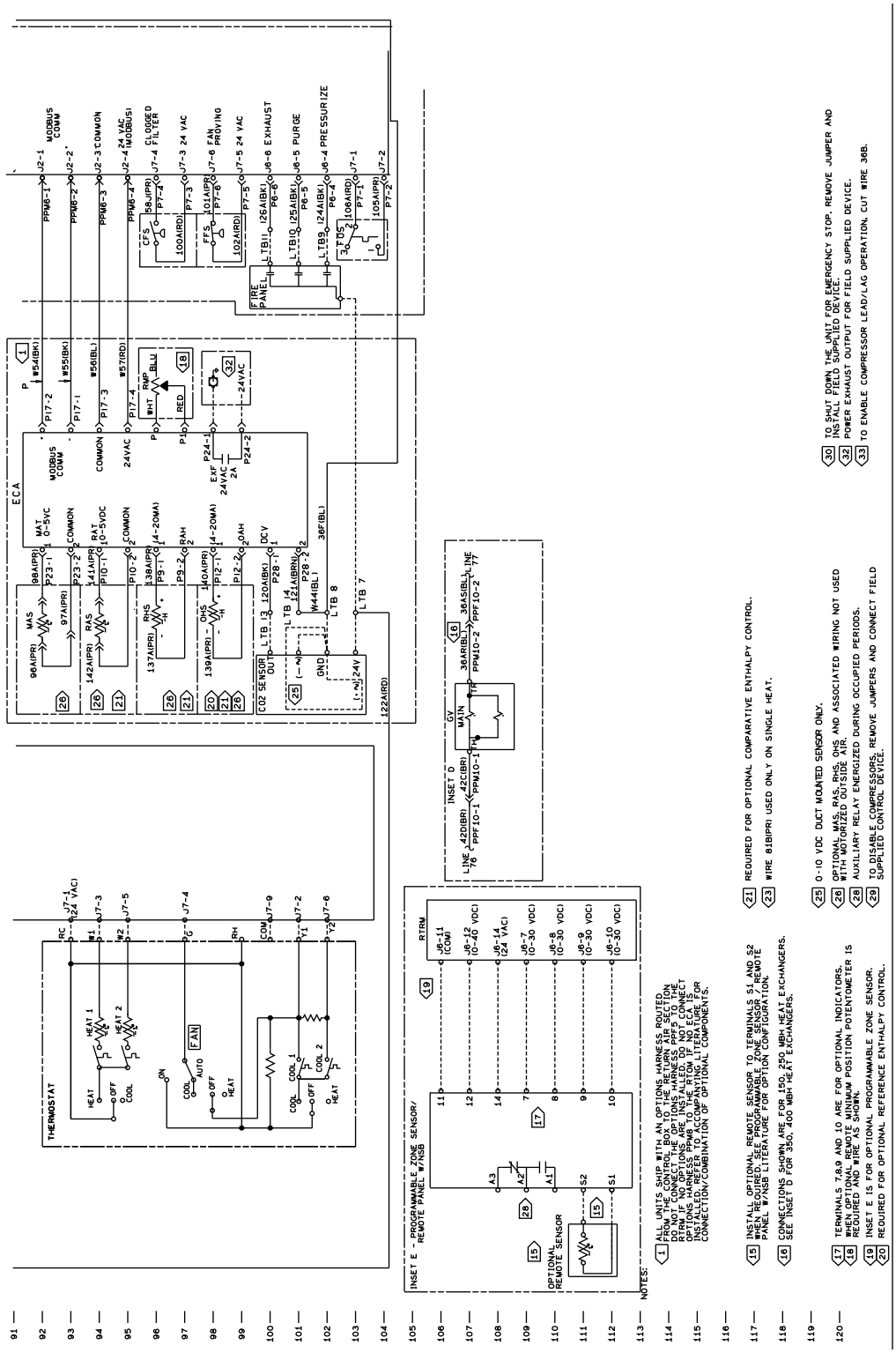


**Figure 8. (continued from previous page) 12½-25 Tons Gas/Electric**



# Dimensional Data

**Figure 9. Cooling with Optional Electric Heat and Gas/Electric Models - 12½-17½ Tons Standard Efficiency; 12½ Tons High Efficiency**

* All dimensions are in inches/millimeters.
**1/2 NPT Gas Connection = (Y_C Models only); 2" Electrical Connection: Single Point Power When Heat Installed (T_C Models only.)

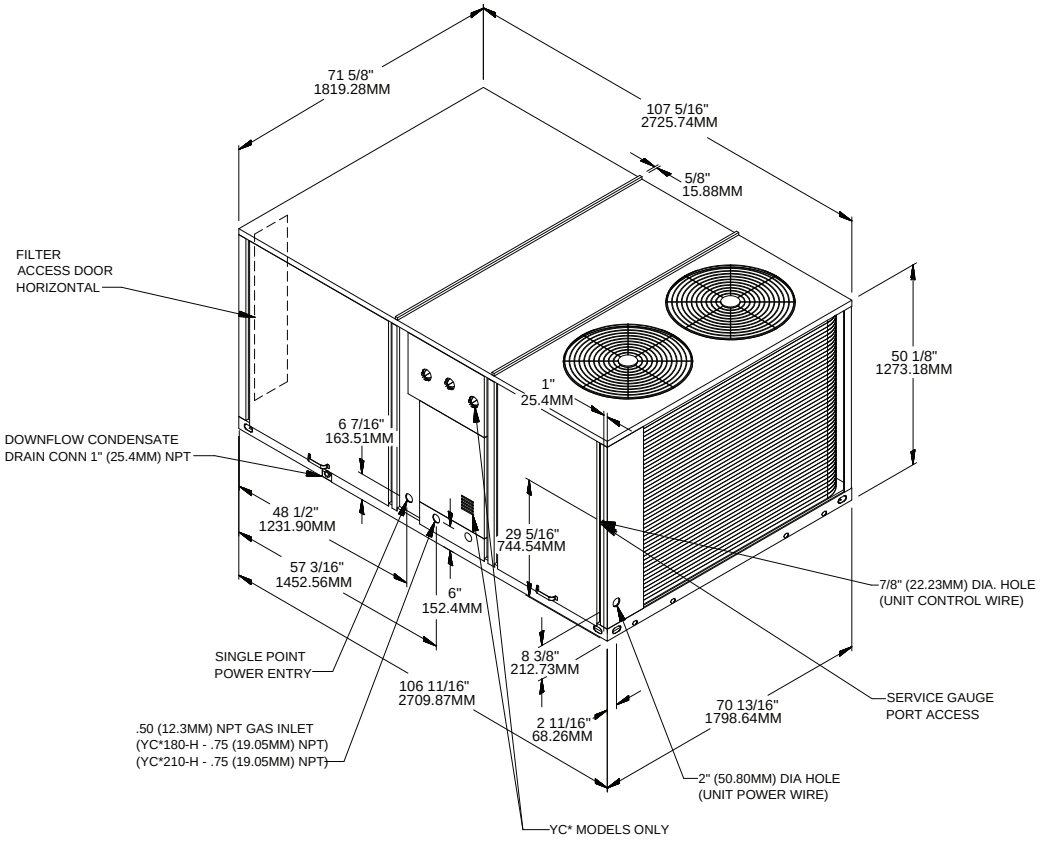


**Figure 10. Cooling with Optional Electric Heat and Gas/Electric Models - 12½-17½ Tons Standard Efficiency; 12½ Tons High Efficiency - Unit Clearance**

* All dimensions are in inches/millimeters.

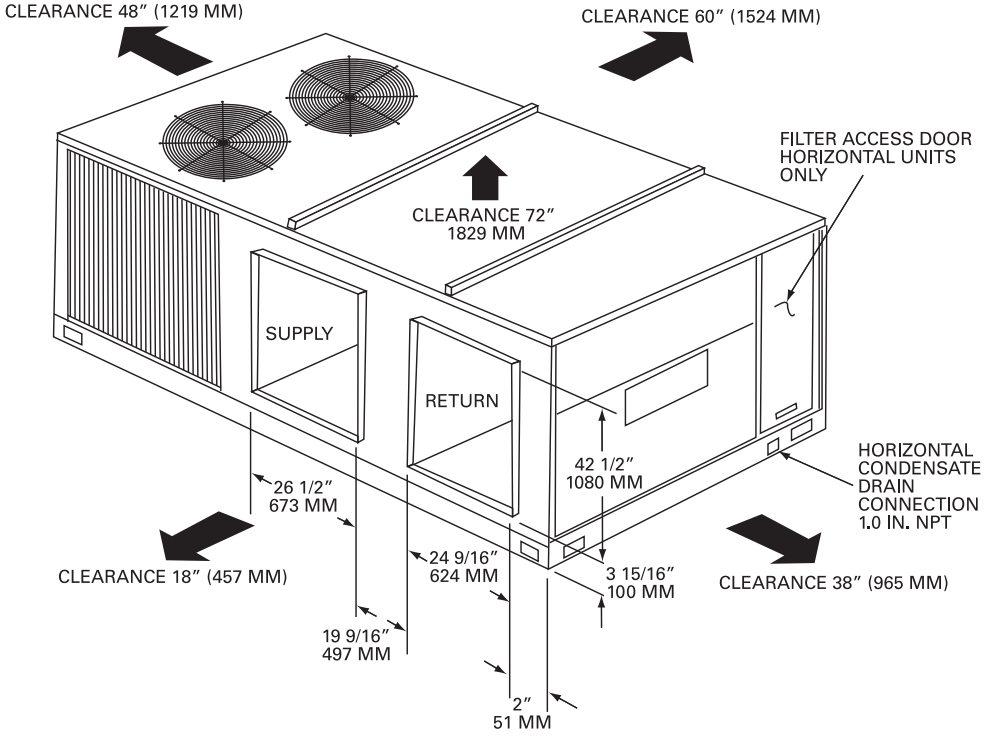
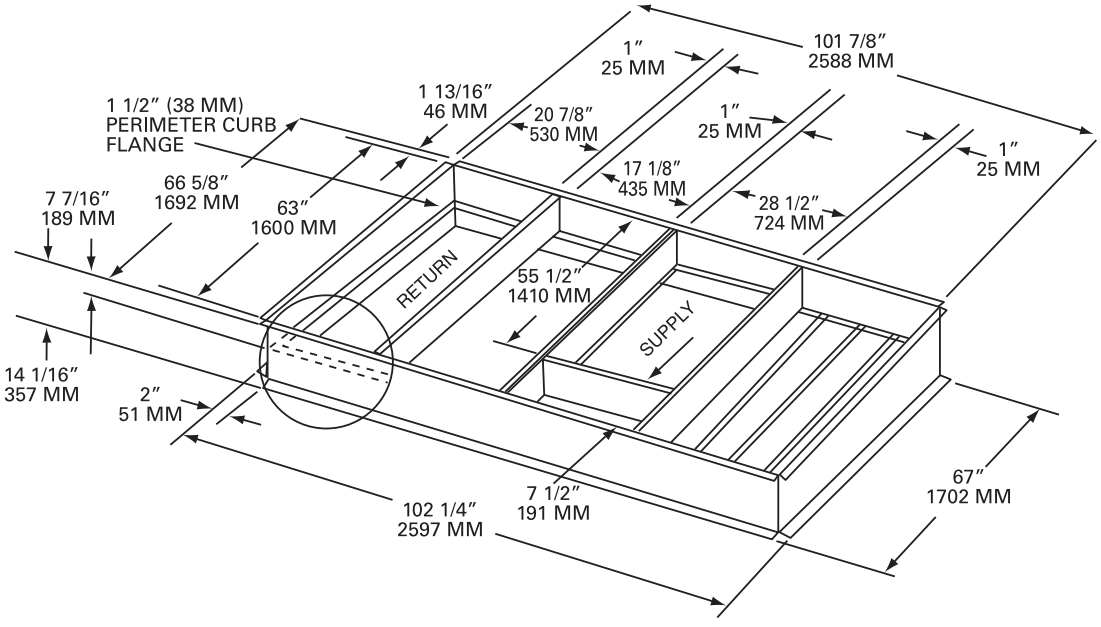



**Figure 11. Cooling with Optional Electric Heat and Gas/Electric Models 12½-17½ Tons Standard Efficiency - 12½ Tons High Efficiency - Roof Curb**

* All dimensions are in inches/millimeters.



## Dimensional Data

**Figure 12. Cooling with Optional Electric Heat and Gas/Electric Models 12½-17½ Tons Standard Efficiency; 12½ High Efficiency - Downflow Duct Connections - Field Fabricated**

* All dimensions are in inches/millimeters.
* Duct flanges mount 7-7/16" (189mm) down inside the curb on the 1.5" (38mm)curb flanges.
Roofcurb is intended for downflow use only.

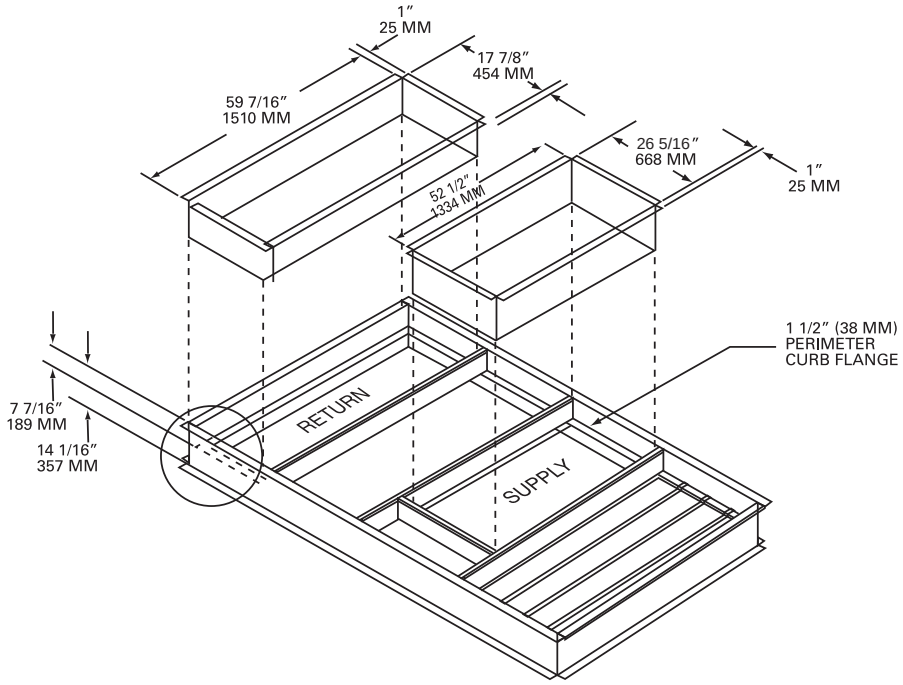



**Figure 13. Cooling with Optional Electric Heat and Gas/Electric Models - 12½-17½ Tons Standard Efficiency; 12½ Tons High Efficiency - Horizontal Unit Supply/Return and Unit Clearance**

* All dimensions are in inches/millimeters.

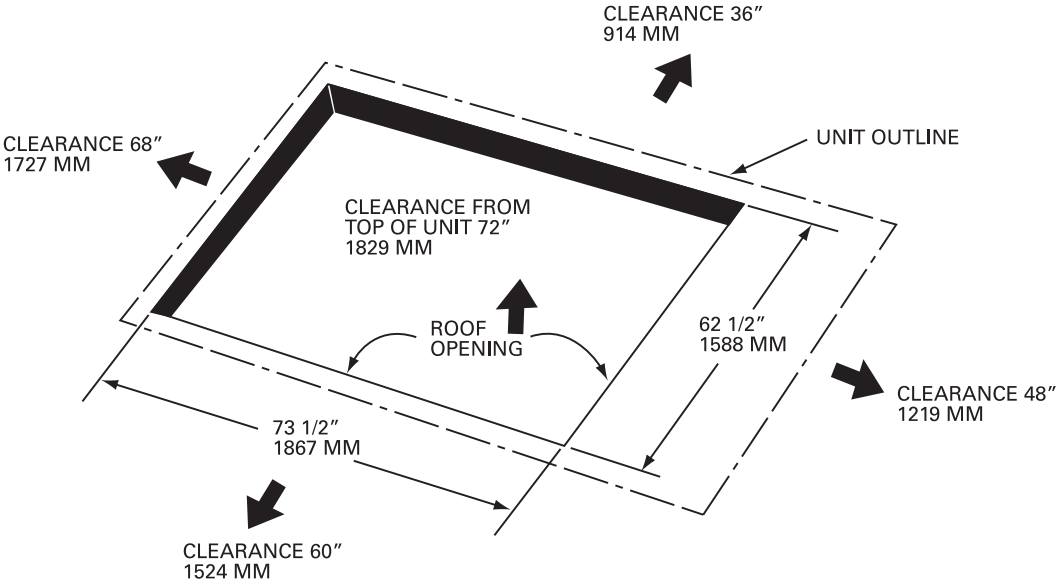
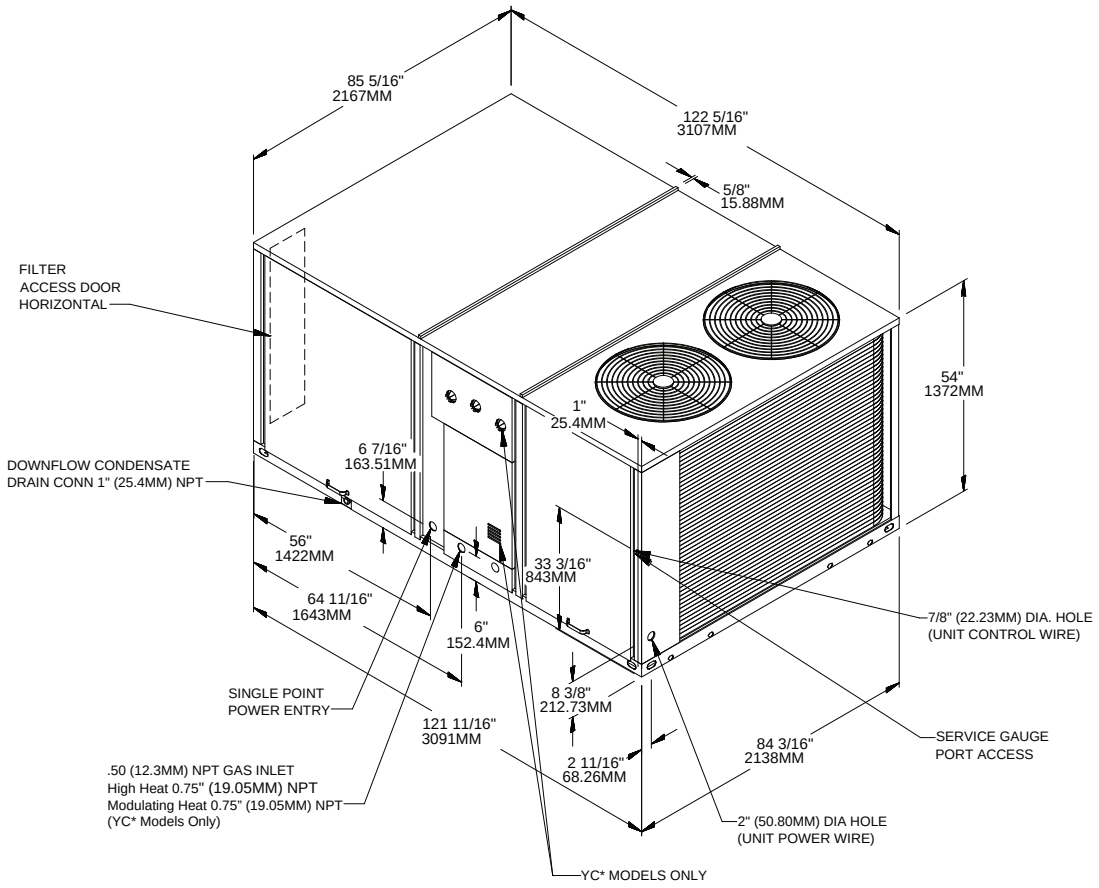


**Figure 14. Cooling with Optional Electric Heat and Gas/Electric Models - 20-25 Tons Standard Efficiency; 15-25 Tons High Efficiency**

* All dimensions are in inches/millimeters.



## Dimensional Data

**Figure 15. Cooling with Optional Electric Heat and Gas/Electric Models - 20-25 Tons Standard Efficiency; 15-25 Tons High Efficiency - Unit Clearance and Horizontal Unit Supply/Return**

* All dimensions are in inches/millimeters.

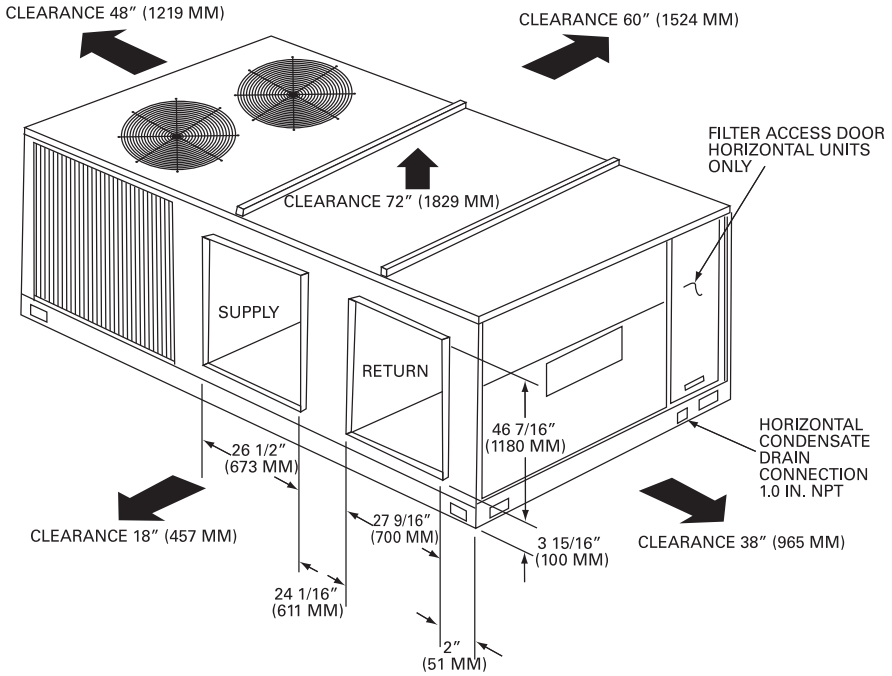



**Figure 16. Cooling with Optional Electric Heat and Gas/Electric Models - 20-25 Tons Standard Efficiency; 15-25 Tons High Efficiency - Roof Curb**

* All dimensions are in inches/millimeters.

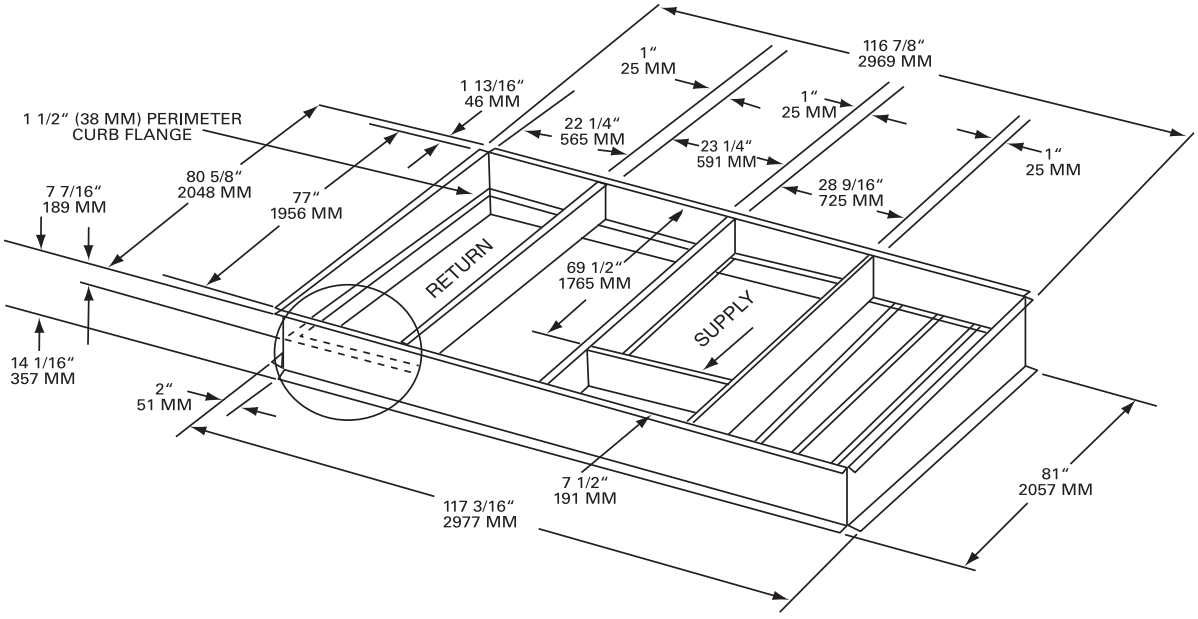


**Figure 17. Cooling with Optional Electric Heat and Gas/Electric Models - 20-25 Tons Standard Efficiency; 15-25 Tons High Efficiency - Downflow Duct Connections - Field Fabricated**

* All dimensions are in inches/millimeters.
* Duct flanges mount 7-7/16" down inside the curb on the 1-1½ curb flanges.
Roofcurb is intended for downflow use only.

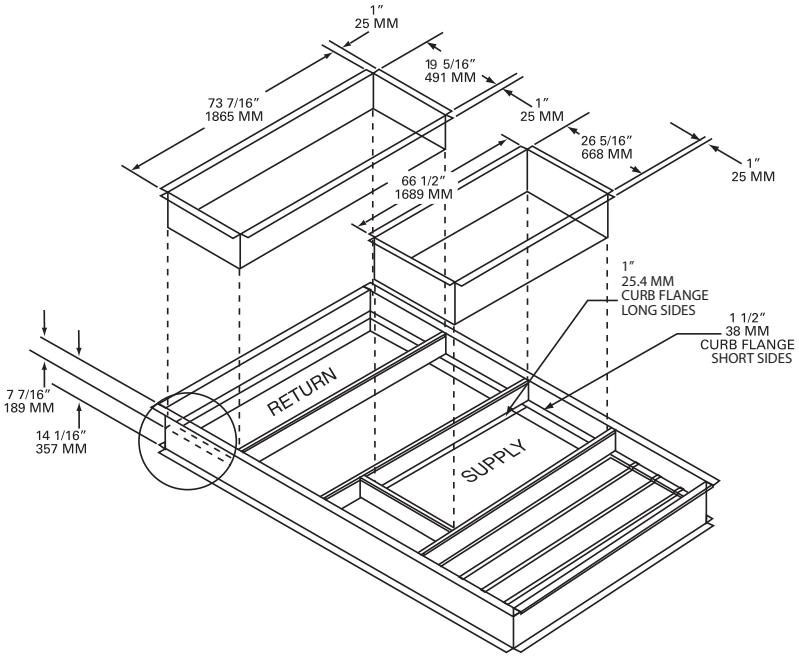



**Figure 18. Cooling with Optional Electric Heat and Gas/Electric Models - 20-25 Tons Standard Efficiency; 15-25 Tons High Efficiency - Downflow Unit Clearance**

* All dimensions are in inches/millimeters.

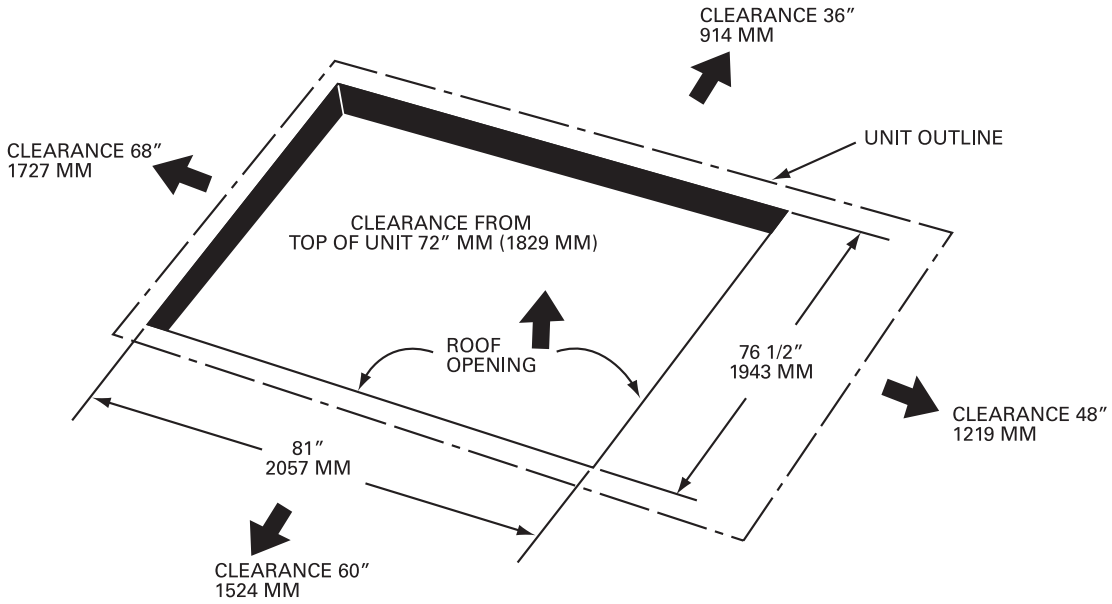


**Figure 19. Condensate Drain Locations**

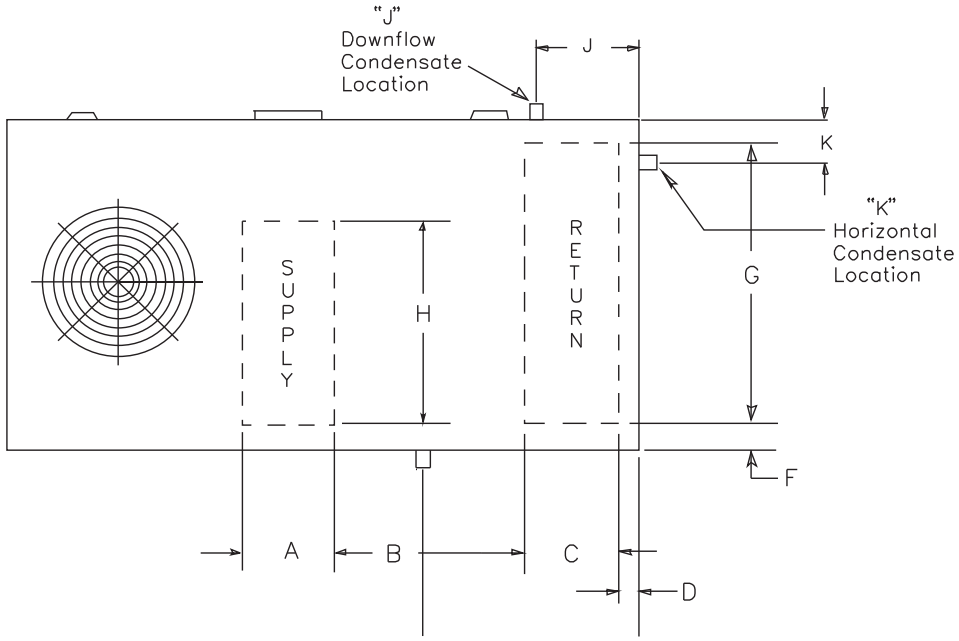



**Table 83. Standard Efficiency Units (Cooling and Gas/Electric)**

| | Downflow Only | | | | | | | Condensate | Condensate Drain Location | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Downflow | Horizontal |
| Tons | A | B | C | D | F | G | H | Drain Size | J | K |
| 12½, 15, 17½ | 26 7/16 | 22 1/2 | 18 11/16 | 4 1/4 | 4 1/4 | 62 7/16 | 54 11/16 | 1 NPT | 25 5/8 | 6 |
| 20, 25 | 26 7/16 | 28 3/4 | 19 15/16 | 4 1/4 | 4 1/4 | 76 5/16 | 68 11/16 | 1 NPT | 26 3/4 | 5 3/8 |

**Table 84. High Efficiency Units (Cooling and Gas/Electric)**

| | Downflow Only | | | | | | | Condensate | Condensate Drain Location | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Downflow | Horizontal |
| Tons | A | B | C | D | F | G | H | Drain Size | J | K |
| 12½ | 26 7/16 | 22 1/2 | 18 11/16 | 4 1/4 | 4 1/4 | 62 7/16 | 54 11/16 | 1 NPT | 25 5/8 | 6 |
| 15-25 | 26 7/16 | 28 3/4 | 19 15/16 | 4 1/4 | 4 1/4 | 76 5/16 | 68 11/16 | 1 NPT | 26 3/4 | 5 3/8 |

**Table 85. Swing Diameter and Through the Base Dimensions**

| Unit Model # | A | B | C | D | E |
|---|---|---|---|---|---|
| TCD150, 151, 180, 210 | 42 3/8 | 48 3/8 | 31 | N/A | N/A |
| TCD181, 211-301 | 29 1/2 | 56 | 38 1/2 | 18 1/2 | N/A |
| TCH150, 151, 180, 210 | 42 3/8 | N/A | 31 | N/A | 12 |
| TCH181, 211-301 | 29 1/2 | N/A | 38 1/2 | 18 1/2 | 14 |

**Note:** All dimensions are in inches.

**Figure 20. Cooling Unit - Swing Diameter & Through the Base Electrical**

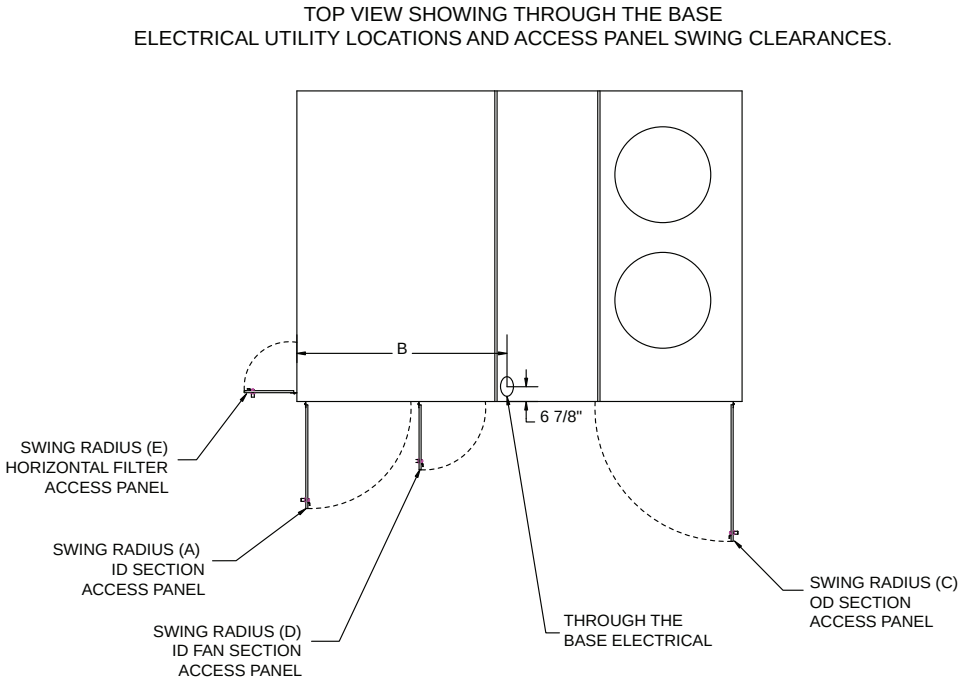


**Table 86. Swing Diameter, Through the Base and Gas Pipe Dimensions (Gas/Electric Units)**

| Unit Model # | A | B | C | D | E |
|---|---|---|---|---|---|
| YCD150, 151, 180, 210 | 42 3/8 | 66 3/8 | 48 3/8 | N/A | N/A |
| YCD181, 211-301 | 29 1/2 | 77 7/8 | 56 | 18 1/2 | N/A |
| YCH150, 151, 180, 210 | 42 3/8 | N/A | N/A | N/A | 12 |
| YCH181, 211-301 | 29 1/2 | N/A | N/A | 18 1/2 | 14 |

All dimensions are in inches.

**Figure 21. Gas/Electric Unit - Swing Diameter & Through the Base Electrical; Height of Gas Pipe (Second Drawing)**

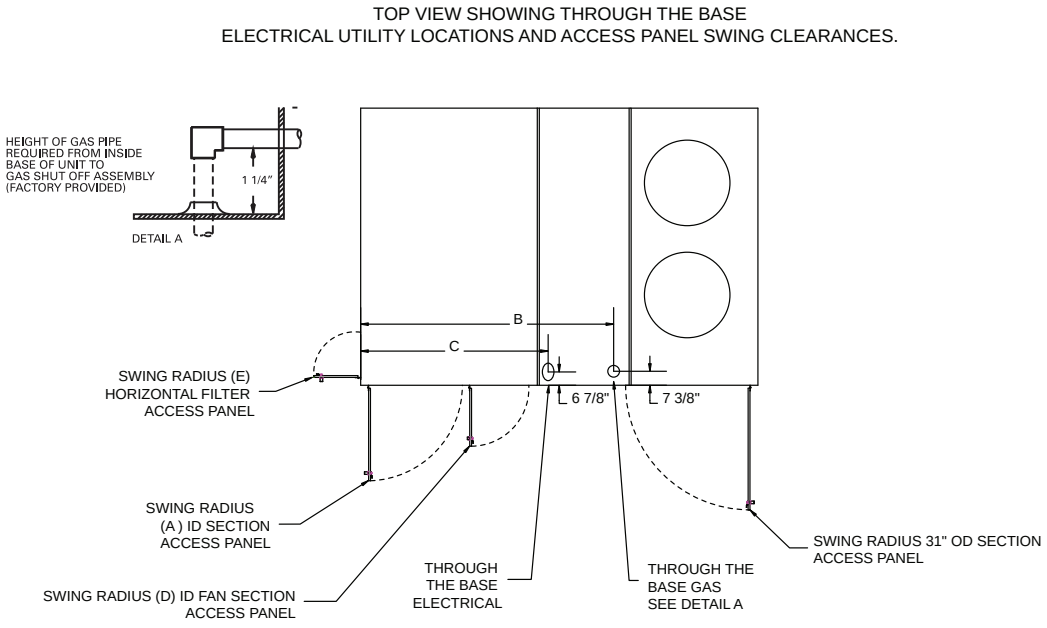


**Figure 22. Fresh Air Hood (Horizontal Units)**

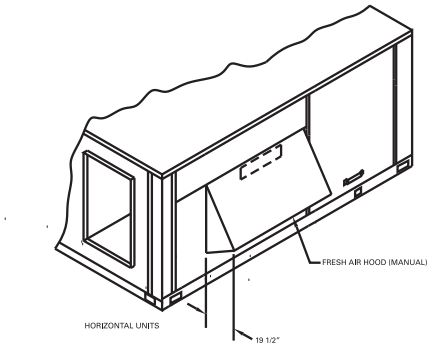



**Figure 23. Fresh Air Hood (Downflow Units)**

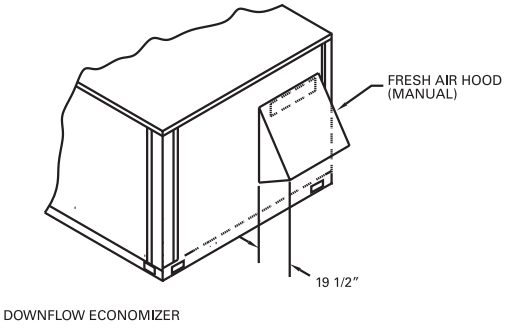



**Figure 24. Power Exhaust - Downflow Economizers**

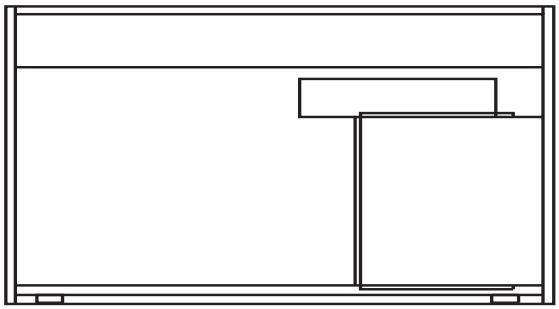



**Figure 25. Power Exhaust - Downflow Economizers - Side View**

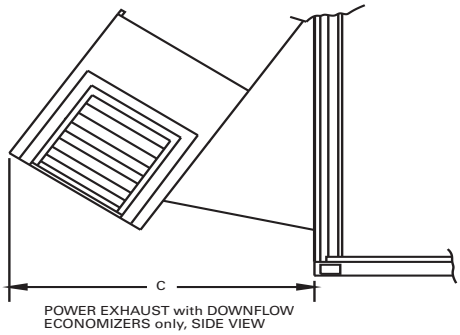
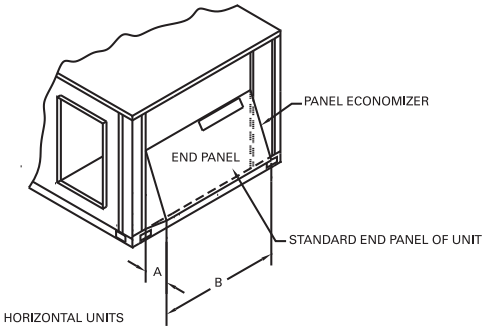



**Figure 26. Economizer - Horizontal Units**




**Note:** When applying economizer to horizontal units, connected ductwork must be run full size to allow proper operation of economizer damper.

**Figure 27. Economizer - Downflow Units**

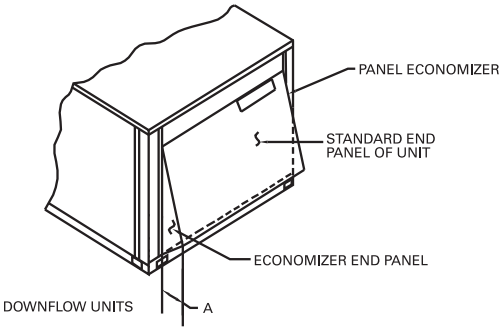



**Table 87. Power Exhaust Dimensions**

| Unit Model # | A | B[a] | C[b] |
|---|---|---|---|
| T/YC*150-151-180,210 | 17½ | 53¾ | 36 |
| T/YC*181, 211-301 | 19½ | 64¾ | 39 |

(a) Horizontal dimension only. Downflow economizer is width of end panel.
(b) Power exhaust is applied on downflow economizer only.

# Weights

**Table 88. Maximum Unit & Corner Weights (Lbs) and Center of Gravity Dimensions (in.) Cooling with Optional Electric Heat Units only**

| Tons | Unit Model No. | Weights (Lbs)[a],[b] | | Corner Weights[c] | | | | Center of Gravity (in.) | |
|---|---|---|---|---|---|---|---|---|---|
| | | Shipping | Net | A | B | C | D | Length | Width |
| 12½ | TC*150D/TC*151C | 1687/1820 | 1319/1452 | 446/485 | 339/360 | 230/259 | 303/348 | 46/45 | 29/30 |
| | TCD151C (Reheat Units) | 1864 | 1496 | 496 | 371 | 270 | 359 | 45 | 30 |
| 15 | TC*180B/TC*181C | 1866/2361 | 1498/1902 | 547/643 | 358/477 | 234/333 | 359/447 | 42/52 | 28/35 |
| | TCD181C (Reheat Units) | 2425 | 1966 | 659 | 493 | 349 | 463 | 52 | 35 |
| 17½ | TC*210C/TC*211C | 2022/2380 | 1654/1921 | 565/643 | 425/495 | 285/341 | 378/442 | 46/53 | 29/35 |
| 20 | TC*240B/TC*241C | 2372/2490 | 1913/2031 | 679/697 | 482/528 | 312/348 | 440/458 | 51/53 | 34/34 |
| | TCD241C (Reheat Units) | 2510 | 2051 | 702 | 533 | 353 | 463 | 53 | 34 |
| 25 | TC*300B/ TC*301C | 2365/2475 | 1906/2016 | 661/695 | 507/524 | 320/343 | 418/454 | 53/53 | 33/34 |

(a) Weights are approximate. Horizontal and downflow unit and corner weights may vary slightly.
(b) Weights do not include additional factory or field installed options/accessories. For option/accessory additional weights, reference Table 90, p. 127 and Table 91, p. 128 to be added to unit weights.
(c) Corner weights are given for information only. 12½-25 ton models must be supported continuously by a curb or equivalent frame support
* Indicates both downflow and horizontal units.

**Figure 28.**

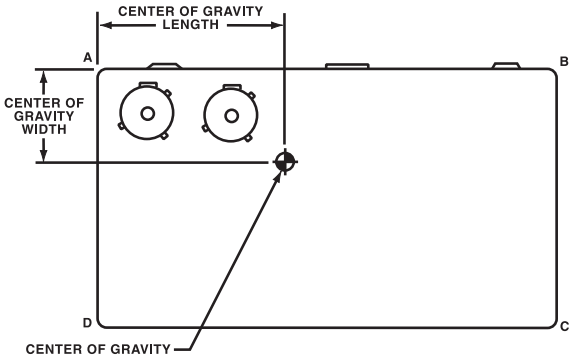



**Table 89. Maximum Unit & Corner Weights (Lbs) and Center of Gravity Dimensions (in.) Gas/Electric Heat Units only**

| Tons | Unit Model No. | Weights (Lbs)[a],[b] | | Corner Weights[c] | | | | Center of Gravity (in.) | |
|---|---|---|---|---|---|---|---|---|---|
| | | Shipping | Net | A | B | C | D | Length | Width |
| 12½ | YC*150D/YC*151C | 1826/1915 | 1458/1547 | 495/523 | 373/383 | 254/271 | 336/370 | 46/45 | 29/30 |
| | YCD151C (Reheat Units) | 1959 | 1591 | 534 | 394 | 282 | 381 | 45 | 30 |
| 15 | YC*180B/YC*181C | 2033/2464 | 1665/2005 | 600/686 | 395/504 | 266/345 | 404/470 | 43/52 | 29/35 |
| | YCD181C (Reheat Units) | 2528 | 2069 | 697 | 515 | 356 | 481 | 52 | 35 |
| 17½ | YC*210C/YC*211C | 2189/2547 | 1821/2088 | 618/701 | 463/538 | 317/369 | 424/480 | 46/53 | 29/35 |
| 20 | YC*240B/YC*241C | 2547/2645 | 2088/2186 | 738/751 | 526/568 | 343/373 | 481/494 | 51/53 | 34/34 |
| | YCD241C (Reheat Units) | 2665 | 2206 | 756 | 573 | 378 | 499 | 53 | 34 |
| 25 | YC*300B/YC*301C | 2541/2650 | 2082/2191 | 721/755 | 552/569 | 351/373 | 458/495 | 53/53 | 33/34 |

(a) Weights are approximate. Horizontal and downflow unit and corner weights may vary slightly.
(b) Weights do not include additional factory or field installed options/accessories. For option/accessory additional weights, reference Table 90, p. 127 and Table 91, p. 128 to be added to unit weights.
(c) Corner weights are given for information only. 12½-25 ton models must be supported continuously by a curb or equivalent frame support.
*Indicates both downflow and horizontal units.

**Table 90. Accessory Net Weights (Lbs)[a],[b]**

| Unit Model No. | Economizer Net | Outside Air Damper | | Power Exhaust[c] | Roof Curb[c] | Oversized Motor Adder | High Static Drive[d] | Low Static Drive[d] | LPG Conversion Kit |
|---|---|---|---|---|---|---|---|---|---|
| | | Manual | Motorized | | | | | | |
| T/YCD150D,180B T/YCD151C, TCD210C | 65 | 32 | 60 | 95 | 205 | 5 | 2 | 2 | 5 |
| T/YCD240B T/YCD181,211,241C | 80 | 32 | 75 | 95 | 235 | 5 | 2 | — | 5 |
| T/YCD300B,301C | 80 | 32 | 75 | 95 | 235 | N/A | N/A | 2 | 5 |
| T/YCH150D, 180B, 210C T/YCH151C | 50 | 32 | 60 | — | — | 5 | 2 | 2 | 5 |
| T/YCH240B T/YCH181,211,241C | 65 | 32 | 75 | — | — | 5 | 2 | — | 5 |
| T/YCH300B,301C | 65 | 32 | 75 | — | — | N/A | N/A | 2 | 5 |

**Continued**

| Unit Model No. | All Zone Sensors | Electric Heaters 240/480 V[e] [f] | | | |
|---|---|---|---|---|---|
| | | 6-23 kW | 27-36 kW | 54 kW | 72kW |
| T/YCD150D, 180B, 210C T/YCD151,181C | 1 | 28/21[g] | 31/27 | 38/32 | — |
| T/YCD240B T/YCD211,241C | 1 | — | 33/27 | 40/32 | 43/34 |
| T/YCD300B,301C | 1 | — | 33/27 | 40/32 | 43/34 |
| T/YCH150D, 180B, 210C T/YCH151,181C | 1 | 28/21[g] | 31/27 | 38/32 | — |
| T/YCH240B T/YCH211, 241C | 1 | — | 33/27 | 40/32 | 43/34 |
| T/YCH300B, 301C | 1 | — | 33/27 | 40/32 | 43/34 |

(a) Net weight should be added to unit weight when ordering factory installed accessories.
(b) TC*150-300 factory installed options for economizers, multiply net capacity x .99, EER x .97. For oversized motors, multiply net capacity x .98, EER x .93. This is provided in compliance with ARI certification program.
(c) Downflow only.
(d) Not available on all models (See Fan Performance tables for specific models).
(e) For 600V heaters net weights are same as 480V heaters.
(f) To estimate shipping weight add 5 lbs to net weight.
(g) 9 - 23 KW Heaters not available for TC*210C.

## Weights

### Table 91. Factory Installed Options (FIOPS) Net Weights[a],[b],[c]

| Accessory | Weight | Unit Model Number |
|---|---|---|
| High Efficiency Motors[d] | 49 | T/YC*150-181 standard size motor |
| | 36 | T/YC*210-241 standard size motor |
| | | T/YC*150-181 oversize motor |
| | 0 | T/YC*210-241 oversize motor |
| | | T/YC*300-301 standard size motor |
| Hinged Doors | 27 | All T/YC* units |
| Powered Convenience Outlet | 38 | All T/YC* units |
| Through the Base Electrical | 23 | All T/YC* units |
| Unit Mounted Circuit Breaker | 5 | All T/YC* units except those with 54&72 kW heaters & 208/230V |
| | 10 | All T/YC* units with 54&72 kW heaters & 208/230V |
| Unit Mounted Disconnect | 5 | All T/YC* units except those with 54&72 kW heaters & 208/230V |
| | 10 | All T/YC* units with 54&72 kW heaters & 208/230V |
| Smoke Detectors Supply/Return | 5 | All T/YC* units |
| Stainless Steel Heat Exchanger | 50 (150 MBh) | YC*150,151 low heat |
| | 50 (250 MBh) | YC*150,151 high heat |
| | 75 (350 MBh) | YC*180,181,210,211,240,241,300,301 low heat |
| | | YC*180,181,210,211 high heat |
| | 75 (400 MBh) | YC*240,241,300,301 high heat |
| Tool-less Hail Guard | 38 | T/YC*150,151,180,210 |
| | 43 | T/YC*181,211,240,241,300,301 |
| Novar 2024 | 7 | All T/YC* units |
| Novar 3051 | 5 | All T/YC* units |

(a) Weights for FIOP accessories not listed are >5 lbs.
(b) Net weight should be added to unit weight when ordering factory installed accessories.
(c) See Table 90, p. 127 for standard factory installed economizer and oversized motors.
(d) Standard factory installed motors are already included in unit net and shipping weights. Values shown for high efficiency motors are in addition to the standard motor weight.
* Indicates both downflow and horizontal units.

# Mechanical Specifications

## General

The units shall be dedicated downflow or horizontal airflow. The operating range shall be between 115°F and 0°F in cooling as standard from the factory for all units. Cooling performance shall be rated in accordance with ARI testing procedures.

All units shall be factory assembled, internally wired, fully charged with R-22, and 100 percent run tested to check cooling operation, fan and blower rotation and control sequence, before leaving the factory.

Wiring internal to the unit shall be colored and numbered for simplified identification. Units shall be UL listed and labeled, classified in accordance to UL 1995/CAN/CSA No. 236-M90 for Heat Pumps. Canadian units shall be CSA Certified.

## Casing

Unit casing shall be constructed of zinc coated, heavy gauge, galvanized steel. Exterior surfaces shall be cleaned, phosphatized, and finished with a weather-resistant baked enamel finish.

Unit's surface shall be tested 500 hours in a salt spray test in compliance with ASTM B117. Cabinet construction shall allow for all maintenance on one side of the unit. In order to ensure a water and air tight seal, service panels shall have lifting handles and no more than three screws to remove.

All exposed vertical panels and top covers in the indoor air section shall be insulated with a 1/2 inch, 1 pound density foil-faced, fire-resistant, permanent, odorless, glass fiber material. The base of the downflow unit shall be insulated with 1/2 inch, 1 pound density foil-faced, closed-cell material.

The downflow unit's base pan shall have no penetrations within the perimeter of the curb other than the raised 11/8 inch high supply/return openings to provide an added water integrity precaution, if the condensate drain backs up.

The base of the unit shall have provisions for forklift and crane lifting.

## Unit Top

The top cover shall be one piece, or where seams exist, double hemmed and gasket sealed to prevent water leakage.

## Filters

Two inch standard filters shall be factory supplied on all units. Optional two inch pleated media filters shall be available.

## Compressors

All units shall have direct-drive, hermetic, scroll type compressors with centrifugal type oil pumps. Motor shall be suction gas-cooled and shall have a voltage utilization range of plus or minus 10 percent of nameplate voltage.

Internal overloads shall be provided with the scroll compressors. All models shall have crankcase heaters, low and high pressure control as standard.

## Crankcase Heaters

These band heaters provide improved compressor reliability by warming the oil to prevent migration during off-cycles or low ambient conditions. These are standard on all Voyager Packaged Rooftop models.

## Refrigerant Circuits

Each refrigerant circuit shall have independent fixed orifice or thermostatic expansion devices, service pressure ports, and refrigerant line filter driers factory installed as standard. An area shall be provided for replacement suction line driers.

## Evaporator and Condenser Coils

Internally finned, 3/8" copper tubes mechanically bonded to a configured aluminum plate fin shall be standard. Coils shall be leak tested at the factory to ensure the pressure integrity.

The evaporator coil and condenser coil shall be leak tested to 200 psig and pressure tested to 450 psig. All dual compressor units shall have intermingled evaporator coils. Sloped condensate drain pans are standard.

Patent-pending 1+1+1 condenser coils, permanently gapped for easy cleaning.

## Gas Heating Section

The heating section shall have a drum and tube heat exchanger design using corrosion resistant steel components. A forced combustion blower shall supply premixed fuel to a single burner ignited by a pilotless hot surface ignition system.

In order to provide reliable operation, a negative pressure gas valve shall be used on standard furnaces, and a pressure switch on furnaces with modulating heat that requires blower operation to initiate gas flow.

On an initial call for heat, the combustion blower shall purge the heat exchanger 45 seconds before ignition. After three unsuccessful ignition attempts, the entire heating system shall be locked out until manually reset at the thermostat.

Units shall be suitable for use with natural gas or propane (field installed kit) and shall also comply with California requirements for low NOx emissions. The 12½-25 tons shall have two stage heating (Gas/ Electric Only).

## Outdoor Fans

The outdoor fan shall be direct-drive, statically and dynamically balanced, draw-through in the vertical discharge position. The fan motor(s) shall be permanently lubricated and shall have built-in thermal overload protection.

## Indoor Fan

Units above shall have belt driven, FC centrifugal fans with adjustable motor sheaves. Units with standard motors shall have an adjustable idler-arm assembly for quick-adjustment of fan belts and motor sheaves. All motors shall be thermally protected. Oversized motors shall be available for high static application.

All indoor fan motors meet the U.S. Energy Policy Act of 1992 (EPACT).

## Controls

Unit shall be completely factory wired with necessary controls and contactor pressure lugs or terminal block for power wiring. Unit shall provide an external location for mounting a fused disconnect device. ReliaTel controls shall be provided for all 24 volt control functions.

The resident control algorithms shall make all heating, cooling, and/or ventilating decisions in response to electronic signals from sensors measuring indoor and outdoor temperatures. The control algorithm maintains accurate temperature control, minimizes drift from set point, and provides better building comfort.

A centralized control shall provide anti-short cycle timing and time delay between compressors to provide a higher level of machine protection.

### Defrost Controls

Adaptive demand defrost shall be provided to permit defrost wherever coil icing conditions begin to significantly reduce unit capacity.

## Factory Installed Options

### Black Epoxy Coated Pre-Coated Coils

The black epoxy coils have a thermoset vinyl coating that is bonded to the aluminum fin stock prior to the fin-stamping process. The pre-coated coils are an economical option for protection in mildly corrosive environments.

### Dehumidification Option

The dehumidification (hot gas reheat) option shall provide increased dehumidification. The option shall consist of a hot-gas reheat coil located on the leaving air side of the evaporator coil prepiped and circuited.

Low pressure switch(es) and thermostatic expansion valve(s) TXV are standard. Frostat™ , ReliaTel options module, and 2" pleated filters are required but not standard. They must be ordered and configured separately.

### High Efficiency Motors

This option is available with efficiency ratings from 86.5 up to 91.0. It is not available for all models.

### High Pressure Cutout

This option is offered for units that do not have High Pressure cutout as standard.

### Hinged Access Doors

Sheet metal hinges are available on the Filter, Evaporator, Fan/Motor and the Compressor/Control Access Doors. This option is available on all models.

### Powered or Unpowered Convenience Outlet

This option is a GFCI, 120v/15amp, 2 plug, convenience outlet, either powered or unpowered. When the convenience outlet is powered, a service receptacle disconnect will be available.

The convenience outlet is powered from the line side of the disconnect or circuit breaker, and therefore will not be affected by the position of the disconnect or circuit breaker. This option can only be ordered when the Through the Base Electrical with either the Disconnect Switch, or Circuit Breaker, option is ordered.

This option is available on all downflow models (Gas/Electric Only).

### Stainless Steel Heat Exchanger

Gas heat exchanger shall be of drum and tube design constructed from a minimum 304 Grade stainless steel. The stainless steel heat exchanger shall have a 10-year warranty as standard (Gas/Electric Only).

### Supply and/or Return Air Smoke Detector

With this option installed, if smoke is detected, all unit operation will be shut down. Reset will be manual at the unit. Return Air Smoke Detectors require minimum allowable airflow when used with certain models.

See the Installation, Operation, and Maintenance (IOM) manual for the models affected and the minimum allowable airflow required.

### Through the Base Electrical with Circuit Breaker

This option is a thermal magnetic, molded case, HACR Circuit Breaker with provisions for through the base electrical connections.

The circuit breaker will be installed in a water tight enclosure in the unit with access through a swinging door. Factory wiring will be provided from the switch to the unit high voltage terminal block. The circuit breaker will provide overcurrent protection, be sized per NEC and UL guidelines, and be agency recognized by UL/ CSA.

### Horizontal Side Access with Circuit Breaker

This option is a thermal magnetic, molded case, HACR Circuit Breaker with provisions for through the base electrical connections. The circuit breaker will be installed in a water tight enclosure in the unit with access through a swinging door. Factory wiring will be provided from the switch to the unit high voltage terminal block.

The circuit breaker will provide overcurrent protection, be sized per NEC and UL guidelines, and be agency recognized by UL/CSA.

### Through the Base Electrical with Disconnect Switch

Three-pole, molded case, disconnect switch with provisions for through the base electrical connections are available.

The disconnect switch will be installed in the unit in a water tight enclosure with access through a swinging door.

Factory wiring will be provided from the switch to the unit high voltage terminal block. The switch will be UL/ CSA agency recognized.

*The disconnect switch will be sized per NEC and UL guidelines but will not be used in place of unit overcurrent protection.*

### Horizontal Side Access with Disconnect Switch

Three-pole, molded case, disconnect switch with provisions for through the base electrical connections are available. The disconnect switch will be installed in the unit in a water tight enclosure with access through a swinging door.

Factory wiring will be provided from the switch to the unit high voltage terminal block. The switch will be UL/ CSA agency recognized.

*The disconnect switch will be sized per NEC and UL guidelines but will not be used in place of unit overcurrent protection.*

### Through the Base Utilities Access

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

### Two-Inch Pleated Filters

Two inch pleated media filters shall be available on all models.

### Factory or Field Installed Options

Clogged Filter/Fan Failure Switch

A dedicated differential pressure switch is available to achieve active fan failure indication and/or clogged filter indication. These indications will be registered with either a zone sensor with status indication lights or an Integrated Comfort™ System.

## Differential Pressure Switches

These options allow for individual fan failure and dirty filter indication. The fan failure switch will disable all unit functions and "flash" the Service LED on the zone sensor. The dirty filter switch will light the Service LED on the zone sensor and will allow continued unit operation.

## Discharge Air Sensing Kit

This kit provides true discharge air sensing in heating models. This sensor is a status indicator readable through Tracer™ or Tracker™. The kit is functional only with the ReliaTel Options Module.

## Economizer - Downflow

The assembly includes fully modulating 0-100 percent motor and dampers, barometric relief, minimum position setting, preset linkage, wiring harness with plug, fixed dry bulb and spring return actuator.

The barometric relief damper shall be standard with the downflow economizer and shall provide a pressure operated damper that shall be gravity closing and shall prohibit entrance of outside air during the equipment "off" cycle.

Solid state enthalpy and differential enthalpy control shall be field-installed.

## Electric Heaters

Electric heat modules shall be available for installation within the basic unit. Electric heater elements shall be constructed of heavy-duty nickel chromium elements internally delta connected for 240 volt, wye connected for 480 and 600 volt.

Staging shall be achieved through ReliaTel. Each heater package shall have automatically reset high limit control operating through heating element contactors.

All heaters shall be individually fused from the factory, where required, and shall meet all NEC and CEC requirements when properly installed. Power assemblies shall provide single-point connection. Electric heat modules shall be UL listed or CSA certified.

If ordering the Through the Base Electrical option with an Electric Heater, the heater must be factory installed.

## Frostat

This option is to be utilized as a safety device. The Frostat opens when temperatures on the evaporator coil fall below 10°F. The temperature will need to rise to 50°F before closing.

This option should be utilized in low airflow or high outside air applications (Cooling Only).

## LonTalk® Communications Interface

The LonTalk communications interface, when installed in a Voyager unit, allows the unit to communicate as a Tracer™ LCI-V device or directly with generic LonTalk Network Building Automation System Controls.

## Oversized Motors

Oversized motors shall be available for high static applications.

## Reference or Comparative Enthalpy

Reference Enthalpy is used to measure and communicate outdoor humidity. The unit receives and uses this information to provide improved comfort cooling while using the economizer.

Comparative Enthalpy measures and communicates humidity for both outdoor and return air conditions, and return air temperature. The unit receives and uses this information to maximize use of economizer cooling, and to provide maximum occupant comfort control.

Reference or Comparative Enthalpy option shall be available when a factory or field installed Downflow Economizer is ordered. This option is available on all downflow models.

## Tool-less Hail Guards

Tool-less, hail protection quality coil guards are available for condenser coil protection.

## Trane Communication Interface

This factory or field-installed option shall be provided to interface ReliaTel™ controlled units with the Trane Integrated Comfort™ systems.

## Field Installed Options

$CO_2$ Sensing

The $CO_2$ sensor has the ability to monitor space occupancy levels within the building by measuring the parts per million of $CO_2$ (Carbon Dioxide) in the air. As the $CO_2$ levels increase, the outside air damper modulates to meet the $CO_2$ space ventilation requirements.

## Digital Display Zone Sensor

The Digital LCD (Liquid Crystal Display) zone sensor has the look and functionality of standard zone sensors.

This sensor includes a digital display of set point adjustment and space temperature in F (Fahrenheit) or C (Celsius). Includes FAN and SYSTEM buttons (supports the service functions of the standard sensor). E-squared memory stores last programmed set points.

Requires 24 VAC (Volts AC). This sensor should be utilized with ReliaTel™ controls.

## Dual Thermistor Remote Zone Sensor

This sensor will allow the customer to reduce the total number of remote sensors to obtain space temperature averaging. This sensor should be utilized with ReliaTel controls.

## High Static Drive

The high static drive option shall allow the standard motor on the 12½ and 20 ton units to operate with improved external static capabilities.

## Manual Outside Air Damper

The rain hood and screen shall provide up to 25 percent outside air.

## Motorized Outside Air Dampers

Manually set outdoor air dampers shall provide up to 50 percent outside air. Once set, outdoor air dampers shall open to set position when indoor fan starts. The damper shall close to the full closed position when indoor fan shuts down.

## Powered Exhaust

The powered exhaust shall provide exhaust of return air, when using an economizer, to maintain better building pressurization.

## Roof Curb - Downflow

The roof curb shall be designed to mate with the downflow unit and provide support and a water tight installation when installed properly.

The roof curb design shall allow field-fabricated rectangular supply/ return ductwork to be connected directly to the curb.

Curb design shall comply with NRCA requirements. Curb shall be shipped knocked down for field assembly and shall include wood nailer strips.

### Economizer - Horizontal

The horizontal economizer shall contain the same features as the downflow economizer with the exception of barometric relief.

### Remote Potentiometer

The minimum position setting of the economizer shall be adjusted with this accessory.

### Ventilation Override Accessory

With the Ventilation Override Accessory installed, the unit can be set to transition up to 3 different pre-programmed sequences for Smoke Purge, Pressurization, and Exhaust.

The transition occurs when a binary input on the RTOM is closed (shorted). This would typically be a hard wired relay output from a smoke detector or fire control panel.

### Zone Sensors

This option shall be provided to interface with the Micro equipped Voyagers Packaged Rooftops and shall be available in either manual, automatic, programmable with night setback, with system malfunction lights or remote sensor options.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