



Packaged Heat Pumps

Precedent™
3-10 Tons - 60 Hz





Introduction

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.

With its sleek compact cabinet, rounded corners and beveled top Precedent 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 Precedent.

Precedent features cutting edge technologies: reliable compressors, Trane 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 Precedent Products are built to meet your needs.

It's Hard To Stop A Trane.®



Contents

Introduction	2
Features and Benefits	4
Application Considerations	11
Selection Procedure	12
Model Number Description	13
General Data	14
Performance Data	17
Cooling Performance	17
Fan Performance	20
Heat Performance	29
Controls	37
Electric Power	38
Dimension and Weights	45
Mechanical Specifications	53



Features and Benefits

Factory Installed Options

- Black Epoxy Pre-Coated Coils
- High Pressure Cutout
- Hinged Access Doors
- Phase Monitor
- Powered or Unpowered Convenience Outlet
- Supply and/or Return Air Smoke Detector
- Through the Base Electrical Access
- Through the Base Electrical With Circuit Breaker
- Through the Base Electrical With Disconnect Switch
- Two-Inch Pleated Filters

Factory or Field Installed Options

- Clogged Filter/Fan Failure Switch
- Differential Pressure Switches
- Discharge Air Sensing Kit
- Economizer
- Electric Heaters
- Froststat
- LonTalk® Communications Interface
- Oversized Motors
- Reference or Comparative Enthalpy
- Tool-less Hail Guards
- Trane Communications Interface (TCI)

Field Installed Options

- CO₂ Sensing
- Digital Display Zone Sensor
- Dual Thermistor Remote Zone Sensor
- High Static Drive
- Manual Outside Air Damper
- Motorized Outside Air Dampers
- Powered Exhaust
- Remote Potentiometer
- Roof Curb
- Thermostat
- Ventilation Override Accessory
- Zone Sensor

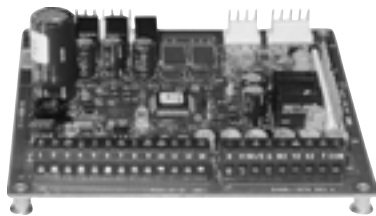
Features and Benefits

Easy to Install, Service and Maintain

Because today's owners are very cost-conscious when it comes to service and maintenance, the Trane Precedent 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. Precedent does this by offering:

Quality and Reliability

ReliaTel™ Controls (LCI-R)



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

Quality and Reliability are enhanced through ReliaTel control and logic:

- 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.

Precedent 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 Precedent 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.

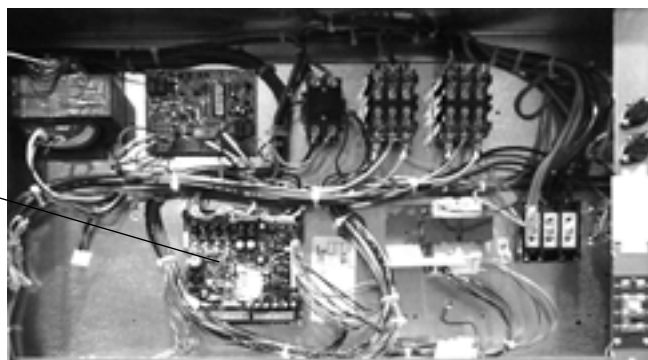
ReliaTel softens electrical "spikes" by staging on fans, compressors and heaters.

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 Precedent Packaged Gas/Electrics, Cooling with Electric Heat, and Heat Pump models. This provides standardization of parts for contractors. Less money is tied up in inventory with ReliaTel.

ReliaTel™





Features and Benefits

Outstanding Standard and Optional Components

Black Epoxy Pre-Coated Coils

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

Cabinet Integrity

For added water integrity, Precedent has a raised $1\frac{1}{8}$ " lip around the supply and return of the downflow units to prevent water from blowing into the ductwork.

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.

CO₂ Sensing

The CO₂ sensor has the ability to monitor space occupancy levels within the building by measuring the parts per million of CO₂ (Carbon Dioxide) in the air. As the CO₂ levels increase, the outside air damper modulates to meet the CO₂ space ventilation requirements. The CO₂ sensor kit is available as a field installed accessory.

Colored And Numbered Wiring

Save time and money tracing wires and diagnosing the unit.

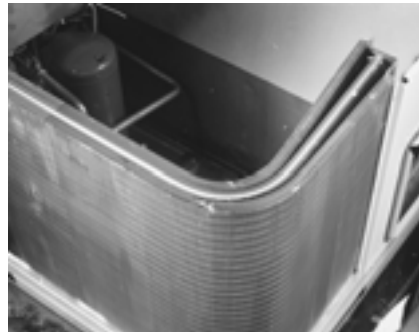
Compressors

Precedent contains the best compressor technology available to achieve the highest possible performance. Our compressor line includes reciprocating and scrolls.



Condenser Coil

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



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.

Discharge Air Sensing Kit

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

Downflow And Horizontal Economizers

The economizers come with three control options — dry bulb is standard, enthalpy and differential enthalpy are optional.

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.

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 fibers get into the airstream.

Factory Built Roof Curbs

Only two roof curbs for the entire Precedent line simplifies curb selection.

Flexibility

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

Fresh Air

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

Features and Benefits

High Pressure Cutout

This factory-installed option is offered for units that do not have High Pressure Cutout as standard. All 3-phase units with scroll compressors include High Pressure cutout as standard.

High Static Drive Accessory

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

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.



LonTalk® Communications Interface

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

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.

Power Exhaust Option

This option is available to maintain proper building pressurization. Great for relieving most building overpressurization problems.

Quick-Access Panels

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

Quick-Adjust Idler Arm

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



Reference or Comparative Enthalpy

Measures and communicates humidity while maximizing comfort control.

Sloped Drain Pans

Every Precedent unit has a non-corrosive, removable, double-sloped drain pan that's easy to clean and reversible to allow installation of drain trap on either side of the unit.



Standardized Components

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

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

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.

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.



Features and Benefits

Unit Cabinet

The compact cabinet with rounded corners takes up less room and is less costly to ship. The beveled and ribbed top is not only aesthetically pleasing, it is designed to prevent water from pooling.



VariTrac

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

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

Available in programmable, automatic and manual styles.

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

Rigorous Testing

All of Precedent'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.

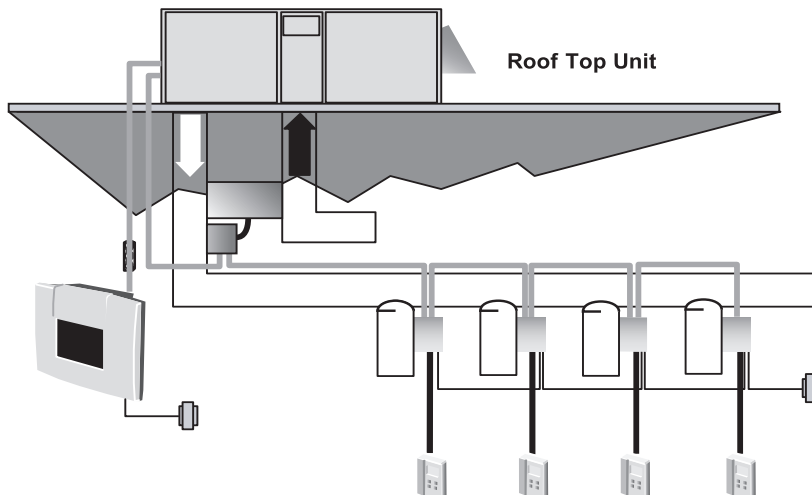
Rigging tests include lifting a unit into the air and letting it drop one foot, assuring that the lifting lugs and rails hold up under stress.

We perform a 100% coil leak test at the factory. The evaporator and condenser coils are leak tested at 200 psig and pressure tested to 450 psig.

All parts are inspected at the point of final assembly. Sub-standard parts are identified and rejected immediately.

Every unit receives a 100% unit run test before leaving the production line to make sure it lives up to rigorous Trane requirements.

VariTrac™

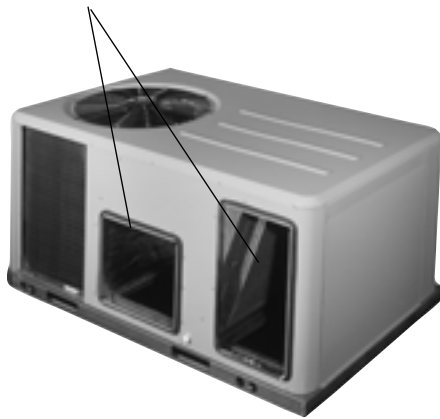


Features and Benefits

Easy to Install

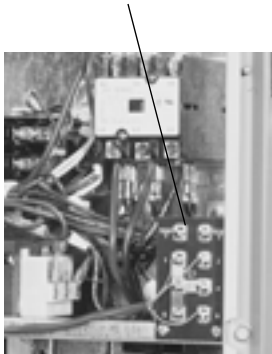
Convertible Units

- The units ship in a downflow configuration. They can be easily converted to horizontal by simply moving two panels.
- Units come complete with horizontal duct flanges so the contractor doesn't have to field fabricate them. These duct flanges are a time and cost saver.



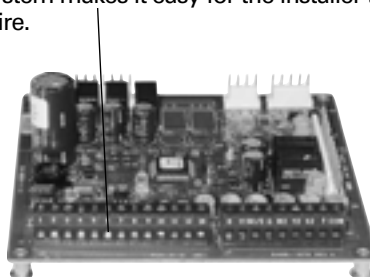
Easy Access Low Voltage Terminal Board

Precedent'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.



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.



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.

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 the Through the Base Electrical with either the Disconnect Switch, or Circuit Breaker, option is ordered.



Single Point Power

A single electrical connection powers the unit.

Single Side Service

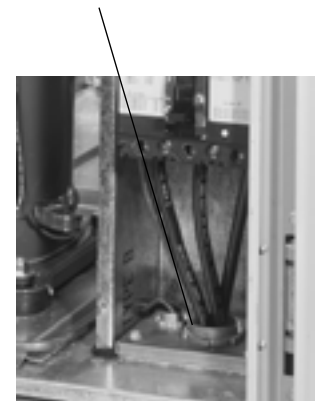
Single side service is standard on all units.

Through the Base Condensate

Every unit includes provisions for through the base condensate drain connections. This allows the drain to be connected through the roof curb instead of a roof penetration.

Through the Base Electrical Utility Access

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.



Through the Base Electrical with Circuit Breaker

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

Features and Benefits

Through the Base Electrical with Disconnect Switch

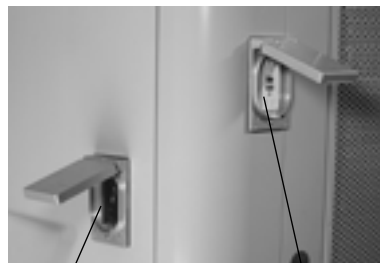
Factory installed 3-pole, molded case, disconnect switch with provisions for through the base electrical connections are available.

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.

Unit Mounted Disconnect or Circuit Breaker

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.



*Unit Mounted Disconnect
or Circuit Breaker*

Convenience Outlet

Factory Installed Options

A wide variety of Factory Installed Options (FIOPs) are available.

Added Efficiency

Airflow

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

Belt or direct drive – standard or oversized supply fan motors meet a wide airflow range.

Cooling

Standard or High Efficiency Cooling available.

Economizer

Equipped with either dry bulb, reference or comparative enthalpy sensing, this feature provides free cooling as the outdoor temperature and/or humidity decreases. Economizers, correctly installed, offer a valuable energy savings. Factory-installed economizers save time and ensure proper installation.

High Efficiency Motors

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

Low Ambient Cooling

All Precedent microprocessor units have cooling capabilities down to 0°F as standard. Electromechanical models have cooling capabilities to 40°F as built, or to 0°F by adding the optional low ambient control (frostat).

Oversized Motors

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

One of our Finest Assets:

Trane Sales Representatives are a Support Group that can assist you with:

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

Precedent has the features and benefits that make it first class in the light commercial rooftop market.

Application Considerations

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

Low Ambient Cooling

The Precedent™ line features, with ReliaTel™ microprocessor controls, low ambient cooling down to 0°F.

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.

NOTE: 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.

Condensate Trap

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

Clearance Requirements

The recommended clearances identified with unit dimensions should be maintained to assure adequate service maximum capacity and peak operating efficiency. Actual clearances which appear inadequate should be reviewed with the local Trane sales personnel.

Unit Pitch

These units have reversible sloped condensate drain pans. Units must be installed level, any unit slope must be toward the side of unit where condensate drain is connected.



Selection Procedures

Cooling Capacity

Step 1

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

Factors used in unit selection:

- A** Total Cooling Load: 59 MBh
- B** Sensible Cooling Load: 40 MBh
- C** Airflow: 2000 cfm
- D** Electrical Characteristics: 460/60/3
- E** Summer Design Conditions: Entering Evaporator Coil: 80 DB, 67 WB Outdoor Ambient: 95
- F** External Static Pressure: 0.36 in. wg
- G** Downflow Configuration
- H** High Efficiency
- I** Economizer

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.

$$59 \text{ MBh} / 12 \text{ MBh} = \text{approx. } 5 \text{ tons}$$

Step 3

Table PD-3 shows that a WSC060A4 has a gross cooling capacity of 63.1 MBh and 47.5 MBh sensible capacity at 2000 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:

External Static (duct system)	0.36 wg
Standard Filter 1 in. from Table PD-23	0.09 wg
Economizer (100% Outside Air) from Table PD-23	0.18 wg
Electric Heater Size 6 kW from Table PD-23	0.056 wg
(reference "Heating Capacity" section on this page for determination of heater size)	
Total Static Pressure	0.69 wg

Note: The Evaporator Fan Performance Table PD-12 has deducted the pressure drop for a 1 in. filter already in the unit (see note below Table PD-12). Therefore, the actual total static pressure is 0.69 - 0.09 (from Table PD-23) = 0.60 wg.

With 2000 cfm and 0.60 wg. Table PD-46 shows .90 bhp for this unit. Note below the table gives a formula to calculate Fan Motor Heat, $2.829 \times \text{bhp} + .4024 = \text{MBH}$. $2.829 \times .90 + .4024 = 2.95 \text{ MBH}$.

Now subtract the fan motor heat from the gross cooling capacity of the unit:
 Net Total Cooling Capacity = 63.1 MBH - 2.95 = 60.15 MBH.
 Net Sensible Cooling Capacity = 47.5 MBH - 2.95 = 44.55 MBH.

Step 5

Compare results to original load requirements. If the performance will not meet the building's required total or sensible cooling load, try a selection at the next higher size unit.

Heating Capacity

Step 1

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

Step 2

Size the equipment using Table PD-31 to match the heating loads at design conditions.

- A** Total heating load: 50 MBH
- B** Outdoor Ambient (Winter) 17 DB
- C** Indoor Return Temperature: 70 DB
- D** Airflow: 2000 cfm

Use the integrated portion of Table PD-31 for the WSC060A4 to determine capacity at winter design conditions. The mechanical heating portion of the heat pump will provide 32.7 MBh.

Step 3

Because 32.7 is less than the building's required heating capacity at winter design conditions, a supplementary heater must be selected.

$$50 \text{ MBh} - 32.7 \text{ MBh} = 17.3 \text{ MBh}$$

The auxiliary electric heat capacities are listed in Table PD-38. From the table, a 6 kW heater will deliver 20.48 MBH at 480 volts. In order to determine capacity at 460 volts, the heater voltage correction factor from Table PD-39 must be used. Therefore, $20.48 \text{ MBH} \times .918$ (voltage correction factor) = 18.80 MBH. A 6kW heater should be selected.

Air Delivery Selection

External static pressure drop through the air distribution system has been calculated to be 0.60 inches of water. Enter Table PD-12 for a WSC060A4 at 2000 cfm and 0.60 static pressure. The belt drive motor will give the desired airflow at a rated bhp of 0.90 and 998 rpm.



Model Number Description

W S C 036 A 3 R B A ** C 0 0 0 A 1 0 0 0 1 A 1
 1 2 3 4,5,6 7 8 9 10 11 12,13 14 15 16 17 18 19 20 21 22 23 24 25

DIGIT 1 - Unit Function

W = Packaged Heat Pump

DIGIT 2 - Efficiency

S = Standard Efficiency

DIGIT 3 - Airflow

C = Convertible

DIGITS 4,5,6 - Nominal Gross Cooling Capacity (MBh)

036 = 3 Ton
 048 = 4 Ton
 060 = 5 Ton
 072 = 6 Ton
 090 = 7½ Ton
 120 = 10 Ton

DIGIT 7 - Major Design Sequence

A = First

DIGIT 8 - Unit Voltage

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

DIGIT 9 - Unit Controls

R = ReliaTel™ Microprocessor

DIGIT 10 - Electric Heater

0 = No Electric Heater
 A = 5 kw (1 phase)
 B = 6 kw (3 phase)
 D = 10 kw (1 phase)
 E = 12 kw (3 phase)
 F = 14 kw (1 phase)
 G = 18 kw (1 and 3 phase)
 J = 23 kw (3 phase)
 K = 27 kw (3 phase)
 N = 36 kw (3 phase)
 P = 54 kw (3 phase)

DIGIT 11 - Minor Design Sequence

A = First Sequence

DIGITS 12,13 - Service Sequence

** = Factory Assigned

DIGIT 14 - Fresh Air Selection

0 = No Fresh Air
 A = Manual Outside Air Damper 0-50%
 B = Motorized Outside Air Damper 0-50%
 C = Economizer, Dry Bulb 0-100% without Barometric Relief
 D = Economizer, Dry Bulb 0-100% with Barometric Relief
 E = Economizer, Reference Enthalpy 0-100% without Barometric Relief
 F = Economizer, Reference Enthalpy 0-100% with Barometric Relief
 G = Economizer, Comparative Enthalpy 0-100% without Barometric Relief
 H = Economizer, Comparative Enthalpy 0-100% with Barometric Relief

DIGIT 15 - Supply Fan/Drive Type/Motor

0 = Standard Drive
 1 = Oversized Motor
 2 = Optional Belt Drive Motor

DIGIT 16 - Hinged Service Access/Filters

0 = Standard Panels/Standard Filters
 A = Hinged Access Panels/Standard Filters
 B = Standard Panels/2" Pleated Filters
 C = Hinged Access Panels/2" Pleated Filters

DIGIT 17 - Condenser Coil Protection

0 = Standard Coil
 1 = Standard Coil with Hail Guard
 2 = Epoxy Coated Condenser Coil
 3 = Epoxy Coated Condenser Coil with Hail Guard

DIGIT 18 - Through the Base Provisions

0 = No Through the Base Provisions
 A = Through the Base Electric

DIGIT 19 - Disconnect/Circuit Breaker/Phase Monitor (3 phase only)

0 = No Disconnect/No Circuit Breaker/No Phase Monitor
 1 = Unit Mounted Non-Fused Disconnect
 2 = Unit Mounted Circuit Breaker
 3 = Phase Monitor
 4 = Phase Monitor & Non-Fused Disconnect Switch
 5 = Phase Monitor & Circuit Breaker

DIGIT 20 - Convenience Outlet

0 = No Convenience Outlet
 A = Unpowered Convenience Outlet
 B = Powered Convenience Outlet (3 phase only)

DIGIT 21 - Communications Options

0 = No Communications Interface
 1 = Trane Communications Interface
 2 = LonTalk® Communications Interface

DIGIT 22 - Refrigeration System Option

0 = Standard Refrigeration System

DIGIT 23 - Refrigeration Controls

0 = No Refrigeration Control
 1 = High Pressure Control
 2 = Froststat
 3 = Crankcase Heater
 4 = High Pressure Control and Froststat
 5 = High Pressure Control and Crankcase Heater
 6 = Froststat and Crankcase Heater
 7 = High Pressure Control, Froststat and Crankcase Heater

DIGIT 24 - Smoke Detector

0 = No Smoke Detector
 A = Return Air Smoke Detector
 B = Supply Air Smoke Detector
 C = Supply and Return Air Smoke Detectors

DIGIT 25 - Monitoring Controls

0 = No Monitoring Control
 1 = Clogged Filter Switch
 2 = Fan Failure Switch
 3 = Discharge Air Sensing Tube
 4 = Clogged Filter Switch and Fan Fail Switch
 5 = Clogged Filter Switch and Discharge Air Sensing Tube
 6 = Fan Fail Switch and Discharge Air Sensing Tube
 7 = Clogged Filter and Fan Fail Switches and Discharge Air Sensing Tube

Example:

Model number WSC036A3RBA##C000A10001A0 describes a unit with the following characteristics: Packaged Heat Pump, 3 ton nominal cooling capacity, 208-230/60/3 power supply, ReliaTel™ controls, 6 kw electric heater model, 0-100% dry bulb economizer without barometric relief, standard direct drive motor, standard access panels/filters, standard condenser coil with no coil protection, through the base electric access, non-fused disconnect, no convenience outlet or communications interface, standard refrigeration coil, high pressure control, return air smoke detector, and clogged filter switch.



General Data

(3, 4 Ton)

Table GD-1 – General Data

	3Ton Convertible Units		4Ton Convertible Units	
	WSC036A1	WSC036A3,A4,AW	WSC048A1	WSC048A3,A4,AW
Cooling Performance¹				
Gross Cooling Capacity	38,100	38,100	50,800	50,800
SEER ²	9.80	10.20	10.50	10.70
Nominal CFM / ARI Rated CFM	1,200 / 1,200	1,200 / 1,200	1,600 / 1,600	1,600 / 1,600
ARI Net Cooling Capacity	36,600	36,000	48,500	48,500
Integrated Part Load Value	—	—	—	—
System Power (KW)	4.09	3.96	5.16	5.05
Heating Performance¹				
High Temp. Btuh Rating	35,000	35,000	47,000	47,000
System Power KW	3.46	3.35	4.68	4.53
Low Temp. Btuh Rating	18,600	18,600	28,800	28,800
System Power KW	2.78	2.65	4.14	4.02
HSPF(Btu/Watts-hr)	6.75	6.95	6.80	6.90
Compressor				
No./Type	1/Recip.	1/Recip.	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)³				
	82	82	85	85
Outdoor Coil — Type				
	Lanced	Lanced	Lanced	Lanced
Tube Size (in.) OD	.3125	.3125	.3125	.3125
Face Area (sq ft)	9.59	9.59	9.59	9.59
Rows/FPI	2/17	2/17	3/17	3/17
Refrigerant Control	Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve
Indoor Coil — Type				
	Lanced	Lanced	Lanced	Lanced
Tube Size (in.)	.3125	.3125	.3125	.3125
Face Area (sq ft)	6.17	6.17	6.68	6.68
Rows/FPI	3/16	3/16	3/16	3/16
Refrigerant Control	Short Orifice	Short Orifice	Short Orifice	Short Orifice
Drain Connection No./Size (in.)	1/4 NPT	1/4 NPT	1/4 NPT	1/4 NPT
Outdoor Fan — Type				
	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter (in.)	1/22	1/22	1/22	1/22
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM	2,950	2,950	3,200	3,200
No. Motors/HP	1/.25	1/.25	1/.40	1/.40
Motor RPM	1,075	1,075	1,075	1,075
Direct Drive Indoor Fan — Type				
	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used	1	1	1	1
Diameter x Width (in.)	10 x 10	10 x 10	11 x 11	11 x 11
Drive Type/No. Speeds	Direct/2	Direct/2	Direct/2	Direct/2
No. Motors	1	1	1	1
Motor HP (Standard/Oversized)	.33/.50	.33/.50	.60/.80	.60/.80
Motor RPM (Low/High Speed)	950/1,060	950/1,060	930/1,000	930/1,000
Oversized Motor RPM (Low/High Speed)	1,100/1,145	1,100/1,145	1,000/1,100	1,000/1,100
Motor Frame Size (Standard/Oversized)	48/48	48/48	48/48	48/48
Belt Drive Indoor Fan — Type				
	—	FC Centrifugal	—	FC Centrifugal
No. Used	—	1	—	1
Diameter x Width (in.)	—	11 x 11	—	11 x 11
Drive Type/No. Speeds	—	Belt/Variable Speed	—	Belt/Variable Speed
No. Motors	—	1	—	1
Motor HP (Standard/Oversized)	—	1.00/ —	—	1.00/ —
Motor RPM (Standard/Oversized)	—	1,750/ —	—	1,750/ —
Motor Frame Size (Standard/Oversized)	—	56/ —	—	56/ —
Filters — Type Furnished⁵				
(No.) Size Recommended (in.)	Throwaway (2) 20 x 25 x 1	Throwaway (2) 20 x 25 x 1	Throwaway (2) 20 x 25 x 1	Throwaway (2) 20 x 25 x 1
Refrigerant Charge (Lbs of R-22)⁴				
	6.5	6.8	9.4	10.2

- Notes:
- Cooling Performance and Heating 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 Air-Source Unitary Heat Pump Equipment certification program, which is based on ARI Standard 210/240.
 - SEER is rated at ARI conditions and in accordance with DOE test procedures.
 - Outdoor Sound Rating shown is tested in accordance with ARI Standard 270. For more information refer to Table PD-25.
 - Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.
 - Optional 2 inch pleated filters are also available.



General Data

(5, 6 Ton)

Table GD-2 — General Data

	5Ton Convertible Units		6Ton Convertible Units
	WSC060A1	WSC060A3,A4,AW	WSC072A3,A4,AW
Cooling Performance¹			
Gross Cooling Capacity	63,100	63,100	74,000
EER/SEER ²	— /9.70	— /10.10	10.6/ —
Nominal CFM / ARI Rated CFM	2,000/2,000	2,000/2,000	2,400/2,100
ARI Net Cooling Capacity	60,000	60,000	70,000
Integrated Part Load Value	—	—	—
System Power (KW)	6.90	6.74	6.6
Heating Performance¹			
High Temp. Btuh Rating	59,000	59,000	68,000
System Power KW/COP	5.96/ —	5.76/ —	6.04/3.3
Low Temp. Btuh Rating	36,200	36,200	38,000
System Power KW/COP	5.30/ —	5.05/ —	5.06/2.2
HSPF (Btu/Watts-hr)	6.96	7.00	—
Compressor			
No./Type	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)³			
	85	85	90
Outdoor Coil — Type			
	Lanced	Lanced	Lanced
Tube Size (in.) OD	.3125	.3125	.3125
Face Area (sq ft)	9.59	9.59	17.00
Rows/FPI	3/17	3/17	2/17
Refrigerant Control	Expansion Valve	Expansion Valve	Expansion Valve
Indoor Coil — Type			
	Lanced	Lanced	Lanced
Tube Size (in.)	.3125	.3125	.3125
Face Area (sq ft)	6.68	6.68	9.89
Rows/FPI	3/16	3/16	3/16
Refrigerant Control	Short Orifice	Short Orifice	Short Orifice
Drain Connection No./Size (in.)	1/4 NPT	1/4 NPT	1/4 NPT
Outdoor Fan — Type			
	Propeller	Propeller	Propeller
No. Used/Diameter (in.)	1/22	1/22	1/26
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1
CFM	3,200	3,200	6,200
No. Motors/HP	1/40	1/40	1/70
Motor RPM	1,075	1,075	1,075
Direct Drive Indoor Fan — Type			
	FC Centrifugal	FC Centrifugal	—
No. Used	1	1	—
Diameter x Width (in.)	11 x 11 ⁵	11 x 11 ⁵	—
Drive Type/No. Speeds	Direct/2	Direct/2	—
No. Motors	1	1	—
Motor HP (Standard/Oversized)	.90/1.00	.90/1.00	—
Motor RPM (Low/High Speed)	985/1,100	985/1,100	—
Oversized Motor RPM (Low/High Speed)	1,080/1,135	1,080/1,135	—
Motor Frame Size (Standard/Oversized)	48/48	48/48	—
Belt Drive Indoor Fan — Type			
	—	FC Centrifugal	FC Centrifugal
No. Used	—	1	1
Diameter x Width (in.)	—	11 x 11	12 x 12
Drive Type/No. Speeds	—	Belt/Variable Speed	Belt/Variable Speed
No. Motors	—	1	1
Motor HP (Standard/Oversized)	—	1.00/ —	1.00/2.00
Motor RPM (Standard/Oversized)	—	1,750/ —	1,750/1,750
Motor Frame Size (Standard/Oversized)	—	56/ —	56/56
Filters — Type Furnished⁶			
(No.) Size Recommended (in.)	Throwaway (2) 20 x 25 x 1	Throwaway (2) 20 x 25 x 1	Throwaway (4) 16 x 25 x 2
Refrigerant Charge (Lbs of R-22)⁴			
	7.9	8.5	8.2

Notes:

- Cooling Performance and Heating 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 Air-Source Unitary Heat Pump Equipment certification program, which is based on ARI Standard 210/240.
- SEER is rated at ARI conditions and in accordance with DOE test procedures.
- Outdoor Sound Rating shown is tested in accordance with ARI Standard 270. For more information refer to Table PD-25.
- Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.
- Fan Diameter with oversized motor is 12 x 11.
- Optional 2 inch pleated filters are also available.



General Data

(7½, 10 Ton)

Table GD-3 – General Data

	7½ Ton Convertible Units WSC090A3, A4, AW	10 Ton Convertible Units WSC120A3, A4, AW
Cooling Performance¹		
Gross Cooling Capacity	93,000	121,000
EER ²	10.1	10.1
Nominal CFM / ARI Rated CFM	3,000/2,625	4,000/3,200
ARI Net Cooling Capacity	88,000	113,000
Integrated Part Load Value	—	10.7
System Power (KW)	8.71	11.19
Heating Performance¹		
High Temp. Btuh Rating	88,000	108,000
System Power KW/COP	8.06/ 3.2	9.59/3.3
Low Temp. Btuh Rating	50,000	59,000
System Power KW/COP	6.66/2.2	7.86/2.2
HSPF (Btu/Watts-hr)	—	—
Compressor		
No./Type	1/Scroll	2/Scrolls
Outdoor Sound Rating (dB)³		
	90	88
Outdoor Coil – Type		
	Lanced	Lanced
Tube Size (in.) OD	.3125	.3125
Face Area (sq ft)	17.00	19.83
Rows/FPI	3/17	3/17
Refrigerant Control	Expansion Valve	Expansion Valve
Indoor Coil – Type		
	Lanced	Lanced
Tube Size (in.)	.3125	.3125
Face Area (sq ft)	9.89	12.36
Rows/FPI	4/16	4/16
Refrigerant Control	Short Orifice	Short Orifice
Drain Connection No./Size (in.)	1¾ NPT	1¾ NPT
Outdoor Fan – Type		
	Propeller	Propeller
No. Used/Diameter (in.)	1/26	1/26
Drive Type/No. Speeds	Direct/1	Direct/1
CFM	6,400	6,700
No. Motors/HP	1/.70	1/.75
Motor RPM	1,075	1,075
Belt Drive Indoor Fan – Type		
	FC Centrifugal	FC Centrifugal
No. Used	1	1
Diameter x Width (in.)	12 x 12	15 x 15
Drive Type/No. Speeds	Belt/Variable Speed	Belt/Variable Speed
No. Motors	1	1
Motor HP (Standard/Oversized)	1.00/3.00	2.00/ 5.00
Motor RPM (Standard/Oversized)	1,750/1,750	1,750/3,450
Motor Frame Size (Standard/Oversized)	56/56	56/56
Filters – Type Furnished⁵		
	Throwaway	Throwaway
(No.) Size Recommended (in.)	(4) 16 x 25 x 2	(4) 20 x 25 x 2
Refrigerant Charge (Lbs of R-22)⁴		
	12.2	7.9 Circuit #1/7.9 Circuit #2

- Notes:
- Cooling Performance and Heating 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 Air-Source Unitary Heat Pump Equipment certification program, which is based on ARI Standard 210/240.
 - SEER is rated at ARI conditions and in accordance with DOE test procedures.
 - Outdoor Sound Rating shown is tested in accordance with ARI Standard 270. For more information refer to Table PD-25.
 - Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.
 - Optional 2 inch pleated filters are also available.



Performance Data

(3, 4 Ton)

Table PD-1 — Gross Cooling Capacities (MBH) 3 Ton Single/Three Phase WSC036A1, A3, A4, AW

		Ambient Temperature (F)																							
		85				95				105				115											
CFM Airflow	Enter. Dry Bulb (F)	Entering Wet Bulb (F)																							
		61		67		73		61		67		73		61		67		73							
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC						
1080	75	34.7	28.9	39.7	22.6	42.4	15.3	31.6	27.3	37.1	21.4	41.0	14.4	28.5	25.6	33.8	19.8	39.0	13.3	25.3	24.0	30.2	18.2	36.1	12.0
	80	35.4	34.8	39.8	28.1	42.9	21.0	32.5	32.5	37.2	26.8	41.3	20.0	29.9	29.9	33.9	25.2	39.1	18.9	27.4	27.4	30.4	23.6	36.2	17.6
	85	37.7	37.7	40.1	33.5	43.4	26.1	35.3	35.3	37.6	32.4	41.5	25.3	32.7	32.7	34.4	30.8	39.3	24.4	30.1	30.1	31.0	29.2	36.3	23.1
	90	40.0	40.0	40.7	38.9	43.9	31.0	38.0	38.0	38.3	38.1	41.9	30.4	35.6	35.6	35.6	35.6	39.5	29.8	32.9	32.9	32.9	32.9	36.6	28.6
1200	75	35.7	30.8	40.3	23.5	42.7	15.5	32.5	29.2	37.9	22.3	41.4	14.6	29.3	27.5	34.6	20.8	39.4	13.6	26.2	25.9	30.9	19.1	36.8	12.4
	80	36.6	36.6	40.5	29.5	43.3	21.9	34.1	34.1	38.1	28.5	41.7	20.9	31.4	31.4	34.8	26.9	39.7	19.8	28.7	28.7	31.2	25.3	36.9	18.5
	85	39.3	39.3	40.9	35.4	43.9	26.9	37.0	37.0	38.5	34.6	42.0	26.3	34.4	34.4	35.4	33.2	39.8	25.7	31.7	31.7	32.0	31.6	37.0	24.6
	90	41.4	41.4	41.6	41.2	44.4	32.2	39.6	39.6	39.6	42.5	31.8	37.3	37.3	37.3	37.3	40.2	31.6	34.6	34.6	34.6	34.6	34.6	37.3	30.6
1320	75	36.6	32.7	40.7	24.5	43.0	15.8	33.4	31.0	38.5	23.3	41.7	14.9	30.2	29.4	35.3	21.8	39.8	13.8	26.9	26.9	31.5	20.1	37.2	12.7
	80	38.1	38.1	41.0	30.7	43.6	22.6	35.5	35.5	38.7	30.0	42.1	21.6	32.8	32.8	35.6	28.6	40.1	20.6	30.0	30.0	31.9	26.9	37.4	19.4
	85	40.4	40.4	41.5	37.0	44.2	29.4	38.4	38.4	39.3	36.7	42.6	27.5	35.9	35.9	36.4	35.5	40.3	26.9	33.0	33.0	33.0	33.0	37.6	26.0
	90	42.4	42.4	42.4	42.4	44.8	33.2	40.8	40.8	40.8	40.8	42.9	33.1	38.7	38.7	38.7	38.7	40.8	33.2	36.1	36.1	36.1	36.1	38.0	32.6
1440	75	37.3	34.5	41.0	25.1	43.3	16.0	34.2	32.9	38.9	24.3	41.9	15.1	30.8	30.8	35.8	22.8	40.1	14.1	27.9	27.9	32.0	21.2	37.6	13.0
	80	39.2	39.2	41.4	31.9	43.9	23.4	36.8	36.8	39.2	31.5	42.4	22.1	34.0	34.0	36.2	30.2	40.4	21.4	31.1	31.1	32.6	28.6	37.8	20.2
	85	41.3	41.3	42.0	38.5	44.5	28.2	39.5	39.5	40.0	38.6	42.9	28.2	37.1	37.1	37.1	37.1	40.7	28.0	34.3	34.3	34.3	34.3	38.0	27.3
	90	43.1	43.1	43.1	43.1	45.1	34.1	41.7	41.7	41.7	41.7	43.3	34.3	39.7	39.7	39.7	41.3	34.7	37.3	37.3	37.3	37.3	37.3	38.6	34.4

Notes:

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

Table PD-2 — Gross Cooling Capacities (MBH) 4 Ton Single/Three Phase WSC048A1, A3, A4, AW

		Ambient Temperature (F)																							
		85				95				105				115											
CFM Airflow	Enter. Dry Bulb (F)	Entering Wet Bulb (F)																							
		61		67		73		61		67		73		61		67		73							
		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC						
1440	75	45.9	38.6	52.2	29.8	55.3	20.0	42.3	36.5	49.6	28.8	54.2	19.0	38.5	34.5	45.8	26.5	52.4	17.8	34.7	32.5	41.5	25.0	49.5	16.4
	80	47.0	46.5	52.4	37.2	55.9	27.7	43.6	43.6	49.8	35.9	54.7	26.7	40.5	40.5	45.9	34.0	52.6	25.3	37.3	37.3	41.8	32.0	49.6	23.9
	85	50.1	50.1	52.8	44.4	56.6	34.0	47.4	47.4	50.2	43.4	55.0	33.4	44.3	44.3	46.6	41.6	52.9	32.8	41.1	41.1	42.5	39.6	49.8	31.3
	90	52.9	52.9	53.6	51.5	57.2	40.3	50.9	50.9	51.3	51.1	55.5	40.2	48.1	48.1	48.1	48.1	53.2	39.8	45.0	45.0	45.0	45.0	50.0	38.7
1600	75	47.2	41.1	52.9	31.1	55.7	20.3	43.5	39.1	50.6	29.8	54.7	19.3	39.7	37.0	46.9	28.0	52.9	18.2	35.8	35.0	42.6	25.9	50.3	16.9
	80	48.7	48.7	53.2	38.9	56.4	28.2	45.7	45.7	50.8	38.0	55.2	27.7	42.5	42.5	47.1	36.2	53.3	26.5	39.2	39.2	42.9	34.2	50.4	25.1
	85	51.9	51.9	53.7	46.6	57.1	34.9	49.6	49.6	51.4	46.3	55.6	34.6	46.5	46.5	47.9	44.7	53.5	34.3	43.2	43.2	44.0	42.7	50.6	33.2
	90	54.4	54.4	54.7	54.1	57.8	41.6	52.7	52.7	52.7	52.7	56.1	41.9	50.3	50.3	50.3	50.3	54.0	42.0	47.3	47.3	47.3	47.3	51.0	41.2
1760	75	48.3	43.5	53.3	32.0	56.0	20.6	44.6	41.5	51.3	31.1	55.0	19.6	40.8	39.5	47.7	29.4	53.4	18.5	36.8	36.8	43.4	27.3	50.9	17.2
	80	50.4	50.4	53.8	40.4	56.7	28.6	47.6	47.6	51.5	40.0	55.7	28.4	44.3	44.3	48.1	38.4	53.8	27.5	40.9	40.9	43.9	36.4	51.1	26.2
	85	53.3	53.3	54.5	48.6	57.5	35.6	51.3	51.3	52.3	48.8	56.3	36.1	48.4	48.4	49.2	47.7	54.1	35.7	45.1	45.1	45.1	45.1	51.3	35.0
	90	55.5	55.5	55.5	55.5	58.2	42.8	54.1	54.1	54.1	54.1	56.7	43.4	52.0	52.0	52.0	52.0	54.7	43.9	49.2	49.2	49.2	49.2	51.8	43.6
1920	75	49.3	45.8	53.8	32.9	56.3	20.9	45.7	43.9	51.8	32.3	55.3	20.0	41.9	41.9	48.5	30.7	53.7	18.9	38.1	38.1	44.1	28.6	51.3	17.6
	80	51.7	51.7	54.3	41.7	57.0	29.1	49.1	49.1	52.2	41.7	56.0	28.9	45.9	45.9	48.9	40.5	54.1	28.2	42.4	42.4	44.8	38.5	51.6	27.2
	85	54.3	54.3	55.1	50.3	57.8	36.4	52.6	52.6	53.1	51.1	56.7	37.1	50.0	50.0	50.0	50.0	54.6	37.0	46.8	46.8	46.8	46.8	51.8	36.6
	90	56.3	56.3	56.3	56.3	58.5	43.8	55.1	55.1	55.1	55.1	57.1	44.7	53.2	53.2	53.2	53.2	55.2	45.7	50.7	50.7	50.7	50.7	52.5	45.8

Notes:

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



Performance Data

(5, 6 Ton)

Table PD-3 — Gross Cooling Capacities (MBh) 5 Ton Three Phase WSC060A1,A3, A4, AW

		Ambient Temperature (F)																							
		85				95				105				115											
CFM	Enter. Dry Bulb (F)	Entering Wet Bulb (F)																							
		61		67		73		61		67		73		61		67		73							
Airflow		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC						
1800	75	56.7	48.0	64.9	37.3	68.9	25.0	52.5	45.7	61.6	35.5	67.6	23.9	48.1	43.4	56.8	33.2	65.2	22.5	43.5	41.0	51.4	31.6	60.9	20.6
	80	58.3	58.1	65.1	46.5	69.6	34.5	54.4	54.4	61.7	44.9	68.1	33.3	50.8	50.8	57.0	42.5	65.4	31.8	46.9	46.9	51.7	40.0	61.0	29.8
	85	62.4	62.4	65.6	55.7	70.0	42.1	59.1	59.1	62.3	54.3	68.5	42.0	55.4	55.4	57.8	52.1	65.7	41.1	51.4	51.4	52.7	49.6	61.1	39.0
	90	66.0	66.0	66.7	64.7	70.8	50.1	63.6	63.6	63.6	63.6	69.0	50.5	60.1	60.1	60.1	60.1	66.0	50.0	56.0	56.0	55.9	55.9	61.5	48.3
2000	75	58.3	51.1	65.8	38.9	69.3	25.3	54.0	48.8	62.9	37.3	68.2	24.2	49.5	46.4	58.2	35.0	65.9	22.9	44.8	44.0	52.6	32.5	61.9	21.1
	80	60.5	60.5	66.1	48.7	70.1	35.3	57.0	57.0	63.1	47.5	68.7	34.6	53.1	53.1	58.4	45.3	66.2	33.1	49.0	49.0	53.0	42.7	62.1	31.3
	85	64.7	64.7	66.8	58.5	71.0	43.7	61.8	61.8	63.9	57.9	69.2	43.5	58.0	58.0	59.6	55.9	66.5	43.0	53.8	53.8	54.4	53.4	62.2	41.4
	90	67.9	67.9	68.1	68.0	71.4	51.6	65.8	65.8	65.8	65.8	69.8	52.6	62.7	62.7	62.7	62.7	67.0	52.7	58.6	58.6	58.6	58.6	62.7	51.5
2200	75	59.8	54.1	66.4	40.2	69.6	25.7	55.4	51.8	63.8	38.9	68.6	24.6	50.9	49.4	59.3	36.7	66.4	23.3	46.0	46.0	53.6	34.1	62.7	21.5
	80	62.7	62.7	66.9	50.7	70.5	35.9	59.2	59.2	64.1	50.0	69.0	35.2	55.2	55.2	59.6	47.9	66.8	34.4	50.9	50.9	54.1	45.4	62.9	32.6
	85	66.4	66.4	67.7	61.0	71.4	44.7	64.0	64.0	65.1	61.0	69.8	44.8	60.3	60.3	61.0	59.5	67.2	44.8	55.9	55.9	55.9	55.9	63.0	43.6
	90	69.2	69.2	69.2	69.2	71.9	53.0	67.5	67.5	67.5	70.5	54.5	64.7	64.7	64.7	64.7	67.8	55.1	60.8	60.8	60.8	60.8	63.7	54.5	
2400	75	61.0	56.9	67.0	41.3	69.9	26.0	56.7	54.6	64.6	40.4	68.9	25.0	51.9	51.9	60.2	38.3	66.8	23.7	47.5	47.5	54.4	35.7	63.3	22.0
	80	64.3	64.3	67.5	52.4	70.8	36.4	61.1	61.1	64.9	52.2	69.4	35.9	57.1	57.1	60.6	50.4	67.2	35.4	52.6	52.6	55.1	47.9	63.5	33.9
	85	67.6	67.6	68.5	63.3	71.8	45.6	65.5	65.5	66.1	63.8	70.2	46.0	62.2	62.2	62.2	62.2	67.8	46.4	57.8	57.8	57.8	57.8	63.7	45.6
	90	70.2	70.2	70.2	70.2	72.3	54.3	68.7	68.7	68.7	71.0	56.2	66.2	66.2	66.2	66.2	68.5	57.3	62.6	62.6	62.6	62.6	64.5	57.2	

Notes:

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

Table PD-4 — Gross Cooling Capacities (MBh) 6Ton Three Phase WSC072A3, A4, AW

		Ambient Temperature (F)																							
		85				95				105				115											
CFM	Enter. Dry Bulb (F)	Entering Wet Bulb (F)																							
		61		67		73		61		67		73		61		67		73							
Airflow		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC						
2160	75	67.2	58.4	75.7	44.4	79.1	29.2	62.2	56.0	72.2	43.0	78.1	28.2	57.0	53.5	66.8	40.7	75.9	27.0	51.7	51.0	60.8	38.2	72.1	25.6
	80	69.3	69.3	76.0	55.5	80.0	40.6	65.3	65.3	72.5	54.6	78.6	39.6	61.0	61.0	67.3	52.2	76.2	38.3	56.6	56.6	61.4	49.6	72.2	37.0
	85	74.1	74.1	76.6	66.2	80.8	49.0	70.7	70.7	73.4	66.1	79.4	50.9	66.5	66.5	68.4	63.8	76.4	49.6	62.1	62.1	62.8	61.4	72.4	48.2
	90	77.4	77.4	77.8	76.6	81.7	58.2	75.2	75.2	75.2	80.1	59.8	71.9	71.9	71.9	71.9	77.0	59.9	67.7	67.7	67.7	67.7	72.9	59.4	
2400	75	69.1	62.4	76.5	46.4	79.5	29.7	64.1	59.9	73.6	45.2	78.5	28.7	58.8	57.4	68.4	43.0	76.5	27.4	53.6	53.6	62.2	40.5	73.1	26.1
	80	72.3	72.3	77.0	57.9	80.3	42.3	68.3	68.3	74.0	57.8	79.1	41.2	63.9	63.9	69.0	55.7	76.9	40.0	59.3	59.3	63.0	53.2	73.2	38.7
	85	76.2	76.2	77.8	69.3	81.3	50.1	73.7	73.7	74.9	70.1	79.9	51.0	69.7	69.7	70.4	68.7	77.3	51.5	65.2	65.2	65.2	65.2	73.4	51.0
	90	79.1	79.1	79.1	79.1	82.2	59.7	77.4	77.4	77.4	80.7	61.6	74.6	74.6	74.6	74.6	78.0	62.8	70.9	70.9	70.9	70.9	70.9	74.2	63.0
2640	75	70.7	66.2	77.1	48.4	79.8	30.1	65.8	63.8	74.5	47.2	78.9	29.1	60.5	60.5	69.6	45.2	77.0	27.9	55.7	55.7	63.4	42.7	73.8	26.5
	80	74.4	74.4	77.7	60.0	80.6	43.9	70.9	70.9	75.0	60.7	79.4	42.9	66.5	66.5	70.3	59.1	77.4	41.7	61.7	61.7	64.5	56.7	74.0	40.3
	85	77.8	77.8	78.7	71.9	81.6	51.0	75.7	75.7	76.3	73.7	80.3	52.3	72.4	72.4	72.4	72.4	78.0	53.3	67.9	67.9	67.9	67.9	74.4	53.6
	90	80.1	80.1	80.1	80.1	82.6	61.0	78.9	78.9	78.9	81.2	63.3	76.5	76.5	76.5	76.5	78.8	65.3	73.2	73.2	73.2	73.2	75.3	66.4	
2880	75	72.2	70.0	77.6	48.8	80.0	30.5	67.2	67.2	75.2	49.0	79.1	29.5	62.5	62.5	70.6	47.3	77.3	28.4	57.6	57.6	64.5	44.8	74.3	27.0
	80	75.9	75.9	78.3	61.8	81.0	41.5	73.2	73.2	75.9	63.3	80.1	42.2	68.8	68.8	71.5	62.4	78.0	42.6	63.9	63.9	65.8	60.1	74.6	42.0
	85	78.8	78.8	79.3	74.1	81.9	51.9	77.1	77.1	77.4	76.8	80.7	53.4	74.2	74.2	74.3	74.3	78.5	55.0	70.0	70.0	70.1	70.1	75.1	55.9
	90	80.9	80.9	80.9	80.9	82.9	62.2	79.9	79.9	79.9	81.6	64.8	77.9	77.9	77.9	77.9	79.4	67.5	74.9	74.9	74.9	74.9	76.2	69.4	

Notes:

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



Performance Data

(7½, 10 Ton)

Table PD-5 — Gross Cooling Capacities (MBh) 7½ Ton Three Phase WSC090A3, A4, AW

		Ambient Temperature (F)																							
		85			95			105			115														
CFM	Enter. Dry Bulb (F)	Entering Wet Bulb (F)																							
		61		67		73		61		67		73		61		67		73							
Airflow		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC						
2700	75	84.9	72.7	94.8	55.6	98.6	36.8	78.6	69.6	91.0	53.9	97.7	35.7	72.1	66.4	84.4	51.0	95.3	34.2	65.3	63.2	76.7	47.8	90.8	32.4
	80	86.9	86.9	95.1	68.8	99.8	50.9	81.9	81.9	91.4	67.7	98.8	50.2	76.6	76.6	85.0	64.9	95.8	48.2	70.9	70.9	77.4	61.7	90.9	46.3
	85	92.6	92.6	96.0	81.8	101.0	61.1	88.6	88.6	92.3	81.6	99.7	62.3	83.4	83.4	86.4	79.2	96.0	61.6	77.8	77.8	79.4	76.1	91.2	59.9
	90	96.7	96.7	97.4	94.3	102.1	72.3	94.2	94.2	94.2	100.7	74.5	90.1	90.1	90.1	90.1	96.8	74.4	84.9	84.9	84.9	84.9	91.8	91.8	73.6
3000	75	87.3	77.4	95.9	57.9	99.1	37.3	81.0	74.4	92.5	56.3	98.3	36.2	74.4	71.2	86.3	53.7	96.1	34.8	67.2	67.2	78.5	50.5	92.0	33.0
	80	90.5	90.5	96.3	71.5	100.3	50.7	85.8	85.8	93.0	71.6	99.4	51.2	80.1	80.1	87.0	69.2	96.7	50.3	74.3	74.3	79.6	66.0	92.2	48.4
	85	95.2	95.2	97.4	85.3	101.5	62.2	92.2	92.2	94.2	86.5	100.5	64.1	87.3	87.3	88.9	85.0	97.2	64.2	81.6	81.6	82.3	82.1	92.6	63.5
	90	98.7	98.7	98.9	98.1	102.7	74.0	96.9	96.9	96.9	101.6	77.1	93.5	93.5	93.5	93.5	98.1	77.9	88.7	88.7	88.7	88.7	93.5	93.5	78.1
3300	75	89.3	82.0	96.7	59.5	99.4	37.8	83.3	79.1	93.7	58.7	98.7	36.8	76.5	75.9	87.8	56.3	96.7	35.4	69.8	69.8	80.1	53.1	92.9	33.7
	80	92.9	92.9	97.2	73.8	100.6	54.8	88.9	88.9	94.3	75.0	99.9	52.0	83.4	83.4	88.8	73.3	97.6	52.2	77.3	77.3	81.5	70.2	93.3	50.4
	85	97.0	97.0	98.4	88.2	101.9	63.3	94.7	94.7	95.8	90.8	101.0	65.6	90.6	90.6	91.3	90.6	98.5	67.2	85.0	85.0	85.0	85.0	93.7	66.6
	90	100.0	100.0	100.0	100.0	103.1	75.4	98.7	98.7	98.7	102.3	79.2	95.9	95.9	95.9	95.9	99.1	80.9	91.8	91.8	91.8	91.8	94.9	94.9	82.2
3600	75	91.0	86.2	97.3	60.8	99.7	38.3	85.3	83.8	94.5	61.1	99.0	37.3	78.4	78.4	89.1	58.8	97.1	35.9	72.1	72.1	81.5	55.7	93.6	34.3
	80	94.8	94.8	97.8	75.8	100.9	56.7	91.5	91.5	95.4	78.1	100.2	55.6	86.2	86.2	90.4	77.2	98.1	53.4	80.0	80.0	83.3	74.4	94.1	52.5
	85	98.3	98.3	99.1	90.7	102.2	64.2	96.5	96.5	97.1	94.5	101.5	66.9	93.0	93.0	93.0	93.0	99.0	68.9	87.8	87.8	87.8	87.8	94.7	69.4
	90	100.9	100.9	100.9	100.8	103.5	76.8	100.0	100.0	100.0	102.7	81.1	97.7	97.7	97.7	97.7	99.9	83.5	94.0	94.0	94.0	94.0	96.1	96.1	85.9

Notes:

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

Table PD-6 — Gross Cooling Capacities (MBh) 10 Ton Three Phase WSC120A3, A4, AW

		Ambient Temperature (F)																							
		85			95			105			115														
CFM	Enter. Dry Bulb (F)	Entering Wet Bulb (F)																							
		61		67		73		61		67		73		61		67		73							
Airflow		MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC	MBH	SHC						
3600	75	110.8	96.7	123.3	73.1	127.7	47.6	102.7	92.6	118.5	70.9	126.5	46.1	94.5	88.6	110.3	67.5	123.6	44.2	86.2	84.6	100.9	63.7	118.4	42.0
	80	114.3	114.3	123.8	92.0	129.2	64.9	107.9	107.9	119.0	89.8	127.8	65.2	101.1	101.1	111.1	86.4	124.3	63.2	94.1	94.1	102.0	82.4	118.6	60.9
	85	121.4	121.4	125.0	108.3	130.7	79.5	116.7	116.7	120.4	108.6	129.1	81.4	110.3	110.3	113.3	105.8	124.5	81.0	103.3	103.3	104.9	102.1	119.0	79.5
	90	126.4	126.4	126.9	124.8	132.2	94.4	123.4	123.4	123.4	130.5	97.7	118.7	118.7	118.7	118.7	125.8	98.0	112.4	112.4	112.4	112.4	120.0	97.6	
4000	75	113.8	103.0	124.4	75.6	128.2	48.3	105.9	99.1	120.3	74.2	127.0	46.9	97.5	95.1	112.7	71.1	124.4	45.0	89.0	89.0	103.2	67.1	119.7	42.8
	80	118.7	118.7	125.2	94.3	129.7	65.7	112.8	112.8	121.0	94.8	128.5	66.4	105.7	105.7	113.8	92.1	125.1	65.4	98.5	98.5	104.8	88.2	120.1	63.7
	85	124.5	124.5	126.6	112.7	131.3	81.0	120.9	120.9	122.8	114.9	130.0	83.6	115.1	115.1	116.6	113.7	126.5	84.9	108.2	108.2	108.2	108.2	120.6	83.8
	90	128.5	128.5	128.5	128.5	132.8	96.5	126.4	126.4	126.4	131.5	100.8	122.5	122.5	122.5	122.5	122.5	127.3	102.3	117.1	117.1	117.1	117.1	121.9	103.3
4400	75	116.5	109.1	125.6	78.0	128.5	49.0	108.8	105.5	121.7	77.4	127.6	47.6	99.8	99.8	114.6	74.6	125.0	45.8	92.3	92.3	105.2	70.7	120.6	43.7
	80	121.6	121.6	126.2	97.3	130.0	72.0	116.8	116.8	122.6	99.3	129.1	67.4	109.9	109.9	116.1	97.6	126.0	67.5	102.4	102.4	107.3	93.9	121.2	66.4
	85	126.5	126.5	127.8	116.4	131.7	82.3	123.7	123.7	124.7	120.3	130.6	85.4	119.0	119.0	119.0	119.0	126.9	86.7	112.3	112.3	112.3	112.3	121.9	87.6
	90	129.9	129.9	129.9	129.9	133.2	98.3	128.4	128.4	128.4	132.2	103.4	125.2	125.2	125.2	125.2	128.3	105.9	120.4	120.4	120.4	120.4	123.5	108.2	
4800	75	118.6	114.7	126.2	79.7	128.8	49.7	110.7	110.7	122.6	80.1	127.9	48.3	103.1	103.1	116.2	77.9	125.5	46.6	95.4	95.4	107.0	74.2	121.3	44.5
	80	123.7	123.7	127.0	99.8	130.3	74.6	119.8	119.8	123.9	103.2	129.5	68.4	113.4	113.4	118.0	102.8	126.9	69.3	105.9	105.9	109.5	99.4	121.6	68.7
	85	127.8	127.8	128.6	119.4	132.1	83.4	125.8	125.8	125.8	131.0	87.1	121.7	121.7	121.7	121.7	127.6	89.1	115.8	115.8	115.8	115.8	122.9	91.0	
	90	130.8	130.8	130.8	130.8	133.6	100.1	129.7	129.7	129.7	132.7	105.7	127.0	127.0	127.0	127.0	129.2	109.1	122.8	122.8	122.8	122.8	124.8	112.5	

Notes:

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



Performance Data

(3, 4, 5 Ton)

Table PD-7 – Direct Drive Evaporator Fan Performance – 3, 4 And 5 Ton WSC036A, WSC048A, WSC060A

		External Static Pressure (Inches of Water) & Motor Power (Bhp) ¹								
Tons	Unit Model No.	CFM	Standard Motor				Oversized Motor ²			
			High Speed		Low Speed		High Speed		Low Speed	
			ESP	BHP	ESP	BHP	ESP	BHP	ESP	BHP
3	WSC036A Horizontal	960	0.81	0.36	0.61	0.28	0.96	0.39	0.89	0.35
		1020	0.77	0.37	0.57	0.28	0.94	0.41	0.86	0.47
		1080	0.73	0.38	0.50	0.29	0.91	0.43	0.82	0.39
		1140	0.69	0.39	0.42	0.29	0.88	0.44	0.77	0.40
		1200	0.66	0.40	0.34	0.30	0.84	0.45	0.74	0.41
		1260	0.60	0.41	0.26	0.30	0.80	0.46	0.70	0.42
		1320	0.55	0.42	0.14	0.31	0.75	0.48	0.65	0.44
		1380	0.49	0.42	0.05	0.31	0.70	0.49	0.59	0.45
		1440	0.44	0.43	--	--	0.64	0.52	0.54	0.48
4	WSC048A Horizontal	1280	0.93	0.53	0.81	0.47	1.20	0.67	0.99	0.56
		1360	0.87	0.54	0.75	0.47	1.15	0.68	0.94	0.58
		1440	0.80	0.54	0.68	0.48	1.10	0.70	0.88	0.60
		1520	0.73	0.55	0.60	0.48	1.05	0.73	0.81	0.63
		1600	0.66	0.55	0.51	0.49	1.00	0.75	0.74	0.64
		1680	0.57	0.56	0.38	0.49	0.95	0.78	0.65	0.66
		1760	0.47	0.56	0.23	0.50	0.90	0.82	0.50	0.68
		1840	0.37	0.57	0.13	0.50	0.83	0.83	0.35	0.70
		1920	0.27	0.57	--	--	0.75	0.85	--	0.73
5	WSC060A Horizontal	1600	0.90	0.78	0.82	0.64	1.20	0.90	1.05	0.85
		1700	0.85	0.82	0.68	0.65	1.15	0.94	0.95	0.89
		1800	0.80	0.85	0.56	0.65	1.05	0.98	0.85	0.91
		1900	0.70	0.88	0.46	0.65	0.98	1.02	0.75	0.94
		2000	0.60	0.90	0.30	0.66	0.90	1.05	0.65	0.95
		2100	0.50	0.93	0.14	0.66	0.80	1.10	0.50	0.96
		2200	0.40	0.95	0.05	0.67	0.70	1.12	0.35	0.96
		2300	0.30	0.97	--	--	0.60	1.17	0.15	0.97
2400	0.20	1.00	--	--	0.48	1.20	--	--		
3	WSC036A Downflow	960	0.86	0.36	0.61	0.28	1.01	0.39	0.89	0.35
		1020	0.82	0.37	0.62	0.28	0.99	0.41	0.91	0.47
		1080	0.78	0.38	0.55	0.29	0.96	0.43	0.87	0.39
		1140	0.74	0.39	0.47	0.29	0.93	0.44	0.82	0.40
		1200	0.71	0.40	0.39	0.30	0.89	0.45	0.79	0.41
		1260	0.65	0.41	0.31	0.30	0.85	0.46	0.75	0.42
		1320	0.60	0.42	0.19	0.31	0.80	0.48	0.70	0.44
		1380	0.54	0.42	0.10	0.31	0.75	0.49	0.64	0.45
		1440	0.49	0.43	--	--	0.69	0.52	0.59	0.48
4	WSC048A Downflow	1280	0.98	0.53	0.86	0.47	1.25	0.67	1.04	0.56
		1360	0.92	0.54	0.80	0.47	1.20	0.68	0.99	0.58
		1440	0.85	0.54	0.73	0.48	1.15	0.70	0.93	0.60
		1520	0.78	0.55	0.65	0.48	1.10	0.73	0.86	0.63
		1600	0.71	0.55	0.56	0.49	1.05	0.75	0.79	0.64
		1680	0.62	0.56	0.43	0.49	1.00	0.78	0.70	0.66
		1760	0.52	0.56	0.28	0.50	0.95	0.82	0.55	0.68
		1840	0.42	0.57	0.18	0.50	0.88	0.83	0.40	0.70
		1920	0.32	0.57	--	--	0.80	0.85	--	--
5	WSC060A Downflow	1600	0.95	0.78	0.87	0.64	1.25	0.90	1.10	0.85
		1700	0.90	0.82	0.73	0.65	1.20	0.94	1.00	0.89
		1800	0.85	0.85	0.61	0.65	1.10	0.98	0.90	0.91
		1900	0.75	0.88	0.51	0.65	1.03	1.02	0.80	0.94
		2000	0.65	0.90	0.35	0.66	0.95	1.05	0.70	0.95
		2100	0.55	0.93	0.19	0.66	0.85	1.10	0.55	0.96
		2200	0.45	0.95	0.10	0.67	0.75	1.12	0.40	0.96
		2300	0.35	0.97	--	--	0.65	1.17	0.20	0.97
2400	0.25	1.00	--	--	0.53	1.20	--	--		

Fan motor heat (MBh) = 4.39 x Fan Bhp

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.

Notes:

1. Data includes pressure drop due to wet coil and filters.
2. 5 ton oversized motor performance is with 12 x 11 FC blower wheel.



Performance Data

(3 Ton)

Table PD-8 – Belt Drive Evaporator Fan Performance – 3 Ton – WSC036A3,A4,AW – Downflow Airflow

CFM	External Static Pressure (Inches of Water)																			
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
1-HP Standard Motor & Field Supplied Low Static Drive (1)										1-HP Standard Motor & Drive										
960	—	—	528	0.12	599	0.16	658	0.20	713	0.24	763	0.29	810	0.33	855	0.38	898	0.43	939	0.49
1080	—	—	557	0.15	625	0.19	685	0.24	738	0.28	786	0.33	832	0.38	876	0.43	917	0.48	957	0.54
1200	—	—	588	0.19	652	0.23	712	0.28	764	0.33	811	0.38	856	0.43	898	0.48	939	0.54	978	0.59
1320	552	0.18	622	0.23	681	0.27	738	0.32	790	0.38	838	0.44	882	0.49	923	0.55	962	0.60	1000	0.66
1440	588	0.23	657	0.28	713	0.33	765	0.37	817	0.43	865	0.50	909	0.56	949	0.62	987	0.68	1024	0.74

Table PD-8 – Continued

CFM	External Static Pressure (Inches of Water)									
	1.10		1.20		1.30		1.40		1.50	
RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
1-HP Standard Motor & Drive										
960	978	0.54	1016	0.60	1052	0.66	1086	0.72	1120	0.78
1080	995	0.59	1033	0.65	1069	0.71	1103	0.78	1136	0.84
1200	1015	0.65	1051	0.71	1086	0.77	1120	0.84	1154	0.91
1320	1036	0.72	1072	0.78	1106	0.85	1138	0.91	1171	0.98
1440	1060	0.80	1094	0.86	1128	0.93	1160	1.00	1192	1.07

1-HP Standard Motor & Field Supplied High Static Drive (2)

For Standard Evaporator Fan Speed (RPM), reference Table PD-20.
Notes:

- Data includes pressure drop due to standard filters and wet coils.
 - No accessories or options are included in pressure drop data.
 - Refer to Table PD-23 to determine additional static pressure drop due to other options/accessories.
 - Fan Motor Heat (MBH) = 2.829 x Fan BHP + .4024.
 - 1. Field Supplied Fan Sheave AK69 required. Field Supplied Belt may be necessary.
 - 2. Field Supplied Fan Sheave AK41 required. Field Supplied Belt may be necessary.
- 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 PD-9 – Belt Drive Evaporator Fan Performance – 3 Ton – WSC036A3,A4,AW – Horizontal Airflow

CFM	External Static Pressure (Inches of Water)																			
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
1-HP Standard Motor & Field Supplied Low Static Drive (1)										1-HP Standard Motor & Drive										
960	—	—	588	0.15	661	0.19	725	0.24	782	0.29	832	0.35	878	0.40	919	0.46	958	0.51	996	0.56
1080	531	0.13	622	0.18	694	0.24	756	0.29	813	0.34	864	0.40	910	0.46	954	0.52	993	0.59	1031	0.65
1200	570	0.17	654	0.23	727	0.28	787	0.34	843	0.40	895	0.46	942	0.52	986	0.59	1026	0.66	1064	0.73
1320	610	0.22	687	0.28	760	0.34	821	0.40	875	0.46	925	0.53	973	0.59	1017	0.66	1058	0.73	1095	0.81
1440	651	0.27	723	0.33	793	0.40	855	0.47	908	0.53	956	0.60	1003	0.67	1047	0.75	1088	0.82	1127	0.89

1-HP Standard Motor & Field Supplied High Static Drive (2)

Table PD-9 – Continued

CFM	External Static Pressure (Inches of Water)									
	1.10		1.20		1.30		1.40		1.50	
RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
1-HP Standard Motor & Drive										
960	1032	0.62	1066	0.67	1101	0.73	1133	0.79	1166	0.86
1080	1065	0.70	1099	0.76	1132	0.82	1164	0.89	1194	0.95
1200	1099	0.80	1133	0.86	1166	0.93	1197	0.99	1227	1.06
1320	1132	0.88	1167	0.96	1200	1.04	1230	1.11	1261	1.19
1440	1164	0.97	1199	1.05	1232	1.14	1263	1.22	1294	1.30

1-HP Standard Motor & Field Supplied High Static Drive (2)

For Standard Evaporator Fan Speed (RPM), reference Table PD-20.
Notes:

- Data includes pressure drop due to standard filters and wet coils.
 - No accessories or options are included in pressure drop data.
 - Refer to Table PD-23 to determine additional static pressure drop due to other options/accessories.
 - Fan Motor Heat (MBH) = 2.829 x Fan BHP + .4024.
 - 1. Field Supplied Fan Sheave AK69 required. Field Supplied Belt may be necessary.
 - 2. Field Supplied Fan Sheave AK41 required. Field Supplied Belt may be necessary.
- Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.



Performance Data

(4 Ton)

Table PD-10— Belt Drive Evaporator Fan Performance — 4 Ton — WSC048A3,A4,AW — Downflow Airflow

CFM	External Static Pressure (Inches of Water)																			
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1-HP Standard Motor & Field Supplied Low Static Drive (1)										1-HP Standard Motor & Drive										
1280	—	—	616	0.22	677	0.26	734	0.31	787	0.37	834	0.42	878	0.48	919	0.53	959	0.59	997	0.64
1440	596	0.23	663	0.29	719	0.33	772	0.38	823	0.44	871	0.51	914	0.57	954	0.63	993	0.69	1029	0.75
1600	647	0.31	711	0.37	764	0.42	813	0.47	860	0.53	906	0.59	951	0.66	992	0.74	1029	0.80	1065	0.87
1760	701	0.41	758	0.46	811	0.52	856	0.58	901	0.64	944	0.70	986	0.77	1027	0.85	1066	0.93	1102	1.00
1920	755	0.52	807	0.57	859	0.64	903	0.71	945	0.77	985	0.83	1024	0.89	1063	0.97	1101	1.05	1137	1.14

Table PD-10 — Continued

CFM	External Static Pressure (Inches of Water)									
	1.10		1.20		1.30		1.40		1.50	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1-HP Standard Motor & Drive										
1280	1033	0.70	1069	0.77	1103	0.83	1136	0.89	1170	0.96
1440	1066	0.81	1099	0.87	1133	0.94	1165	1.01	1196	1.08
1600	1099	0.93	1132	1.00	1166	1.07	1196	1.14	1228	1.21
1760	1136	1.08	1168	1.15	1200	1.22	1229	1.29	—	—
1920	1172	1.23	1205	1.31	1236	1.39	—	—	—	—

For Standard Evaporator Fan Speed (RPM), reference Table PD-20.

Notes:

Data includes pressure drop due to standard filters and wet coils.

No accessories or options are included in pressure drop data.

Refer to Table PD-23 to determine additional static pressure drop due to other options/accessories.

Fan Motor Heat (MBH) = 2.829 x Fan BHP + .4024.

1. Field Supplied Fan Sheave AK61 required. Field Supplied Belt may be necessary.

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 PD-11 — Belt Drive Evaporator Fan Performance — 4 Ton — WSC048A3,A4,AW — Horizontal Airflow

CFM	External Static Pressure (Inches of Water)																			
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1-HP Standard Motor & Field Supplied Low Static Drive (1)									1-HP Standard Motor & Drive											
1280	604	0.20	683	0.26	756	0.32	816	0.39	869	0.45	920	0.51	967	0.57	1011	0.64	1052	0.71	1090	0.79
1440	660	0.28	731	0.34	800	0.41	862	0.48	914	0.54	963	0.61	1009	0.68	1053	0.76	1094	0.83	1133	0.91
1600	717	0.36	783	0.43	846	0.51	907	0.58	961	0.66	1008	0.73	1053	0.81	1095	0.89	1135	0.97	1174	1.05
1760	774	0.47	837	0.54	894	0.62	952	0.70	1006	0.79	1054	0.87	1098	0.95	1139	1.04	1178	1.12	1216	1.21
1920	833	0.59	892	0.67	946	0.76	998	0.85	1050	0.94	1100	1.03	1144	1.12	1185	1.21	1224	1.30	1259	1.39

Table PD-11 — Continued

CFM	External Static Pressure (Inches of Water)									
	1.10		1.20		1.30		1.40		1.50	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1-HP Standard Motor & Drive										
1280	1125	0.86	1160	0.94	1192	1.01	1223	1.08	1254	1.15
1440	1169	0.98	1204	1.07	1237	1.15	1269	1.23	1300	1.32
1600	1211	1.13	1247	1.21	1280	1.30	1312	1.39	1343	1.48
1760	1253	1.30	1289	1.39	1322	1.47	—	—	—	—
1920	1295	1.48	—	—	—	—	—	—	—	—
1-HP Standard Motor & Field Supplied High Static Drive (2)										

1-HP Standard Motor & Field Supplied High Static Drive (2)

For Standard Evaporator Fan Speed (RPM), reference Table PD-20.

Notes:

Data includes pressure drop due to standard filters and wet coils.

No accessories or options are included in pressure drop data.

Refer to Table PD-23 to determine additional static pressure drop due to other options/accessories.

Fan Motor Heat (MBH) = 2.829 x Fan BHP + .4024.

1. Field Supplied Fan Sheave AK61 required. Field Supplied Belt may be necessary.

2. Field Supplied Fan Sheave AK41 required. Field Supplied Belt may be necessary.

Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.



Performance Data

(5 Ton)

Table PD-12 — Belt Drive Evaporator Fan Performance — 5 Ton — WSC060A3,A4,AW — Downflow Airflow

CFM	External Static Pressure (Inches of Water)																					
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00			
RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
1-HP Standard Motor & Field Supplied Low Static Drive (1)										1-HP Standard Motor & Drive												
1600	—	—	703	0.36	757	0.41	806	0.47	854	0.52	899	0.58	944	0.65	985	0.73	1023	0.79	1060	0.86	1104	1.02
1800	706	0.42	760	0.47	815	0.54	861	0.60	904	0.66	947	0.72	988	0.78	1028	0.86	1067	0.94	1104	1.02	1147	1.19
2000	773	0.57	821	0.62	873	0.69	918	0.76	958	0.83	998	0.90	1036	0.96	1073	1.02	1111	1.10	1147	1.19	1191	1.39
2200	840	0.75	885	0.80	930	0.87	977	0.95	1016	1.03	1053	1.10	1089	1.17	1124	1.24	1158	1.31	1191	1.39	—	—
2400	909	0.96	950	1.02	990	1.08	1034	1.16	1074	1.25	1110	1.00	1143	1.42	1177	1.50	—	—	—	—	—	—

Table PD-12 — Continued

CFM	External Static Pressure (Inches of Water)									
	1.10		1.20		1.30		1.40		1.50	
RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
1-HP Standard Motor & Drive										
1600	1093	0.92	1126	0.99	1160	1.06	1190	1.13	1222	1.20
1800	1138	1.10	1171	1.17	1203	1.25	1232	1.32	1262	1.39
2000	1182	1.28	1215	1.37	1246	1.46	—	—	—	—
2200	1226	1.48	—	—	—	—	—	—	—	—
2400	—	—	—	—	—	—	—	—	—	—

For Standard Evaporator Fan Speed (RPM), reference Table PD-20.

Notes:

Data includes pressure drop due to standard filters and wet coils.

No accessories or options are included in pressure drop data.

Refer to Table PD-23 to determine additional static pressure drop due to other options/accessories

Fan Motor Heat (MBH) = 2.829 x Fan BHP + .4024.

1. Field Supplied Fan Sheave AK56 required. Field Supplied Belt may be necessary.

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 PD-13 — Belt Drive Evaporator Fan Performance — 5 Ton — WSC060A3,A4,AW — Horizontal Airflow

CFM	External Static Pressure (Inches of Water)																					
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00			
RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
1-HP Standard Motor & Field Supplied Low Static Drive (1)									1-HP Standard Motor & Drive													
1600	707	0.35	774	0.42	837	0.50	898	0.57	953	0.65	1001	0.72	1045	0.80	1087	0.87	1129	0.95	1168	1.03	1219	1.23
1800	778	0.48	840	0.56	897	0.64	953	0.72	1008	0.81	1058	0.89	1102	0.98	1143	1.06	1181	1.15	1219	1.23	1274	1.47
2000	850	0.65	908	0.73	961	0.81	1012	0.90	1062	1.00	1111	1.09	1157	1.19	1198	1.28	1237	1.37	1274	1.47	—	—
2200	923	0.84	978	0.93	1028	1.02	1075	1.12	1120	1.22	1166	1.32	1211	1.43	—	—	—	—	—	—	—	—
2400	997	1.07	1049	1.17	1096	1.27	1140	1.37	1183	1.48	—	—	—	—	—	—	—	—	—	—	—	—

Table PD-13 — Continued

CFM	External Static Pressure (Inches of Water)									
	1.10		1.20		1.30		1.40		1.50	
RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
1-HP Standard Motor										
1600	1206	1.12	1241	1.20	1275	1.28	1306	1.37	1338	1.46
1800	1256	1.32	1291	1.41	1326	1.50	—	—	—	—
2000	—	—	—	—	—	—	—	—	—	—
2200	—	—	—	—	—	—	—	—	—	—
2400	—	—	—	—	—	—	—	—	—	—

For Standard Evaporator Fan Speed (RPM), reference Table PD-20.

Notes:

Data includes pressure drop due to standard filters and wet coils.

No accessories or options are included in pressure drop data.

Refer to Table PD-23 to determine additional static pressure drop due to other options/accessories

Fan Motor Heat (MBH) = 2.829 x Fan BHP + .4024.

1. Field Supplied Fan Sheave AK56 required. Field Supplied Belt may be necessary.

Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.



Performance Data (6 Ton)

Table PD-14— Belt Drive Evaporator Fan Performance — 6 Ton — WSC072A3,A4,AW* — Downflow Airflow

CFM	External Static Pressure (Inches of Water)																				
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00		
RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1-HP Standard Motor & Field Supplied Low Static Drive (1)											1-HP Standard Motor & Drive										
1920	—	—	—	—	588	0.35	643	0.43	693	0.50	738	0.57	782	0.65	823	0.73	862	0.81	900	0.89	
2160	—	—	564	0.37	618	0.44	672	0.52	721	0.60	765	0.68	806	0.76	847	0.85	885	0.93	922	1.02	
2400	—	—	602	0.47	652	0.54	701	0.63	750	0.72	794	0.81	834	0.90	873	0.98	909	1.08	945	1.17	
2640	589	0.50	642	0.59	690	0.67	734	0.76	779	0.85	822	0.95	864	1.05	901	1.15	936	1.24	971	1.34	
2880	634	0.63	682	0.74	728	0.82	770	0.91	810	1.01	851	1.11	892	1.22	930	1.33	965	1.44	999	1.54	

Table PD-14— Continued

CFM	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		
RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1-HP Standard Motor & Drive				1-HP Standard Motor & High Static Drive Kit (or 2 HP Oversized Motor & Drive)																	
1920	937	0.98	971	1.06	1004	1.14	1037	1.22	1068	1.30	1097	1.38	1127	1.47	1154	1.55	1182	1.64	1210	1.74	
2160	957	1.12	991	1.21	1024	1.30	1057	1.40	1087	1.49	1117	1.58	1146	1.67	1174	1.76	1201	1.85	1227	1.95	
2400	980	1.27	1013	1.37	1046	1.47	1076	1.57	1106	1.68	1137	1.78	1166	1.89	1194	1.99	1220	2.08	1248	2.19	
2640	1004	1.44	1036	1.55	1067	1.65	1098	1.77	1129	1.88	1158	1.99	1185	2.10	1214	2.22	—	—	—	—	
2880	1030	1.64	1061	1.75	1092	1.86	1123	1.98	1151	2.09	1181	2.22	—	—	—	—	—	—	—	—	
											2-HP Oversized Motor & Drive										

For Standard Evaporator Fan Speed (RPM), reference Table PD-20.
Notes:

- Data includes pressure drop due to standard filters and wet coils.
- No accessories or options are included in pressure drop data.
- Refer to Table PD-23 to determine additional static pressure drop due to other options/accessories.
- 1-HP Fan Motor Heat (MBH) = 2.829 x Fan BHP + .4024.
- 2-HP Fan Motor Heat (MBH) = 3.000 x Fan BHP + .5000
- 1. Field Supplied Fan Sheave AK84 and Belt AX34 required

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 PD-15 — Belt Drive Evaporator Fan Performance — 6 Ton — WSC072A3,A4,AW — Horizontal Airflow

CFM	External Static Pressure (Inches of Water)																				
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00		
RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1-HP Standard Motor & Field Supplied Low Static Drive (1)									1-HP Standard Motor & Drive												
1920	—	—	580	0.33	641	0.41	692	0.47	738	0.54	783	0.63	827	0.71	870	0.79	912	0.88	951	0.96	
2160	578	0.37	623	0.43	679	0.51	731	0.59	775	0.67	817	0.74	857	0.83	896	0.93	935	1.02	974	1.12	
2400	633	0.49	673	0.56	718	0.63	769	0.72	814	0.82	855	0.90	893	0.98	929	1.08	965	1.18	999	1.29	
2640	688	0.64	725	0.71	762	0.79	808	0.87	853	0.98	894	1.09	931	1.17	966	1.26	1000	1.36	1032	1.47	
2880	743	0.81	778	0.90	811	0.98	848	1.06	891	1.16	932	1.28	970	1.40	1004	1.49	1037	1.59	1068	1.69	

Table PD-15 — Continued

CFM	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		
RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1-HP Standard Motor & Drive				1-HP Standard Motor & High Static Drive Kit (or 2 HP Oversized Motor & Drive)																	
1920	990	1.05	1026	1.14	1062	1.24	1096	1.33	1130	1.43	1160	1.52	1190	1.61	1218	1.71	1247	1.80	1273	1.90	
2160	1010	1.21	1047	1.31	1082	1.40	1116	1.50	1150	1.61	1182	1.71	1211	1.81	1242	1.92	1271	2.03	1298	2.14	
2400	1035	1.39	1070	1.50	1104	1.60	1137	1.70	1168	1.81	1201	1.92	1232	2.03	1261	2.14	1291	2.26	—	—	
2640	1065	1.59	1097	1.71	1129	1.82	1161	1.93	1192	2.05	1223	2.16	1252	2.27	—	—	—	—	—	—	
2880	1099	1.80	1130	1.93	1159	2.05	1188	2.18	1217	2.30	—	—	—	—	—	—	—	—	—	—	
											2-HP Oversized Motor & Drive										

For Standard Evaporator Fan Speed (RPM), reference Table PD-20.
Notes:

- Data includes pressure drop due to standard filters and wet coils.
- No accessories or options are included in pressure drop data.
- Refer to Table PD-23 to determine additional static pressure drop due to other options/accessories.
- 1-HP Fan Motor Heat (MBH) = 2.829 x Fan BHP + .4024.
- 2-HP Fan Motor Heat (MBH) = 3.000 x Fan BHP + .5000
- 1. Field Supplied Fan Sheave AK84 and Belt AX34 required.
- 2. Field Supplied Fan Sheave AK54 and Belt AX30.

Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.



Performance Data

(7½ Ton)

Table PD-16— Belt Drive Evaporator Fan Performance — 7½-Ton — WSC090,092A3,A4,AW — Downflow Airflow

CFM	External Static Pressure (Inches of Water)																			
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1-HP Standard Motor & Field Supplied Low Static Drive (1)											1-HP Standard Motor & Drive									
2400	—	—	620	0.49	670	0.57	720	0.66	768	0.76	810	0.84	850	0.93	888	1.02	925	1.12	961	1.22
2700	622	0.57	673	0.66	719	0.74	763	0.84	807	0.94	850	1.04	889	1.14	926	1.24	961	1.34	995	1.44
3000	680	0.76	727	0.87	770	0.95	810	1.05	849	1.16	890	1.27	929	1.38	967	1.50	1000	1.61	1034	1.72
3300	739	0.98	782	1.11	823	1.21	861	1.30	897	1.41	933	1.50	969	1.66	1006	1.78	1041	1.91	1074	2.03
3600	798	1.25	838	1.39	876	1.50	913	1.61	947	1.72	980	1.84	1013	1.97	1047	2.11	1080	2.24	1113	2.38
											3-HP Oversized Motor & Drive									

Table PD-16— Continued

3-HP Oversized Motor & Field Supplied Sheave(2)

CFM	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	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
											3-HP Oversized Motor & Drive									
2400	995	1.32	1027	1.42	1060	1.52	1091	1.62	1121	1.73	1151	1.83	1180	1.93	1207	2.04	1234	2.14	1260	2.24
2700	1027	1.55	1059	1.65	1091	1.77	1121	1.88	1151	2.00	1179	2.11	1207	2.23	1234	2.34	1261	2.46	1289	2.58
3000	1065	1.83	1095	1.94	1125	2.05	1154	2.17	1183	2.30	1211	2.42	1238	2.54	1264	2.67	1292	2.80	1317	2.93
3300	1104	2.15	1134	2.27	1163	2.40	1191	2.52	1217	2.64	1245	2.77	1272	2.90	1297	3.03	1324	3.17	1349	3.31
3600	1144	2.52	1173	2.65	1202	2.78	1229	2.91	1256	3.05	1282	3.18	1308	3.32	1332	3.45	—	—	—	—
											3-HP Oversized Motor & Field Supplied High Static Drive (3)									

1-HP Standard Motor & Drive

For Standard Evaporator Fan Speed (RPM), reference Table PD-20.
Notes:
Data includes pressure drop due to standard filters and wet coils.
No accessories or options are included in pressure drop data.
Refer to Table PD-23 to determine additional static pressure drop due to other options/accessories
1-HP Fan Motor Heat (MBH) = 2.829 x Fan BHP + .4024.
3-HP Fan Motor Heat (MBH) = 2.90 x Fan BHP + .500.

1. Field Supplied Fan Sheave AK79 and Belt AX34 required.
2. Field Supplied Fan Sheave AK61.
3. Field Supplied Motor Sheave 1VL40 x 7/8", Fan Sheave AK46 and Belt AX28 required.
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 PD-17 — Belt Drive Evaporator Fan Performance — 7½-Ton — WSC090,092A3,A4,AW — Horizontal Airflow

CFM	External Static Pressure (Inches of Water)																			
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1-HP Standard Motor & Field Supplied Low Static Drive (1)									1-HP Standard Motor & Drive											
2400	647	0.51	686	0.58	737	0.66	787	0.76	831	0.85	870	0.93	908	1.02	944	1.12	980	1.23	1015	1.33
2700	718	0.71	753	0.79	792	0.87	839	0.96	882	1.08	922	1.18	958	1.27	992	1.36	1026	1.47	1058	1.59
3000	789	0.96	822	1.04	853	1.13	892	1.22	935	1.33	974	1.45	1011	1.58	1044	1.68	1076	1.78	1106	1.88
3300	862	1.25	892	1.35	921	1.44	951	1.54	988	1.64	1026	1.76	1062	1.90	1096	2.04	1129	2.16	1158	2.27
3600	934	1.61	963	1.71	990	1.81	1016	1.92	1045	2.02	1079	2.13	1115	2.27	1148	2.41	1180	2.57	1210	2.71
									3-HP Oversized Motor & Drive											

Table PD-17 — Continued

CFM	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	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
									3-HP Standard Oversized Motor & Drive											
2400	1051	1.44	1085	1.54	1118	1.64	1152	1.75	1185	1.86	1215	1.97	1247	2.09	1277	2.20	1305	2.32	1333	2.43
2700	1090	1.70	1122	1.82	1153	1.94	1185	2.06	1216	2.18	1245	2.29	1274	2.40	1304	2.53	1333	2.65	1361	2.78
3000	1136	2.00	1165	2.13	1194	2.26	1223	2.39	1251	2.52	1279	2.65	1308	2.78	1336	2.91	1363	3.04	1390	3.17
3300	1187	2.39	1214	2.50	1242	2.63	1269	2.76	1296	2.90	1322	3.05	1347	3.19	1373	3.34	—	—	—	—
3600	1239	2.84	1266	2.96	1291	3.08	1317	3.20	1343	3.34	—	—	—	—	—	—	—	—	—	—
									3-HP Oversized Motor & Field Supplied High Static Drive (2)											

1-HP Standard Motor & Drive

For Standard Evaporator Fan Speed (RPM), reference Table PD-20.
Notes:
Data includes pressure drop due to standard filters and wet coils.
No accessories or options are included in pressure drop data.
Refer to Table PD-23 to determine additional static pressure drop due to other options/accessories
1-HP Fan Motor Heat (MBH) = 2.829 x Fan BHP + .4024.
3-HP Fan Motor Heat (MBH) = 2.90 x Fan BHP + .500.
1. Field Supplied Fan Sheave AK79 and Belt AX34 required.
2. Field Supplied Motor Sheave 1VL40 x 7/8", Fan Sheave AK46 and Belt AX28 required.

Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.



Performance Data (10 Ton)

Table PD-18 – Belt Drive Evaporator Fan Performance – 10-Ton – WSC120A3,A4,AW – Downflow Airflow

CFM	External Static Pressure (Inches of Water)																			
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2-HP Standard Motor & Field Supplied Low Static Drive (1)																				
3200	560	0.53	601	0.63	644	0.74	682	0.85	718	0.97	754	1.10	789	1.25	822	1.38	856	1.53	887	1.67
3600	620	0.73	657	0.83	694	0.95	731	1.08	764	1.20	797	1.33	829	1.48	860	1.63	892	1.79	922	1.95
4000	680	0.97	715	1.09	747	1.21	782	1.35	814	1.49	844	1.63	874	1.77	903	1.93	932	2.09	960	2.27
4400	741	1.27	773	1.40	803	1.53	834	1.67	864	1.82	894	1.98	922	2.13	948	2.28	975	2.44	1001	2.62
4800	803	1.62	833	1.76	861	1.90	887	2.04	916	2.20	—	—	972	2.55	997	2.71	1022	2.87	1046	3.04
2-HP Standard Motor & Drive											5-HP Oversized Motor & Drive									

Table PD-18 – Continued

CFM	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	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2-HP Standard Motor & Drive																				
3200	917	1.82	945	1.97	973	2.14	999	2.30	1024	2.47	1048	2.65	1072	2.82	1095	3.00	1117	3.17	1140	3.36
3600	951	2.11	979	2.27	1007	2.43	1033	2.60	1059	2.78	1082	2.95	1107	3.14	1130	3.33	1152	3.52	1173	3.71
4000	988	2.44	1015	2.62	1042	2.79	1068	2.97	1093	3.15	1117	3.33	1142	3.52	1164	3.70	1187	3.91	1209	4.11
4400	1028	2.81	1053	3.00	1078	3.19	1103	3.38	1128	3.57	1152	3.77	1176	3.96	1198	4.15	1221	4.36	1243	4.56
4800	1071	3.23	1095	3.42	1119	3.62	1142	3.83	1166	4.04	1189	4.25	1212	4.46	1233	4.66	1256	4.88	1277	5.09
2-HP Standard Motor & Drive											5-HP Oversized Motor & Drive									

For Standard Evaporator Fan Speed (RPM), reference Table PD-20.

Notes:

Data includes pressure drop due to standard filters and wet coils.

No accessories or options are included in pressure drop data.

Refer to Table PD-23 to determine additional static pressure drop due to other options/accessories.

2-HP Fan Motor Heat (MBH) = 2.00 x Fan BHP + .500.

5-HP Fan Motor Heat (MBH) = 2.950 x Fan BHP + .470.

1. Field Supplied Motor Sheave 1VP34 x 7/8", Fan Sheave AK69, and belt AX35 required.

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 PD-19 – Belt Drive Evaporator Fan Performance – 10-Ton – WSC120A3,A4,AW – Horizontal Airflow

CFM	External Static Pressure (Inches of Water)																			
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2-HP Standard Motor & Drive																				
3200	656	0.81	691	0.89	730	1.00	771	1.13	807	1.26	844	1.39	886	1.55	926	1.72	965	1.89	1000	2.06
3600	729	1.13	761	1.22	792	1.32	829	1.45	865	1.60	898	1.74	930	1.89	965	2.06	1002	2.24	1038	2.43
4000	802	1.52	833	1.63	860	1.73	890	1.86	923	2.01	956	2.17	986	2.30	1015	2.48	1044	2.65	1077	2.85
4400	876	1.99	905	2.12	931	2.24	955	2.35	983	2.49	1014	2.66	1045	2.84	1072	3.01	1098	3.18	1125	3.36
4800	950	2.56	977	2.70	1002	2.84	1025	2.96	1048	3.08	1074	3.24	1102	3.43	1131	3.63	1156	3.81	1181	4.00
2-HP Standard Motor & Drive											5-HP Oversized Motor & Drive									

2-HP Standard Motor & Field Supplied Low Static Drive (1)

Table PD-19 – Continued

CFM	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	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5-HP Oversized Motor & Drive																				
3200	1029	2.20	1057	2.35	1084	2.49	1108	2.63	1132	2.77	1155	2.91	1177	3.05	1198	3.18	1219	3.32	1239	3.46
3600	1072	2.62	1106	2.81	1134	2.98	1160	3.15	1185	3.31	1209	3.47	1231	3.63	1252	3.78	1274	3.94	1295	4.10
4000	1111	3.05	1143	3.26	1174	3.47	1204	3.68	1232	3.88	1260	4.09	1283	4.27	1306	4.46	1327	4.63	1349	4.81
4400	1152	3.55	1182	3.76	1211	3.99	1241	4.21	1270	4.44	1299	4.68	1327	4.91	1352	5.14	1377	5.37	1400	5.57
4800	1205	4.19	1229	4.39	1253	4.58	1280	4.81	1309	5.06	1336	5.31	1363	5.56	—	—	—	—	—	—
5-HP Oversized Motor & Drive											5-HP Oversized Motor & Field Supplied Sheave (2)									

For Standard Evaporator Fan Speed (RPM), reference Table PD-20.

Notes:

Data includes pressure drop due to standard filters and wet coils.

No accessories or options are included in pressure drop data.

Refer to Table PD-23 to determine additional static pressure drop due to other options/accessories.

2-HP Fan Motor Heat (MBH) = 3.00 x Fan BHP + .500.

5-HP Fan Motor Heat (MBH) = 2.950 x Fan BHP + .470.

1. Field Supplied Motor Sheave 1VP34 x 7/8", Fan Sheave AK69, and belt AX35 required.

2. Field supplied Fan Sheave BK95 required.

Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Performance Data

Table PD-20 – Standard Motor & Sheave/Fan Speed (Rpm)

Tons	Unit Model No.	6Turns Open	5Turns Open	4Turns Open	3Turns Open	2Turns Open	1Turn Open	Closed
3	WSC036A	N/A	745	819	894	968	1043	1117
4	WSC048A	N/A	833	916	1000	1083	1167	1250
5	WSC060A	N/A	897	987	1077	1166	1256	1346
6	WSC072A	N/A	723	779	835	890	946	1002
7½	WSC090A	N/A	787	847	908	968	1029	1089
10	WSC120A	N/A	723	779	835	890	946	1002

Factory set at 3 turns open.

Table PD-21 – Standard Motor & High Static Drive Accessory Sheave/Fan Speed (Rpm)

Tons	Unit Model No.	6Turns Open	5Turns Open	4Turns Open	3Turns Open	2Turns Open	1Turn Open	Closed
6	WSC072A	N/A	831	895	959	1022	1086	1150

Factory set at 3 turns open.

Table PD-22 – Oversized Motor & Drive Sheave/Fan Speed (Rpm)

Tons	Unit Model No.	6Turns Open	5Turns Open	4Turns Open	3Turns Open	2Turns Open	1Turn Open	Closed
6	WSC072A	N/A	958	1022	1086	1150	1214	1278
7½	WSC090A	N/A	958	1022	1086	1150	1214	1278
10	WSC120A	947	1015	1082	1150	1217	1285	N/A

Factory set at 3 turns open.



Performance Data

Table PD-23— Static Pressure Drops Through Accessories (Inches Water Column)

Tons	Unit Model No.	Standard CFM	Standard Filters ¹	Pleated Filters	Economizer with OA/RADampers ²				Electric Heater Accessory (KW) ³			
					100% OA		100% RA		5-6	9-15	17-36	54
					Downflow		Horizontal					
3	WSC036A	960	0.04	0.06	0.05	0.01	0.05	0.00	.013	.016	.019	—
		1200	0.06	0.09	0.07	0.02	0.07	0.01	.020	.025	.030	—
		1440	0.08	0.12	0.10	0.03	0.10	0.01	.029	.036	.043	—
4	WSC048A	1280	0.04	0.06	0.08	0.03	0.08	0.01	.023	.029	.034	—
		1600	0.05	0.09	0.12	0.04	0.12	0.01	.036	.045	.053	—
		1920	0.08	0.12	0.17	0.06	0.17	0.02	.052	.064	.077	—
5	WSC060A	1600	0.05	0.09	0.12	0.04	0.12	0.01	.036	.045	.053	—
		2000	0.09	0.13	0.18	0.07	0.18	0.02	.056	.070	.083	—
		2400	0.12	0.18	0.26	0.10	0.26	0.04	.081	.100	.120	—
6	WSC072A	1920	0.04	0.07	0.10	0.01	0.06	0.02	0.02	0.011	0.021	—
		2400	0.06	0.09	0.11	0.02	0.08	0.02	0.02	0.020	0.034	—
		2880	0.09	0.12	0.13	0.04	0.10	0.04	0.04	0.033	0.052	—
7½	WSC090A	2400	0.06	0.09	0.11	0.02	0.08	0.02	0.02	0.020	0.034	—
		3000	0.10	0.13	0.14	0.05	0.12	0.05	0.05	0.042	0.063	—
		3600	0.14	0.18	0.21	0.07	0.25	0.08	0.08	0.077	0.102	—
10	WSC120A	3200	0.07	0.10	0.17	0.05	0.14	0.05	0.05	0.028	0.036	0.042
		4000	0.11	0.15	0.26	0.07	0.30	0.08	0.08	0.045	0.056	0.070
		4800	0.16	0.20	0.34	0.09	0.35	0.10	0.10	0.065	0.081	0.106

- Notes:
 1. Tested with standard filters (3-5 tons 1", 6-10 tons 2"). Difference in pressure drop should be considered with utilizing optional 2" pleated filters.
 2. OA = Outside Air and RA = Return Air.
 3. Nominal KW ratings at 240, 480, 600 volts.

Table PD-24— Electric Heater Voltage Correction Factors (Applicable to Auxiliary Heat Capacity)

Nominal Voltage	Distribution Voltage	Capacity Multiplier
240	208	0.751
	230	0.918
	240	1.000
480	440	0.840
	460	0.918
	480	1.000
600	540	0.810
	575	0.918
	600	1.000

Table PD-25 — Outdoor Sound Power Level - dB (ref. 10⁻¹² Watts)

Tons	Unit Model No.	Octave Center Frequency								Overall dBA
		63	125	250	500	1000	2000	4000	8000	
3	WSC036A	85	82	80	79	77	73	69	68	82
4,5	WSC048,060A	95	88	84	83	80	77	74	70	85
6	WSC072A	92	95	91	88	84	80	75	68	90
7½	WSC090A	91	95	91	88	84	79	75	68	90
10	WSC120A	94	89	87	85	84	78	75	69	88

Note:
 Tests follow ARI270-95.



Performance Data

(3 Ton)

Table PD-26 — 3 Ton Single Phase Heating Capacities (Net) WSC036A1 At 1200 CFM

Outdoor Temp F.	Instantaneous Heating Capacity (Btuh/1000) at Indicated Indoor Dry Bulb Temp.				Integrated Heating Capacity (Btuh/1000) at Indicated Indoor Dry Bulb Temp. ¹				Total Power in Kilowatts at Indicated Indoor Dry Bulb Temp.			
	60	70	75	80	60	70	75	80	60	70	75	80
-8	9.9	8.8	8.1	7.5	8.9	7.9	7.3	6.8	2.32	2.36	2.38	2.39
-3	12.0	10.8	10.2	9.5	10.8	9.7	9.2	8.6	2.42	2.47	2.49	2.51
2	14.2	12.9	12.3	11.6	12.8	11.6	11.1	10.4	2.51	2.57	2.60	2.62
7	16.5	15.2	14.5	13.8	14.9	13.7	13.1	12.4	2.60	2.67	2.71	2.73
12	18.8	17.5	16.8	16.1	16.9	15.8	15.1	14.5	2.69	2.77	2.81	2.84
17	21.1	19.9	19.2	18.5	19.0	17.9	17.3	16.7	2.77	2.87	2.91	2.95
22	23.5	22.2	21.5	20.9	21.2	20.0	19.4	18.8	2.85	2.96	3.01	3.06
27	26.1	24.6	23.9	23.1	23.5	22.1	21.5	20.8	2.94	3.05	3.11	3.16
32	28.7	27.2	26.4	25.6	25.8	24.5	23.8	23.0	3.02	3.15	3.21	3.27
37	31.3	29.7	28.9	28.1	28.2	26.7	26.0	25.3	3.11	3.25	3.32	3.38
42	33.9	32.2	31.4	30.6	30.5	29.0	28.3	27.5	3.20	3.35	3.42	3.50
47	36.6	34.8	33.9	33.1	36.6	34.8	33.9	33.1	3.29	3.45	3.53	3.61
52	39.2	37.4	36.5	35.6	39.2	37.4	36.5	35.6	3.39	3.57	3.65	3.74
57	41.9	38.7	37.8	36.8	41.9	38.7	37.8	36.8	3.49	3.66	3.75	3.85
62	43.2	41.3	40.4	39.4	43.2	41.3	40.4	39.4	3.57	3.78	3.89	3.99
67	45.9	43.9	42.9	41.9	45.9	43.9	42.9	41.9	3.69	3.92	4.02	4.13
72	48.6	46.5	45.5	44.4	48.6	46.5	45.5	44.4	3.81	4.05	4.17	4.28

For other airflow conditions, see heating capacity correction factor (Table PD-39).

Net heating capacity and power input includes indoor fan heat at ARI esp. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.

Note:

1. Integrated heating capacities and powers include the effects of defrost in the frost region. All heating capacities and power (kw) are at 70% OD relative humidity and demand defrost cycle.

Table PD-27 — 3 Ton Three Phase Heating Capacities (Net) WSC036A3, A4, AW At 1200 CFM

Outdoor Temp F.	Instantaneous Heating Capacity (Btuh/1000) at Indicated Indoor Dry Bulb Temp.				Integrated Heating Capacity (Btuh/1000) at Indicated Indoor Dry Bulb Temp. ¹				Total Power in Kilowatts at Indicated Indoor Dry Bulb Temp.			
	60	70	75	80	60	70	75	80	60	70	75	80
-8	9.6	8.6	8.1	7.5	8.6	7.7	7.3	6.8	2.14	2.21	2.23	2.25
-3	11.7	10.7	10.1	9.5	10.5	9.6	9.1	8.6	2.25	2.32	2.35	2.38
2	13.9	12.8	12.3	11.6	12.5	11.5	11.1	10.4	2.36	2.44	2.47	2.50
7	16.3	15.1	14.5	13.9	14.7	13.6	13.1	12.5	2.46	2.54	2.58	2.62
12	18.6	17.4	16.8	16.1	16.7	15.7	15.1	14.5	2.55	2.65	2.69	2.73
17	20.9	19.8	19.2	18.5	18.8	17.8	17.3	16.7	2.64	2.75	2.80	2.85
22	23.4	22.1	21.5	20.8	21.1	19.9	19.4	18.7	2.73	2.85	2.90	2.95
27	26.0	24.6	23.9	23.2	23.4	22.1	21.5	20.9	2.82	2.95	3.00	3.06
32	28.6	27.2	26.4	25.7	25.7	24.5	23.8	23.1	2.91	3.04	3.11	3.17
37	31.2	29.7	28.9	28.2	28.1	26.7	26.0	25.4	3.00	3.14	3.21	3.28
42	33.9	32.2	31.4	30.6	30.5	29.0	28.3	27.5	3.09	3.24	3.32	3.39
47	36.5	34.8	34.0	33.1	36.5	34.8	34.0	33.1	3.18	3.34	3.42	3.50
52	39.2	37.4	36.5	35.6	39.2	37.4	36.5	35.6	3.28	3.45	3.53	3.62
57	41.8	38.7	37.8	36.8	41.8	38.7	37.8	36.8	3.37	3.53	3.63	3.72
62	43.2	41.3	40.3	39.3	43.2	41.3	40.3	39.3	3.44	3.65	3.75	3.85
67	45.8	43.9	42.9	41.8	45.8	43.9	42.9	41.8	3.55	3.76	3.87	3.98
72	48.5	46.4	45.4	44.3	48.5	46.4	45.4	44.3	3.65	3.88	4.00	4.11

For other airflow conditions, see heating capacity correction factor (Table PD-39).

Net heating capacity and power input includes indoor fan heat at ARI esp. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.

Note:

1. Integrated heating capacities and powers include the effects of defrost in the frost region. All heating capacities and power (kw) are at 70% OD relative humidity and demand defrost cycle.



Performance Data (4 Ton)

Table PD-28 — 4Ton Three Phase Heating Capacities (Net) WSC048A1 At 1600 CFM

Outdoor Temp. F.	Instantaneous Heating Capacity (Btuh/1000) at Indicated Indoor Dry Bulb Temp.				Integrated Heating Capacity (Btuh/1000) at Indicated Indoor Dry Bulb Temp. ¹				Total Power in Kilowatts at Indicated Indoor Dry Bulb Temp.			
	60	70	75	80	60	70	75	80	60	70	75	80
-8	17.2	16.9	16.8	16.6	15.5	15.2	15.1	14.9	3.78	4.11	4.30	4.51
-3	19.5	19.0	18.9	18.8	17.6	17.1	17.0	16.9	3.73	4.07	4.26	4.49
2	21.8	21.3	21.1	21.0	19.6	19.2	19.0	18.9	3.82	4.14	4.34	4.55
7	24.4	23.8	23.5	23.3	22.0	21.4	21.2	21.0	3.86	4.18	4.38	4.59
12	27.0	26.3	26.0	25.8	24.3	23.7	23.4	23.2	3.90	4.23	4.43	4.63
17	29.8	29.0	28.7	28.4	26.8	26.1	25.8	25.6	3.96	4.28	4.48	4.68
22	32.7	31.8	31.4	31.1	29.4	28.6	28.3	28.0	4.01	4.34	4.53	4.74
27	35.7	34.7	34.3	33.9	32.1	31.2	30.9	30.5	4.07	4.39	4.59	4.79
32	38.8	37.7	37.3	36.8	34.9	33.9	33.6	33.1	4.13	4.46	4.65	4.85
37	41.8	40.7	40.2	39.7	37.6	36.6	36.2	35.7	4.19	4.52	4.72	4.92
42	44.9	43.8	43.2	42.7	40.4	39.4	38.9	38.4	4.26	4.60	4.79	4.99
47	48.1	46.8	46.2	45.6	48.1	46.8	46.2	45.6	4.33	4.68	4.87	5.07
52	51.3	49.9	49.2	48.6	51.3	49.9	49.2	48.6	4.42	4.76	4.95	5.15
57	54.4	52.9	52.2	51.5	54.4	52.9	52.2	51.5	4.51	4.85	5.04	5.24
62	57.5	55.9	55.1	54.3	57.5	55.9	55.1	54.3	4.60	4.95	5.14	5.34
67	57.3	55.5	54.6	53.7	57.3	55.5	54.6	53.7	4.58	4.92	5.10	5.29
72	60.5	58.5	57.6	56.7	60.5	58.5	57.6	56.7	4.70	5.04	5.22	5.42

For other airflow conditions, see heating capacity correction factor (Table PD-39).

Net heating capacity and power input includes indoor fan heat at ARI esp. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.

Note:

1. Integrated heating capacities and powers include the effects of defrost in the frost region. All heating capacities and power (kw) are at 70% OD relative humidity and demand defrost cycle.

Table PD-29 — 4 Ton Single Phase Heating Capacities (Net) WSC048A3,A4,AW At 1600 CFM

Outdoor Temp. F.	Instantaneous Heating Capacity (Btuh/1000) at Indicated Indoor Dry Bulb Temp.				Integrated Heating Capacity (Btuh/1000) at Indicated Indoor Dry Bulb Temp. ¹				Total Power in Kilowatts at Indicated Indoor Dry Bulb Temp.			
	60	70	75	80	60	70	75	80	60	70	75	80
-8	17.4	17.0	16.8	16.6	15.7	15.3	15.1	14.9	3.61	3.99	4.22	4.48
-3	19.5	19.1	18.8	18.6	17.6	17.2	16.9	16.7	3.57	3.96	4.20	4.48
2	21.9	21.3	21.2	21.1	19.7	19.2	19.1	19.0	3.65	4.02	4.24	4.50
7	24.3	23.7	23.5	23.4	21.9	21.3	21.2	21.1	3.69	4.05	4.27	4.52
12	27.0	26.3	26.1	25.9	24.3	23.7	23.5	23.3	3.73	4.09	4.31	4.54
17	29.7	28.9	28.7	28.5	26.7	26.0	25.8	25.7	3.78	4.14	4.35	4.58
22	32.5	31.7	31.4	31.1	29.3	28.5	28.3	28.0	3.83	4.19	4.40	4.62
27	35.5	34.6	34.3	33.9	32.0	31.1	30.9	30.5	3.89	4.24	4.45	4.67
32	38.6	37.7	37.3	36.9	34.7	33.9	33.6	33.2	3.95	4.30	4.51	4.72
37	41.7	40.7	40.2	39.8	37.5	36.6	36.2	35.8	4.01	4.37	4.57	4.78
42	44.8	43.7	43.2	42.7	40.3	39.3	38.9	38.4	4.08	4.44	4.64	4.85
47	48.0	46.8	46.3	45.7	48.0	46.8	46.3	45.7	4.16	4.52	4.72	4.93
52	51.2	49.9	49.3	48.7	51.2	49.9	49.3	48.7	4.25	4.61	4.81	5.01
57	54.4	53.0	52.3	51.7	54.4	53.0	52.3	51.7	4.35	4.71	4.90	5.10
62	57.6	56.0	55.3	54.5	57.6	56.0	55.3	54.5	4.45	4.81	5.00	5.20
67	57.4	55.7	54.8	53.9	57.4	55.7	54.8	53.9	4.45	4.79	4.97	5.16
72	60.7	58.8	57.9	57.0	60.7	58.8	57.9	57.0	4.58	4.93	5.11	5.30

For other airflow conditions, see heating capacity correction factor (Table PD-39).

Net heating capacity and power input includes indoor fan heat at ARI esp. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.

Note:

1. Integrated heating capacities and powers include the effects of defrost in the frost region. All heating capacities and power (kw) are at 70% OD relative humidity and demand defrost cycle.

Performance Data

(5 Ton)

Table PD-30 — 5 Ton Single Phase Heating Capacities (Net) WSC60A1 At 2000 CFM

Outdoor Temp. F.	Instantaneous Heating Capacity (Btuh/1000) at Indicated Indoor Dry Bulb Temp.				Integrated Heating Capacity (Btuh/1000) at Indicated Indoor Dry Bulb Temp. ¹				Total Power in Kilowatts at Indicated Indoor Dry Bulb Temp.			
	60	70	75	80	60	70	75	80	60	70	75	80
-8	21.4	20.4	20.0	19.7	19.3	18.4	18.0	17.7	4.44	4.82	5.02	5.22
-3	24.3	23.3	22.9	22.6	21.9	21.0	20.6	20.3	4.53	4.90	5.10	5.31
2	27.3	26.3	25.9	25.6	24.6	23.7	23.3	23.0	4.62	4.99	5.19	5.40
7	30.5	29.5	29.0	28.7	27.5	26.6	26.1	25.8	4.71	5.08	5.28	5.49
12	33.8	32.8	32.3	31.9	30.4	29.5	29.1	28.7	4.81	5.18	5.38	5.59
17	37.2	36.2	35.7	35.3	33.5	32.6	32.1	31.8	4.90	5.28	5.48	5.70
22	40.9	39.8	39.2	38.8	36.8	35.8	35.3	34.9	5.00	5.38	5.58	5.80
27	44.6	43.4	42.9	42.3	40.1	39.1	38.6	38.1	5.10	5.48	5.69	5.92
32	48.5	47.2	46.6	46.0	43.7	42.5	41.9	41.4	5.21	5.59	5.81	6.03
37	52.4	51.0	50.4	49.7	47.2	45.9	45.4	44.7	5.32	5.70	5.92	6.15
42	56.3	54.8	54.2	53.4	50.7	49.3	48.8	48.1	5.43	5.82	6.05	6.28
47	60.3	58.8	58.0	57.2	60.3	58.8	58.0	57.2	5.55	5.95	6.17	6.41
52	64.4	62.8	61.9	61.0	64.4	62.8	61.9	61.0	5.67	6.09	6.31	6.55
57	68.5	63.6	65.8	61.7	68.5	63.6	65.8	61.7	5.81	6.11	6.46	6.56
62	69.5	67.6	66.5	65.4	69.5	67.6	66.5	65.4	5.86	6.27	6.50	6.73
67	73.6	71.5	70.4	69.2	73.6	71.5	70.4	69.2	6.02	6.44	6.67	6.90
72	77.7	75.4	74.3	73.1	77.7	75.4	74.3	73.1	6.19	6.61	6.84	7.08

For other airflow conditions, see heating capacity correction factor (Table PD-39).

Net heating capacity and power input includes indoor fan heat at ARI esp. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.

Note:

1. Integrated heating capacities and powers include the effects of defrost in the frost region. All heating capacities and power (kw) are at 70% OD relative humidity and demand defrost cycle.

Table PD-31 — 5 Ton Three Phase Heating Capacities (Net) WSC060A3, A4, AW At 2000 CFM

Outdoor Temp. F.	Instantaneous Heating Capacity (Btuh/1000) at Indicated Indoor Dry Bulb Temp.				Integrated Heating Capacity (Btuh/1000) at Indicated Indoor Dry Bulb Temp. ¹				Total Power in Kilowatts at Indicated Indoor Dry Bulb Temp.			
	60	70	75	80	60	70	75	80	60	70	75	80
-8	21.1	20.1	19.7	19.4	19.0	18.1	17.7	17.5	4.30	4.69	4.90	5.11
-3	24.0	23.0	22.6	22.3	21.6	20.7	20.3	20.1	4.39	4.78	4.98	5.19
2	27.0	26.0	25.8	25.6	24.3	23.4	23.2	23.0	4.48	4.86	5.06	5.27
7	30.3	29.4	29.0	28.8	27.3	26.5	26.1	25.9	4.57	4.94	5.15	5.35
12	33.8	32.8	32.4	32.0	30.4	29.5	29.2	28.8	4.65	5.03	5.23	5.45
17	37.4	36.3	35.8	35.4	33.7	32.7	32.2	31.9	4.74	5.12	5.32	5.54
22	41.1	39.8	39.3	38.9	37.0	35.8	35.4	35.0	4.83	5.21	5.42	5.64
27	44.9	43.5	42.9	42.5	40.4	39.2	38.6	38.3	4.92	5.31	5.52	5.75
32	48.7	47.3	46.7	46.2	43.8	42.6	42.0	41.6	5.02	5.41	5.63	5.86
37	52.5	51.0	50.4	49.8	47.3	45.9	45.4	44.8	5.12	5.52	5.74	5.97
42	56.4	54.8	54.2	53.6	50.8	49.3	48.8	48.2	5.23	5.63	5.86	6.09
47	60.3	58.8	58.1	57.4	60.3	58.8	58.1	57.4	5.34	5.75	5.98	6.22
52	64.4	62.8	62.0	61.3	64.4	62.8	62.0	61.3	5.46	5.88	6.11	6.35
57	68.4	63.6	66.0	61.9	68.4	63.6	66.0	61.9	5.59	5.90	6.25	6.35
62	69.4	67.6	66.7	65.7	69.4	67.6	66.7	65.7	5.64	6.05	6.28	6.51
67	73.5	71.6	70.6	69.6	73.5	71.6	70.6	69.6	5.79	6.21	6.44	6.68
72	77.7	75.7	74.6	73.5	77.7	75.7	74.6	73.5	5.95	6.38	6.61	6.85

For other airflow conditions, see heating capacity correction factor (Table PD-39).

Net heating capacity and power input includes indoor fan heat at ARI esp. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.

Note:

1. Integrated heating capacities and powers include the effects of defrost in the frost region. All heating capacities and power (kw) are at 70% OD relative humidity and demand defrost cycle.



Performance Data

(6 Ton)

Table PD-32 — 6 Ton Heating Capacities (Net) WSC72A At 2400 CFM Downflow Configuration

Outdoor Temp.	Integrated Heating Capacity (Btuh/1000) at Indicated Indoor Dry Bulb Temp. ¹				Total Power in Kilowatts at Indicated Indoor Dry Bulb Temp.			
	F.	60	70	75	80	60	70	75
-8	23.9	23.4	23.2	23.0	4.40	4.75	4.95	5.17
-3	26.4	26.0	25.8	25.6	4.45	4.81	5.01	5.24
2	29.3	28.8	28.6	28.4	4.52	4.88	5.09	5.31
7	32.3	31.8	31.6	31.4	4.59	4.95	5.17	5.40
12	35.6	35.1	34.8	34.5	4.66	5.04	5.25	5.49
17	39.1	38.5	38.2	37.9	4.74	5.12	5.34	5.58
22	42.8	42.1	41.8	41.4	4.83	5.22	5.44	5.68
27	46.5	45.7	45.5	45.1	4.93	5.32	5.54	5.79
32	50.5	49.7	49.2	48.8	5.02	5.43	5.66	5.91
37	54.7	53.7	53.2	52.7	5.13	5.54	5.77	6.03
42	59.0	57.8	57.3	56.7	5.23	5.65	5.89	6.15
47	70.0	68.6	67.9	67.2	5.56	6.01	6.27	6.55
52	75.1	73.5	72.7	72.0	5.69	6.15	6.41	6.70
57	80.3	78.5	77.6	76.8	5.82	6.29	6.55	6.84
62	85.6	83.6	82.6	81.7	5.96	6.43	6.70	7.00
67	91.0	88.8	87.7	86.6	6.10	6.58	6.86	7.15
72	96.8	94.3	93.1	91.8	6.26	6.75	7.03	7.33

For other airflow conditions, see heating capacity correction factor (Table PD-39).

Net heating capacity and power input includes indoor fan heat at ARI esp. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.

Note:

1. Integrated heating capacities and powers include the effects of defrost in the frost region. All heating capacities and power (kw) are at 70% OD relative humidity and demand defrost cycle.

Table PD-33— 6 Ton Heating Capacities (Net) WSC072A At 2400 CFM Horizontal Configuration

Outdoor Temp.	Integrated Heating Capacity (Btuh/1000) at Indicated Indoor Dry Bulb Temp. ¹				Total Power in Kilowatts at Indicated Indoor Dry Bulb Temp.			
	F.	60	70	75	80	60	70	75
-8	24.2	23.7	23.5	23.3	4.48	4.83	5.03	5.25
-3	26.7	26.2	26.0	25.8	4.54	4.89	5.09	5.32
2	29.5	29.1	28.8	28.6	4.60	4.96	5.17	5.39
7	32.6	32.1	31.9	31.6	4.67	5.03	5.25	5.47
12	35.9	35.3	35.1	34.8	4.74	5.12	5.33	5.56
17	39.4	38.8	38.5	38.2	4.82	5.20	5.42	5.66
22	43.1	42.4	42.0	41.7	4.91	5.30	5.52	5.76
27	46.8	46.0	45.8	45.4	5.01	5.40	5.62	5.87
32	50.8	49.9	49.5	49.1	5.11	5.51	5.74	5.99
37	55.0	54.0	53.5	53.0	5.21	5.62	5.85	6.11
42	59.2	58.1	57.5	57.0	5.31	5.73	5.97	6.23
47	70.3	68.9	68.2	67.5	5.64	6.09	6.35	6.63
52	75.4	73.8	73.0	72.2	5.77	6.23	6.49	6.77
57	80.6	78.8	77.9	77.1	5.90	6.36	6.63	6.92
62	85.9	83.9	82.9	81.9	6.04	6.51	6.78	7.07
67	91.3	89.0	88.0	86.9	6.18	6.66	6.93	7.23
72	97.1	94.5	93.3	92.1	6.34	6.83	7.11	7.40

For other airflow conditions, see heating capacity correction factor (Table PD-39).

Net heating capacity and power input includes indoor fan heat at ARI esp. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.

Note:

1. Integrated heating capacities and powers include the effects of defrost in the frost region. All heating capacities and power (kw) are at 70% OD relative humidity and demand defrost cycle.



Performance Data

(7½ Ton)

Table PD-34 – 7½ Ton Heating Capacities (Net) WSC090A At 3000 CFM Downflow Configuration

Outdoor Temp. F.	Integrated Heating Capacity (Btuh/1000) at Indicated Indoor Dry Bulb Temp. ¹				Total Power in Kilowatts at Indicated Indoor Dry Bulb Temp.			
	60	70	75	80	60	70	75	80
-8	33.3	31.8	31.2	30.9	6.9	7.2	7.4	7.7
-3	36.3	35.0	34.5	34.2	6.9	7.2	7.4	7.7
2	39.7	38.4	38.0	37.7	6.9	7.2	7.5	7.8
7	43.2	42.2	41.7	41.4	6.9	7.3	7.6	7.9
12	47.0	45.9	45.5	45.2	6.9	7.4	7.6	7.9
17	51.1	50.1	49.7	49.3	7.0	7.4	7.7	8.0
22	55.4	54.4	54.0	53.6	7.0	7.5	7.8	8.1
27	60.2	59.1	58.6	58.2	7.1	7.6	7.9	8.3
32	65.3	64.1	63.6	63.1	7.2	7.7	8.0	8.4
37	70.4	69.1	68.5	68.0	7.3	7.8	8.2	8.5
42	75.6	74.3	73.6	73.0	7.4	8.0	8.3	8.7
47	90.2	88.6	87.8	87.0	7.5	8.1	8.5	8.8
52	96.7	94.9	94.0	93.2	7.6	8.2	8.6	9.0
57	103.4	101.4	100.5	99.5	7.8	8.4	8.8	9.2
62	110.2	108.1	107.0	106.0	7.9	8.6	9.0	9.4
67	117.2	114.8	113.6	112.5	8.1	8.8	9.2	9.6
72	124.3	121.7	120.5	119.1	8.3	9.0	9.4	9.8

For other airflow conditions, see heating capacity correction factor (Table PD-39).

Net heating capacity and power input includes indoor fan heat at ARI esp. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.

Note:

1. Integrated heating capacities and powers include the effects of defrost in the frost region. All heating capacities and power (kw) are at 70% OD relative humidity and demand defrost cycle.

Table PD-35 – 7½ Ton Heating Capacities (Net) WSC090A At 3000 CFM Horizontal Configuration

Outdoor Temp. F.	Integrated Heating Capacity (Btuh/1000) at Indicated Indoor Dry Bulb Temp. ¹				Total Power in Kilowatts at Indicated Indoor Dry Bulb Temp.			
	60	70	75	80	60	70	75	80
-8	33.7	32.2	31.7	31.3	7.0	7.3	7.5	7.7
-3	36.8	35.4	34.9	34.6	7.0	7.3	7.5	7.8
2	40.1	38.8	38.4	38.1	7.0	7.3	7.6	7.8
7	43.6	42.5	42.1	41.8	7.0	7.4	7.6	7.9
12	47.4	46.3	45.9	45.6	7.0	7.4	7.7	8.0
17	51.4	50.4	50.0	49.7	7.1	7.5	7.8	8.1
22	55.8	54.7	54.3	53.9	7.1	7.6	7.9	8.2
27	60.5	59.4	58.9	58.4	7.2	7.7	8.0	8.3
32	65.5	64.4	63.8	63.3	7.3	7.8	8.1	8.4
37	70.6	69.4	68.8	68.2	7.3	7.9	8.2	8.6
42	75.8	74.5	73.8	73.2	7.4	8.0	8.4	8.7
47	90.4	88.8	88.0	87.2	7.6	8.2	8.5	8.9
52	96.9	95.1	94.2	93.3	7.7	8.3	8.7	9.1
57	103.5	101.5	100.6	99.6	7.8	8.5	8.8	9.2
62	110.3	108.1	107.1	106.0	8.0	8.6	9.0	9.4
67	117.2	114.9	113.7	112.5	8.2	8.8	9.2	9.6
72	124.3	121.7	120.5	119.2	8.3	9.0	9.4	9.8

For other airflow conditions, see heating capacity correction factor (Table PD-39).

Net heating capacity and power input includes indoor fan heat at ARI esp. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.

Note:

1. Integrated heating capacities and powers include the effects of defrost in the frost region. All heating capacities and power (kw) are at 70% OD relative humidity and demand defrost cycle.



Performance Data (10 Ton)

Table PD-36— 10 Ton Heating Capacities (Net) WSC120A At 4000 CFM Downflow Configuration

Outdoor Temp.	Integrated Heating Capacity (Btuh/1000) at Indicated Indoor Dry Bulb Temp. ¹				Total Power in Kilowatts at Indicated Indoor Dry Bulb Temp.			
	60	70	75	80	60	70	75	80
F.								
8	39.6	39.4	39.4	39.5	7.15	7.76	8.11	8.49
-3	43.3	43.0	43.0	43.0	7.22	7.83	8.18	8.56
2	47.3	47.0	46.9	46.9	7.30	7.91	8.26	8.64
7	51.7	51.3	51.2	51.1	7.39	8.00	8.35	8.72
12	56.4	55.8	55.7	55.5	7.48	8.09	8.44	8.82
17	61.3	60.7	60.4	60.3	7.56	8.17	8.53	8.91
22	66.6	65.8	65.5	65.2	7.65	8.27	8.62	9.01
27	72.2	71.3	70.9	70.5	7.74	8.36	8.72	9.11
32	78.1	77.0	76.5	76.1	7.83	8.46	8.82	9.21
37	83.1	82.9	82.3	81.8	7.89	8.56	8.93	9.32
42	90.5	89.0	88.3	87.7	8.02	8.67	9.04	9.44
47	111.7	109.8	108.9	108.0	8.93	9.68	10.11	10.57
52	119.8	117.6	116.5	115.5	9.05	9.82	10.25	10.72
57	128.1	125.6	124.4	123.3	9.18	9.96	10.40	10.88
62	136.7	133.8	132.5	131.2	9.32	10.11	10.56	11.05
67	145.3	142.1	141.0	139.5	9.46	10.27	10.75	11.24
72	155.2	151.6	149.9	148.3	9.66	10.48	10.95	11.45

For other airflow conditions, see heating capacity correction factor (Table PD-39).

Net heating capacity and power input includes indoor fan heat at ARI esp. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.

Note:

1. Integrated heating capacities and powers include the effects of defrost in the frost region. All heating capacities and power (kw) are at 70% OD relative humidity and demand defrost cycle.

Table PD-37— 10 Ton Heating Capacities (Net) WSC120A At 4000 CFM Horizontal Configuration

Outdoor Temp.	Integrated Heating Capacity (Btuh/1000) at Indicated Indoor Dry Bulb Temp. ¹				Total Power in Kilowatts at Indicated Indoor Dry Bulb Temp.			
	60	70	75	80	60	70	75	80
F.								
-8	40.0	39.7	39.7	39.8	7.24	7.85	8.20	8.58
-3	43.6	43.3	43.3	43.3	7.32	7.93	8.27	8.65
2	47.7	47.3	47.2	47.2	7.40	8.00	8.35	8.73
7	52.1	51.6	51.5	51.4	7.49	8.09	8.44	8.81
12	56.7	56.2	56.0	55.8	7.57	8.18	8.53	8.90
17	61.7	61.0	60.8	60.6	7.66	8.26	8.62	9.00
22	66.9	66.1	65.8	65.5	7.74	8.36	8.71	9.09
27	72.5	71.6	71.2	70.8	7.83	8.45	8.81	9.19
32	78.5	77.3	76.8	76.4	7.92	8.55	8.91	9.30
37	83.4	83.2	82.6	82.1	7.98	8.65	9.01	9.41
42	90.8	89.3	88.6	88.0	8.11	8.75	9.12	9.52
47	112.0	110.1	109.2	108.3	9.01	9.76	10.19	10.65
52	120.1	117.8	116.8	115.8	9.14	9.90	10.33	10.80
57	128.4	125.9	124.6	123.5	9.27	10.04	10.48	10.96
62	137.0	134.1	132.7	131.5	9.40	10.19	10.64	11.12
67	145.6	142.3	141.2	139.8	9.55	10.35	10.82	11.31
72	155.4	151.8	150.2	148.5	9.74	10.56	11.03	11.52

For other airflow conditions, see heating capacity correction factor (Table PD-39).

Net heating capacity and power input includes indoor fan heat at ARI esp. To obtain net heating at other conditions, subtract fan heat at this condition and add fan heat at new condition.

Note:

1. Integrated heating capacities and powers include the effects of defrost in the frost region. All heating capacities and power (kw) are at 70% OD relative humidity and demand defrost cycle.

Performance Data

Table PD-38 — Auxiliary Electric Heat Capacity

Tons	Unit Model No.	Total ²			Stage 1		Stage 2	
		KW Input ¹	MBh Output ¹	No. of Stages	KW Input ¹	MBh Output ¹	KW Input ¹	MBh Output ¹
3	WSC036A1	5.00	17.07	1	5.00	17.07	—	—
		10.00	34.14	2	5.00	17.07	5.00	17.07
		13.80	47.11	2	8.80	30.04	5.00	17.07
	WSC036A3, A4	6.00	20.48	1	6.00	20.48	—	—
		12.00	40.97	2	6.00	20.48	6.00	20.48
		17.40	59.40	2	8.70	29.70	8.70	29.70
4, 5	WSC048, 060A1	5.00	17.07	1	5.00	17.07	—	—
		10.00	34.14	2	5.00	17.07	5.00	17.07
		13.80	47.11	2	8.80	30.04	5.00	17.07
		17.60	60.09	2	8.80	30.04	8.80	30.04
4	WSC048A3, A4, AW	6.00	20.48	1	6.00	20.48	—	—
		12.00	40.97	2	6.00	20.48	6.00	20.48
		17.40	59.40	2	8.70	29.70	8.70	29.70
5	WSC060A3, A4, AW	6.00	20.48	1	6.00	20.48	—	—
		12.00	40.97	2	6.00	20.48	6.00	20.48
		17.40	59.40	2	8.70	29.70	8.70	29.70
		23.00	78.52	2	14.30	48.82	8.70	29.70
6	WSC072A3, A4, AW	9.00	30.73	1	9.00	30.73	—	—
		18.00	61.45	1	18.00	61.45	—	—
		27.00	92.18	2	18.00	61.45	9.00	30.73
		36.00	122.90	2	18.00	61.45	18.00	61.45
7½	WSC090A3, A4, AW	9.00	30.73	1	9.00	30.73	—	—
		18.00	61.45	1	18.00	61.45	—	—
		27.00	92.18	2	18.00	61.45	9.00	30.73
		36.00	122.90	2	18.00	61.45	18.00	61.45
10	WSC120A3, A4, AW	8.00	61.45	1	18.00	61.45	—	—
		27.00	92.18	2	18.00	61.45	9.00	30.73
		36.00	122.90	2	18.00	61.45	18.00	61.45
		54.00	184.36	2	36.00	122.90	18.00	61.45

Notes:

1. Does not include indoor fan power or heat.

2. Heaters are rated at 240v, 480v, and 600v. For other than rated voltage, CAP = $\left(\frac{\text{Voltage}}{\text{Rated Voltage}}\right)^2 \times \text{rated cap.}$

Table PD-39 — Electric Heater Voltage Correction Factors (Applicable to Auxiliary Heat Capacity)

Nominal Voltage	Distribution Voltage	Capacity Multiplier
240	208	0.751
	230	0.918
	240	1.000
480	440	0.840
	460	0.918
	480	1.000
600	540	0.810
	575	0.918
	600	1.000



Performance Data

Table PD-40 — Air Temperature Rise Across Electric Heaters (Degree F)

KW	Stages	3Ton ₁ 1200 CFM		4Ton ₂ 1600 CFM		5 Ton ₃ 2000 CFM	
		Single Phase	ThreePhase	Single Phase	ThreePhase	Single Phase	ThreePhase
		WSC036A11	WSC036A3,A4,AW	WSC048A1	WSC048A3,A4,AW	WSC060A1	WSC060A3,A4,AW
5.00	1	13.2	—	9.9	—	7.9	—
6.00	1	—	15.8	—	11.9	—	9.5
10.00	2	26.3	—	19.8	—	15.8	—
12.00	2	—	31.6	—	23.7	—	19.0
13.80	2	36.4	—	27.3	—	21.8	—
17.40	2	—	45.8	—	34.4	—	27.5
17.60	2	—	—	34.8	—	27.8	—
23.00	2	—	—	—	—	—	36.4

For minimum design airflow, see airflow performance table for each unit.

To calculate temp rise at different air flow, use following formula:

$$\text{Temp. Rise across Elect. Htr} = \frac{\text{kW} \times 3414}{1.08 \times \text{CFM}}$$

Notes:

1. The minimum allowable airflow for a 3 ton with a 17.4 KW heater is 1020 CFM.
2. The minimum allowable airflow for a 4 ton with a 17.4 or 17.6 KW heater is 1440 CFM.
3. The minimum allowable airflow for a 5 ton with a 23.0 KW heater is 1900 CFM.

Table PD-41 — 6-10 Tons Air Temperature Rise Across Electric Heaters (Degrees F)

KW	Stages	6 Ton	7½ Ton	10 Ton
		2000	3000 CFM	4000 CFM
		WSC072A3, A4, AW	WSC090A3, A4, AW	WS120A3,A4,AW
9.00	1	14.2	9.5	—
18.00	1	28.5	19.0	14.2
27.00	2	42.7	28.5	21.3
36.00	2	56.9 ¹	37.9	28.5
54.00	2	—	—	42.7

For minimum design airflow, see airflow performance table for each unit.

To calculate temp rise at different air flow, use following formula:

$$\text{Temp. Rise across Elect. Htr} = \frac{\text{kW} \times 3414}{1.08 \times \text{CFM}}$$

Note:

1. Minimum allowable airflow for a 6 ton with a 36.0 KW heater is 2450 cfm.

Table PD-42 — Electric Heater Temperature Rise Correction Factors

% Variation From Nominal CFM	- 20	- 15	- 10	- 5	0	+5	+10	+15	+20
Temperature Rise Multiplier	1.25	1.17	1.11	1.05	1.00	0.95	0.91	0.87	0.83

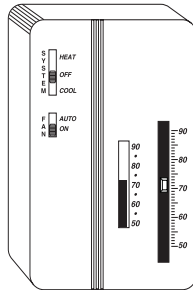
Controls

ReliaTel™ Controlled Units

Zone Sensors are the building occupant's comfort control devices for Precedent™ units with the Micro control:

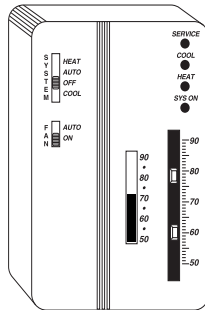
Manual Changeover

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



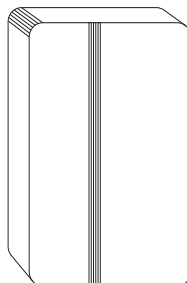
Manual/Automatic Changeover

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



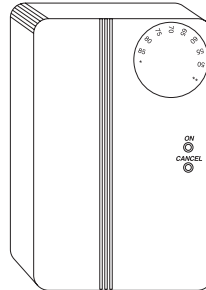
Remote Sensor

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.

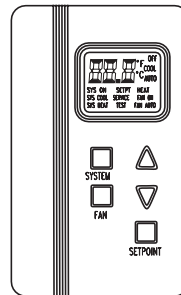


Dual Thermistor Remote Zone Sensor

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.

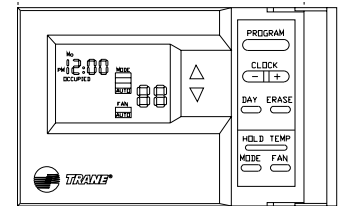
Digital Display Zone Sensor

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.



Programmable Night Setback

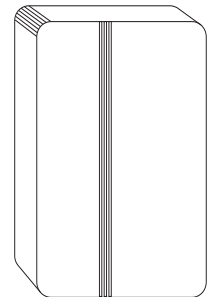
Auto or manual changeover with seven-day programming. Keyboard selection of



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) Un-occupied, and two (2) Override programs per day.

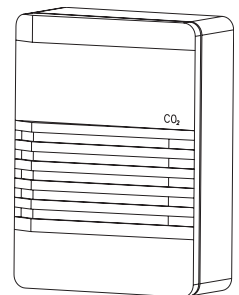
Humidity Sensor

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.



CO₂ Sensing

The CO₂ sensor shall have the ability to monitor space occupancy levels within the building by measuring the parts per million of CO₂ (Carbon Dioxide) in the air. As the CO₂ levels increase, the outside air damper modulates to meet the CO₂ space ventilation requirements. The CO₂ accessory shall be available as field installed.





Electrical Data

Table ED-1 – Unit Wiring

Tons	Unit Model No.	Unit Operating Voltage Range ²	Standard Indoor Fan Motor		Oversize Indoor Fan Motor		Optional Belt Drive Indoor Fan Motor ³	
			Minimum Circuit Ampacity	Maximum Fuse Size or Maximum Circuit Breaker ¹	Minimum Circuit Ampacity	Maximum Fuse Size or Maximum Circuit Breaker ¹	Minimum Circuit Ampacity	Maximum Fuse Size or Maximum Circuit Breaker ¹
3	WSC036A1	187-253	26.2	40	28.6	45	N/A	N/A
	WSC036A3	187-253	19.1	30	21.5	30	21.8	30
	WSC036A4	414-506	9.9	15	11.1	15	11.3	15
	WSC036AW	517-633	8.3	15	8.9	15	8.9	15
4	WSC048A1	187-253	39.7	60	41.8	60	N/A	N/A
	WSC048A3	187-253	24.4	35	26.5	40	25.8	40
	WSC048A4	414-506	12.1	15	13.7	20	12.9	20
	WSC048AW	517-633	10.1	15	10.9	15	10.3	15
5	WSC060A1	187-253	48.7	60	50.4	60	N/A	N/A
	WSC060A3	187-253	32.6	50	34.3	50	31.4	50
	WSC060A4	414-506	16.6	25	16.9	25	16.2	25
	WSC060AW	517-633	13.1	20	13.7	20	12.7	20
6	WSC072A3	187-253	32.2	50	33.5	50	—	—
	WSC072A4	414-506	16.6	25	17.2	25	—	—
	WSC072AW	517-633	12.5	15	13.5	20	—	—
7½	WSC090A3	187-253	41.4	60	45.8	60	—	—
	WSC090A4	414-506	21.9	35	24.0	35	—	—
	WSC090AW	517-633	16.8	25	18.8	25	—	—
10	WSC120A3	187-253	50.4	60	57.5	70	—	—
	WSC120A4	414-506	26.4	35	29.9	35	—	—
	WSC120AW	517-633	21.0	25	23.9	30	—	—

Notes:

1. HACR breaker per NEC.
2. Heater KW ratings are at 208-240volt for 208-230 volt units.
3. Optional Belt Drive motor applies to 3-5 ton models only.
The standard motor for 6-10 ton models is belt drive.



Electrical Data

Table ED-2 – Unit Wiring With Electric Heat (Single Point Connection) – 208/230 Volts Single and Three Phase

Tons	To Use With	Heater Model No.	Heater KW Rating ¹	Control Stages	Standard Indoor Motor		Oversize Indoor Motor	
					MCA	Max Fuse Size or Max Circuit Breaker ²	MCA	Max Fuse Size or Max Circuit Breaker ²
208/230 Volts Single Phase								
3	WSC036A1	BAYHTRR105A	3.8/5.0	1	48.8/52.2	60/60	51.2/54.6	60/60
		BAYHTRR110A	7.5/10.0	2	71.3/78.3	80/80	73.7/80.7	80/90
		BAYHTRR114A	10.4/13.8	2	88.4/98.1	90/100	90.8/100.5	100/110
4	WSC048A1	BAYHTRR105A	3.8/5.0	1	62.4/65.7	80/80	64.5/67.8	80/80
		BAYHTRR110A	7.5/10.0	2	84.9/91.9	100/100	87.0/94.0	100/110
		BAYHTRR114A	10.4/13.8	2	102.0/111.6	110/125	104.1/113.7	110/125
		BAYHTRR118A	13.2/17.6	2	119.2/131.4	125/150	121.3/133.5	125/150
5	WSC060A1	BAYHTRR105A	3.8/5.0	1	71.3/74.7	90/100	73.0/76.4	100/100
		BAYHTRR110A	7.5/10.0	2	93.8/100.8	110/110	95.5/102.5	110/110
		BAYHTRR114A	10.4/13.8	2	111.0/120.6	125/125	112.7/122.3	125/125
		BAYHTRR118A	13.2/17.6	2	128.2/140.3	150/150	129.9/142.0	150/150
208/230 Volts Three Phase								
3	WSC036A3	BAYHTRR306A	4.5/6.0	1	34.7/37.1	40/45	37.1/39.5	45/45
		BAYHTRR312A	9.0/12.0	2	50.3/55.2	60/60	52.7/57.6	60/60
		BAYHTRR318A	13.1/17.4	2	64.4/71.4	70/80	66.8/73.8	70/80
4	WSC048A3	BAYHTRR306A	4.5/6.0	1	40.0/42.4	50/50	42.1/44.5	50/50
		BAYHTRR312A	9.0/12.0	2	55.6/60.5	60/70	57.7/62.6	60/70
		BAYHTRR318A	13.1/17.4	2	69.7/76.7	70/80	71.8/78.8	80/80
5	WSC060A3	BAYHTRR306A	4.5/6.0	1	48.2/50.6	60/60	49.9/52.3	60/60
		BAYHTRR312A	9.0/12.0	2	63.8/68.7	70/80	65.5/70.4	70/80
		BAYHTRR318A	13.1/17.4	2	78.0/85.0	80/90	79.7/86.7	80/90
		BAYHTRR323A	17.3/23.0	2	92.6/101.7	100/110	94.3/103.4	100/110
6	WSC072A3	BAYHTRS309A	6.8/9.0	1	55.7/59.3	60/60	57.0/60.6	60/70
		BAYHTRS318A	13.5/18.0	1	79.0/86.3	80/90	80.3/87.6	90/90
		BAYHTRS327A	20.3/27.0	2	102.5/113.4	110/125	103.8/114.7	110/125
		BAYHTRS336A	27.0/36.0	2	126.0/140.4	150/150	127.3/141.7	150/150
7½	WSC090A3	BAYHTRS309A	6.8/9.0	1	64.9/68.5	80/90	69.3/72.9	90/90
		BAYHTRS318A	13.5/18.0	1	88.3/95.5	100/100	92.7/99.9	100/100
		BAYHTRS327A	20.3/27.0	2	111.8/122.7	125/125	116.2/127.1	125/150
		BAYHTRS336A	27.0/36.0	2	135.8/149.7	150/150	139.7/154.1	150/175
10	WSC120A3	BAYHTRT318A	13.5/18.0	1	97.3/104.6	100/110	104.4/111.7	110/125
		BAYHTRT327A	20.3/27.0	2	120.8/131.7	125/150	127.9/138.8	150/150
		BAYHTRT336A	27.0/36.0	2	144.3/158.7	150/175	151.4/165.8	175/175
		BAYHTRT354A	40.6/54.0	2	191.2/180.3	200/200	198.3/187.4	200/200

Notes:

1. Heater kw ratings are at 208/240 for 208/230V unit
2. HACR type circuit breaker per NEC.



Electrical Data

Table ED-3 — Unit Wiring With Electric Heat (Single Point Connection) — 460 Volts Three Phase

Tons	To Use With	Heater Model No.	Heater KW Rating ¹	Control Stages	Standard Indoor Motor		Oversize Indoor Motor	
					MCA	Max Fuse Size or Max Circuit Breaker ²	MCA	Max Fuse Size or Max Circuit Breaker ²
460 Volts Three Phase								
3	WSC036A4	BAYHTRR406A	6.0	1	18.9	20	20.1	25
		BAYHTRR412A	12.0	2	27.9	30	29.1	30
		BAYHTRR418A	17.4	2	36.0	40	37.2	40
4	WSC048A4	BAYHTRR406A	6.0	1	21.0	25	22.7	25
		BAYHTRR412A	12.0	2	30.1	35	31.7	35
		BAYHTRR418A	17.4	2	38.3	40	39.9	40
5	WSC060A4	BAYHTRR406A	6.0	1	25.6	30	25.9	30
		BAYHTRR412A	12.0	2	34.6	40	34.9	40
		BAYHTRR418A	17.4	2	42.7	45	43.0	45
		BAYHTRR423A	23.0	2	51.2	60	51.5	60
6	WSC072A4	BAYHTRS409A	9.0	1	30.1	35	30.7	35
		BAYHTRS418A	18.0	1	43.8	45	44.4	45
		BAYHTRS427A	27.0	2	57.3	60	57.9	60
		BAYHTRS436A	36.0	2	70.8	80	71.4	80
7½	WSC090A4	BAYHTRS409A	9.0	1	35.4	45	37.5	45
		BAYHTRS418A	18.0	1	49.0	50	51.1	60
		BAYHTRS427A	27.0	2	62.5	70	64.6	70
		BAYHTRS436A	36.0	2	76.0	80	78.1	80
10	WSC120A4	BAYHTRT418A	18.0	1	53.5	60	57.0	60
		BAYHTRT427A	27.0	2	67.0	70	70.5	70
		BAYHTRT436A	36.0	2	80.5	90	84.0	90
		BAYHTRT454A	54.0	2	91.4	100	94.9	100
575 Volts Three Phase								
3	WSC036AW	BAYHTRRW06A	6.0	1	15.6	20	16.2	20
		BAYHTRRW12A	12.0	2	22.7	25	23.3	25
		BAYHTRRW18A	17.4	2	29.2	30	29.8	30
4	WSC048AW	BAYHTRRW06A	6.0	1	17.4	20	18.2	20
		BAYHTRRW12A	12.0	2	24.5	25	25.3	30
		BAYHTRRW18A	17.4	2	31.0	35	31.8	35
5	WSC060AW	BAYHTRRW06A	6.0	1	20.3	25	20.9	25
		BAYHTRRW12A	12.0	2	27.5	30	28.1	30
		BAYHTRRW18A	17.4	2	34.0	35	34.6	35
		BAYHTRRW23A	23.0	2	40.7	45	41.3	45
6	WSC072AW	BAYHTRSW09A	9.0	1	23.3	25	24.1	25
		BAYHTRSW18A	18.0	1	34.1	35	34.9	35
		BAYHTRSW27A	27.0	2	45.0	45	45.8	50
		BAYHTRSW36A	36.0	2	55.7	60	56.5	60
7½	WSC090AW	BAYHTRSW09A	9.0	1	27.7	35	29.7	35
		BAYHTRSW18A	18.0	1	38.5	45	40.5	45
		BAYHTRSW27A	27.0	2	49.3	50	51.3	60
		BAYHTRSW36A	36.0	2	60.1	70	62.1	70
10	WSC120AW	BAYHTRTW18A	18.0	1	42.6	45	45.4	45
		BAYHTRTW27A	27.0	2	53.5	60	56.4	60
		BAYHTRTW36A	36.0	2	64.2	70	67.1	70
		BAYHTRTW54A	54.0	2	73.0	80	75.9	80

Notes:
 1. Heater kw ratings are at 208/240 for 208/230V unit
 2. HACR type circuit breaker per NEC.



Electrical Data

Table ED-4— Unit Wiring With Electric Heat (Single Point Connection) — Optional Belt Drive Indoor Motor

Tons	To Use With	Heater Model No.	Heater KW Rating ¹	Control Stages	Optional Belt Drive Indoor Motor	
					MCA	Max Fuse Size or Max Circuit Breaker ²
208/230 Volts Three Phase						
3	WSC036A3	BAYHTRR306A	4.5/6.0	1	37.4/39.8	45/45
		BAYHTRR312A	9.0/12.0	2	53.0/57.9	60/60
		BAYHTRR318A	13.1/17.4	2	67.1/74.1	70/80
4	WSC048A3	BAYHTRR306A	4.5/6.0	1	41.4/43.8	50/50
		BAYHTRR312A	9.0/12.0	2	57.0/61.9	60/70
		BAYHTRR318A	13.1/17.4	2	71.1/78.1	80/80
5	WSC060A3	BAYHTR306A	4.5/6.0	1	47.0/49.4	60/60
		BAYHTRR312A	9.0/12.0	2	62.6/67.5	70/70
		BAYHTRR318A	13.1/17.4	2	76.8/83.8	80/90
		BAYHTRR323A	17.3/23.0	2	91.4/100.5	100/110
460 Volts Three Phase						
3	WSC036A4	BAYHTRR406A	6.0	1	20.3	25
		BAYHTRR412A	12.0	2	29.3	30
		BAYHTRR418A	17.4	2	37.4	40
4	WSC048A4	BAYHTRR406A	6.0	1	21.9	25
		BAYHTRR412A	12.0	2	30.9	35
		BAYHTRR418A	17.4	2	39.1	40
5	WSC060A4	BAYHTRR406A	6.0	1	25.2	30
		BAYHTRR412A	12.0	2	34.2	40
		BAYHTRR418A	17.4	2	42.3	45
		BAYHTRR423A	23.0	2	50.8	60
575 Volts Three Phase						
4	WSC036AW	BAYHTRRW06A	6.0	1	16.2	20
		BAYHTRRW12A	12.0	2	23.3	25
		BAYHTRRW18A	17.4	2	29.8	30
4	WSC048AW	BAYHTRRW06A	6.0	1	17.6	20
		BAYHTRRW12A	12.0	2	24.7	25
		BAYHTRRW18A	17.4	2	31.2	35
5	WSC060AW	BAYHTRRW06A	6.0	1	19.9	20
		BAYHTRRW12A	12.0	2	27.1	30
		BAYHTRRW18A	17.4	2	33.6	35
		BAYHTRRW23A	23.0	2	40.3	45

Notes:

1. Heater kw ratings are at 208/240 for 208/230V unit
2. HACR type circuit breaker per NEC.



Electrical Data

Table ED-5 – Electrical Characteristics – Evaporator Fan Motors – 60 Cycle – Standard and Oversized Evaporator Fan Motor

Tons	Unit Model No.	Standard Evaporator Fan Motor						Oversized Evaporator Fan Motor					
		No.	Volts	Phase	HP	Amps		No.	Volts	Phase	HP	Amps	
						FLA	LRA					FLA	LRA
3	WSC036A1	1	208-230	1	.33	2.3	3.9	1	208-230	1	.50	4.7	9.8
	WSC036A3	1	208-230	1	.33	2.3	3.9	1	208-230	1	.50	4.7	9.8
	WSC036A4	1	460	1	.33	1.1	2.0	1	460	1	.50	2.3	5.2
	WSC036AW	1	575	1	.33	1.1	1.8	1	460	1	.50	1.7	3.6
4	WSC048A1	1	208-230	1	.60	3.6	6.6	1	208-230	1	.80	5.7	13.6
	WSC048A3	1	208-230	1	.60	3.6	6.6	1	208-230	1	.80	5.7	13.6
	WSC048A4	1	460	1	.60	1.7	2.8	1	460	1	.80	3.3	7.2
	WSC048AW	1	575	1	.60	1.5	2.4	1	575	1	.80	2.3	5.8
5	WSC060A1	1	208-230	1	.90	6.2	14.3	1	208-230	1	1.0	7.9	16.4
	WSC060A3	1	208-230	1	.90	6.2	14.3	1	208-230	1	1.0	7.9	16.4
	WSC060A4	1	460	1	.90	2.9	6.6	1	460	1	1.0	3.2	8.2
	WSC060AW	1	575	1	.90	2.1	4.9	1	575	1	1.0	2.7	5.0
6	WSC072A3	1	208-230	3	1.0	5.0	32.2	1	208-230	3	2.0	6.3	48.0
	WSC072A4	1	460	3	1.0	2.5	16.1	1	460	3	2.0	3.1	24.0
	WSC072AW	1	575	3	1.0	1.7	13.2	1	575	3	2.0	2.5	18.2
7½	WSC090A3	1	208-230	3	1.0	5.0	32.2	1	208-230	3	3.0	9.4	83.0
	WSC090A4	1	460	3	1.0	2.5	16.1	1	460	3	3.0	4.6	42.0
	WSC090AW	1	575	3	1.0	1.7	13.2	1	575	3	3.0	3.7	31.0
10	WSC120A3	1	208-230	3	2.0	6.3	56.2	1	208-230	3	5.0	13.4	112.0
	WSC120A4	1	460	3	2.0	3.1	27.6	1	460	3	5.0	6.6	56.0
	WSC120AW	1	575	3	2.0	2.3	22.2	1	575	3	5.0	5.4	44.0

Table ED-6 – Electrical Characteristics – Evaporator Fan Motors – 60 Cycle – Optional Belt Drive

Tons	Model No.	No.	Volts	Phase	HP	Amps	
						FLA	LRA
3	WSC036A3	1	208-230	3	1.0	5.0	32.2
	WSC036A4	1	460	3	1.0	2.5	16.1
	WSC036AW	1	575	3	1.0	1.7	13.2
4	WSC048A3	1	208-230	3	1.0	5.0	32.2
	WSC048A4	1	460	3	1.0	2.5	16.1
	WSC048AW	1	575	3	1.0	1.7	13.2
5	WSC060A3	1	208-230	3	1.0	5.0	32.2
	WSC060A4	1	460	3	1.0	2.5	16.1
	WSC060AW	1	575	3	1.0	1.7	13.2



Electrical Data

Table ED-7 — Electrical Characteristics — Compressor Motor And Condenser Motor — 60 Cycle

Tons	Unit Model No.	Compressor Motor						Condenser Fan Motor					
		No.	Volts	Phase	HP ²	RPM	AMPS ¹		No.	Phase	HP	AMPS	
							RLA	LRA				FLA	LRA
3	WSC036A1	1	208-230	1	3.1	3450	17.5	104.0	1	1	.20	1.5	2.5
	WSC036A3	1	208-230	3	3.1	3450	11.8	74.0	1	1	.20	1.5	2.5
	WSC036A4	1	460	3	3.1	3450	6.3	37.6	1	1	.20	0.6	1.3
	WSC036AW	1	575	3	3.1	3450	5.2	30.4	1	1	.20	0.5	1.2
4	WSC048A1	1	208-230	1	3.9	3450	26.9	131.0	1	1	.33	2.0	6.6
	WSC048A3	1	208-230	3	3.9	3450	14.6	91.0	1	1	.33	2.0	6.6
	WSC048A4	1	460	3	3.9	3450	7.3	46.0	1	1	.33	1.2	2.5
	WSC048AW	1	575	3	3.9	3450	6.0	37.0	1	1	.33	0.7	1.5
5	WSC060A1	1	208-230	1	5.1	3450	32.0	144.0	1	1	.33	2.0	6.6
	WSC060A3	1	208-230	3	5.1	3450	19.1	128.0	1	1	.33	2.0	6.6
	WSC060A4	1	460	3	5.1	3450	9.9	63.0	1	1	.33	1.2	2.5
	WSC060AW	1	575	3	5.1	3450	7.9	49.0	1	1	.33	0.7	1.5
6	WSC072A3	1	208-230	3	6.0	3450	18.6	156.0	1	1	.70	3.85	9.30
	WSC072A4	1	460	3	6.0	3450	9.3	75.0	1	1	.70	2.50	5.80
	WSC072AW	1	575	3	6.0	3450	7.4	54.0	1	1	.70	1.54	3.60
7½	WSC090A3	1	208-230	3	7.5	3450	26.0	181.5	1	1	.70	3.85	9.30
	WSC090A4	1	460	3	7.5	3450	13.5	95.0	1	1	.70	2.50	5.80
	WSC090AW	1	575	3	7.5	3450	10.9	69.0	1	1	.70	1.54	3.60
10	WSC120A3	2	208-230	3	4.8	3450	17.3	123	1	1	.75	4.0	9.4
	WSC120A4	2	460	3	4.8	3450	9.0	62.0	1	1	.75	2.8	6.8
	WSC120AW	2	575	3	4.8	3450	7.1	50.0	1	1	.75	2.4	6.2

Notes:

1. Amp draw for each motor; multiply values by number of motors to determine total amps.
2. HP for each compressor.

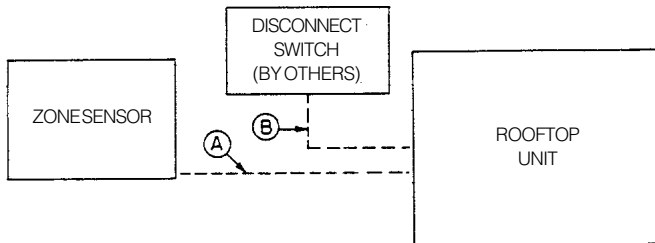
Table ED-8 — Electrical Characteristics — Power Exhaust

Tons	Volts	Phase	HP	RPM ¹	FLA	LRA
6-10	208-230	1	0.87	1075	5.7	16.3
6-10	460	1	0.87	1075	3.3	6.8
6-10	575	1	0.87	1075	2.3	5.4

Note:

1. Two speed.

Jobsite Connections



Zone Sensors — Typical Number Of Wires

A— Manual Changeover	6
Manual/Auto Changeover	7
Manual/Auto Changeover with Status Indication LED's	10
Programmable Night Setback with Status Indication LED's	7
B— 3 Power Wires + 1 Ground Wire (three phase)	
2 Power Wires + 1 Ground Wire (single phase)	

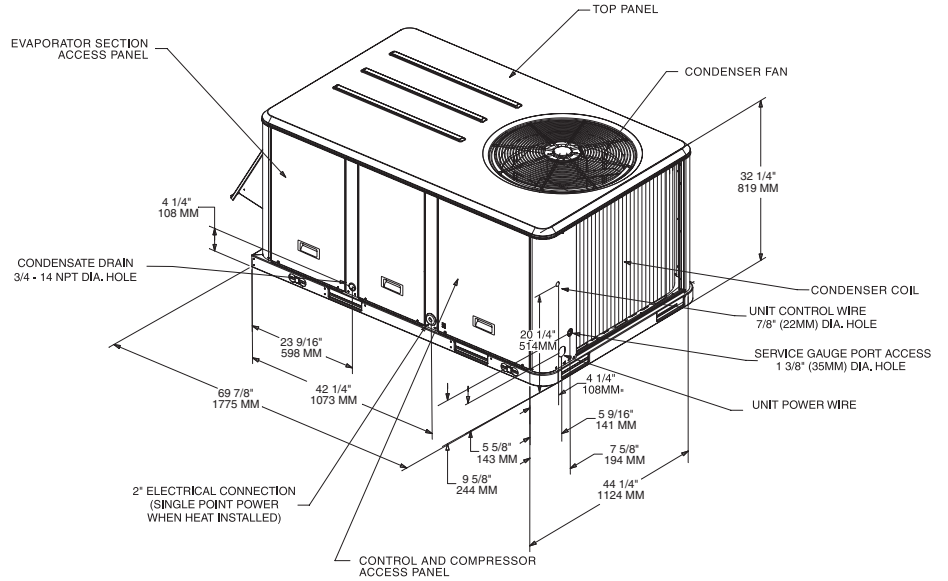
For specific wiring information, see the installation instructions.
All wiring except power wires is low voltage.

All customer supplied wiring to be copper and must conform to NEC or CEC and local electrical codes. Wiring shown dotted is to be furnished and installed by the customer.

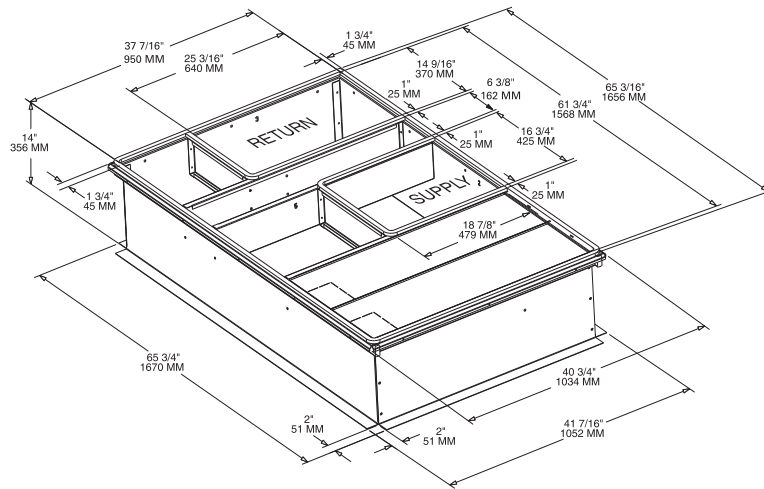
Dimensional Data

(3-5 Tons)

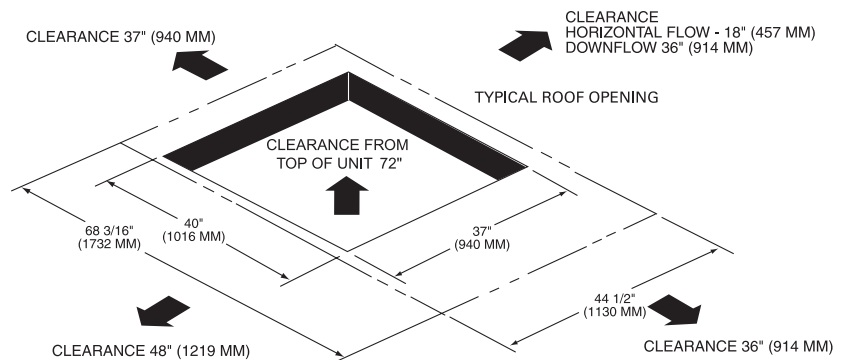
All dimensions are in inches/millimeters.



3-5 Tons — WSC036A, WSC048A, WSC060A



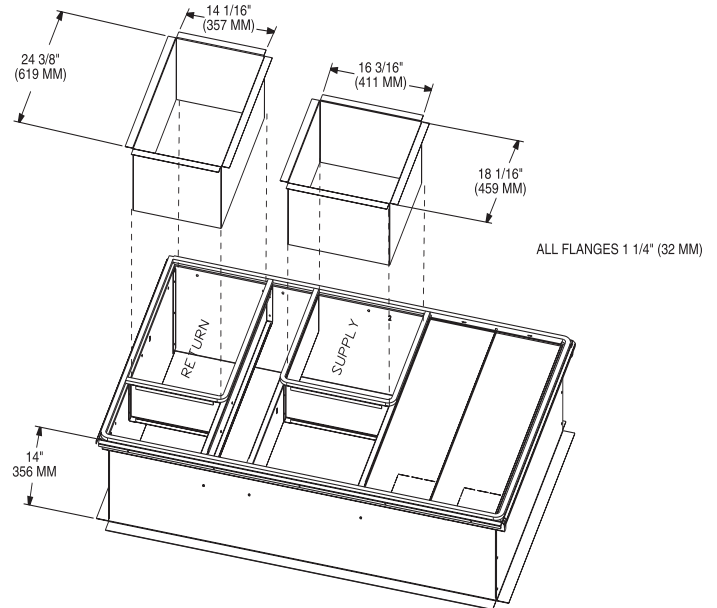
3-5 Tons Unit Clearance and Roof Opening



Dimensional Data

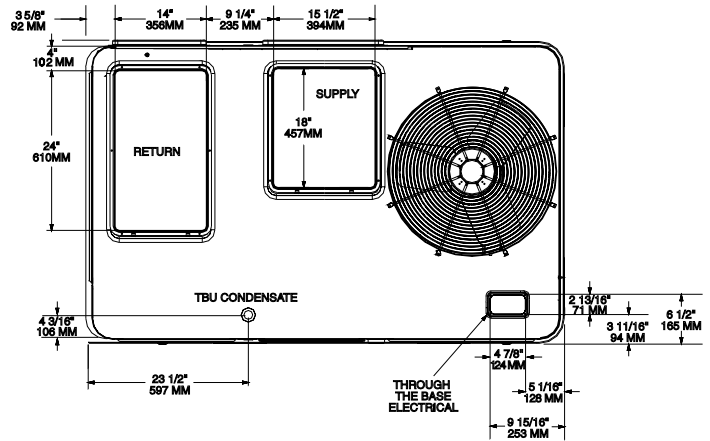
(3-5 Tons)

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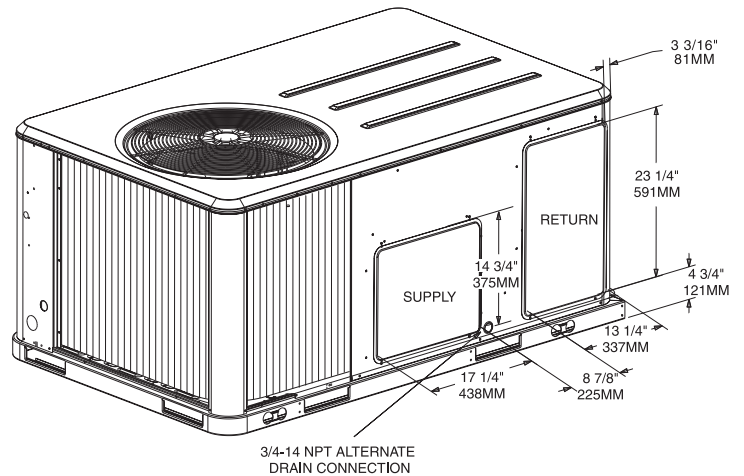


3-5 Tons Downflow Duct Connections – Field Fabricated

3-5 Tons Downflow Airflow Supply/Return; Through the Base Utilities



3-5 Tons Horizontal Airflow Supply/Return

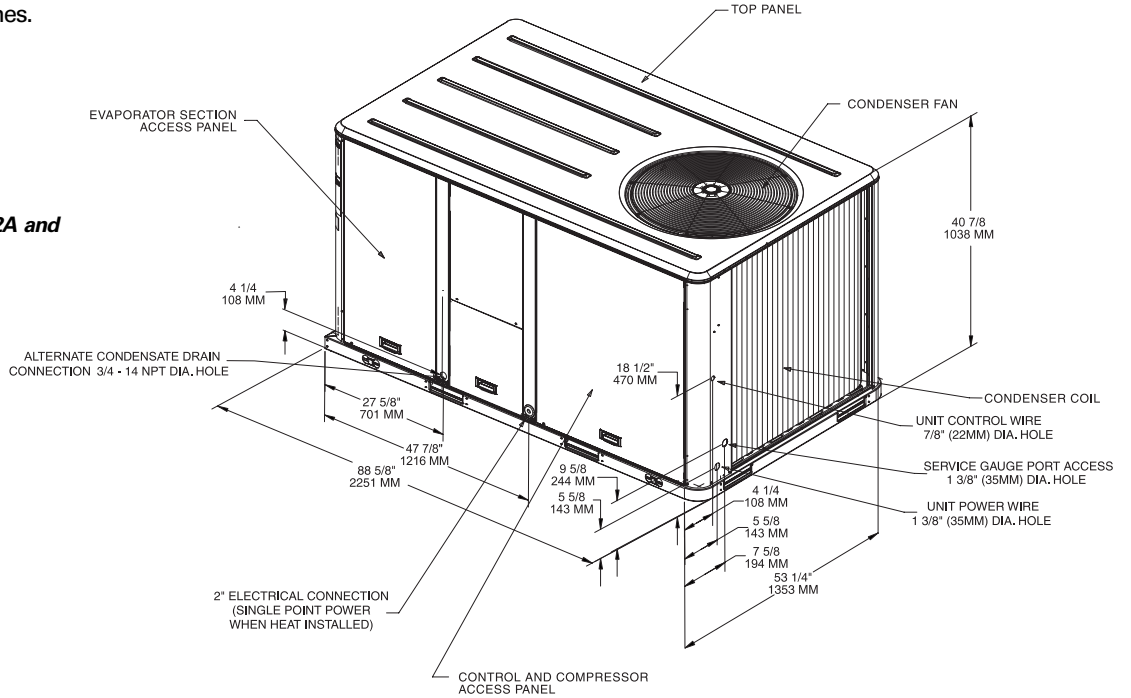


Dimensional Data

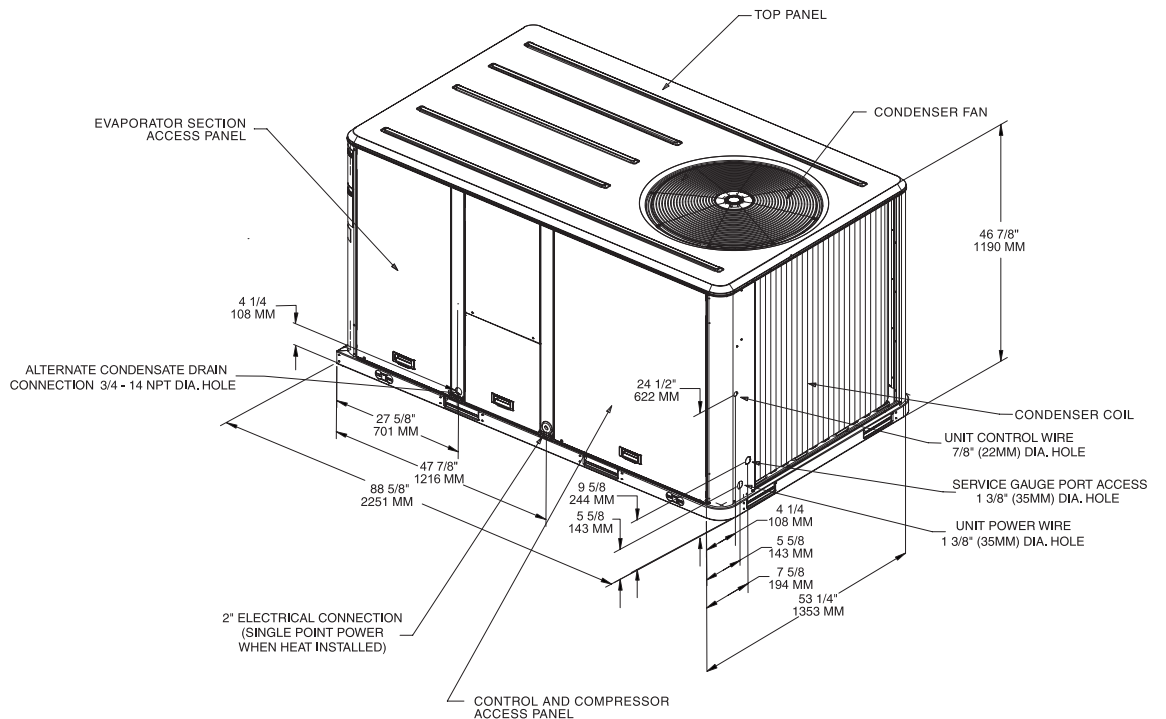
(6-10 Tons)

All dimensions are in inches.

6 and 7½ Tons — WSC072A and WSC090A



10 Tons — WSC120A

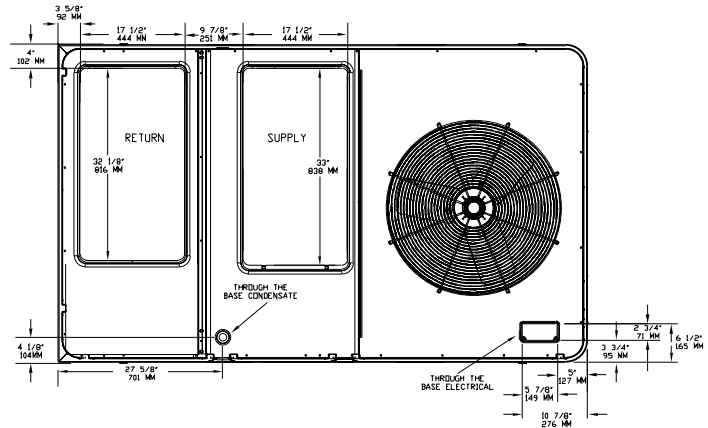




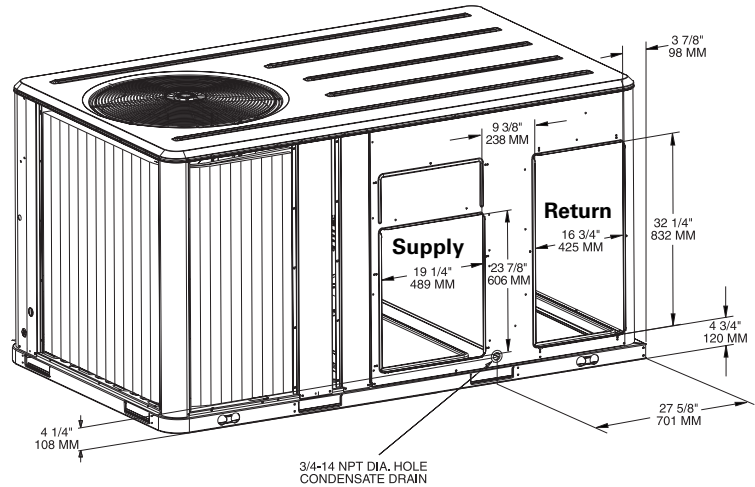
Dimensional Data (6-10 Tons)

All dimensions are in inches.

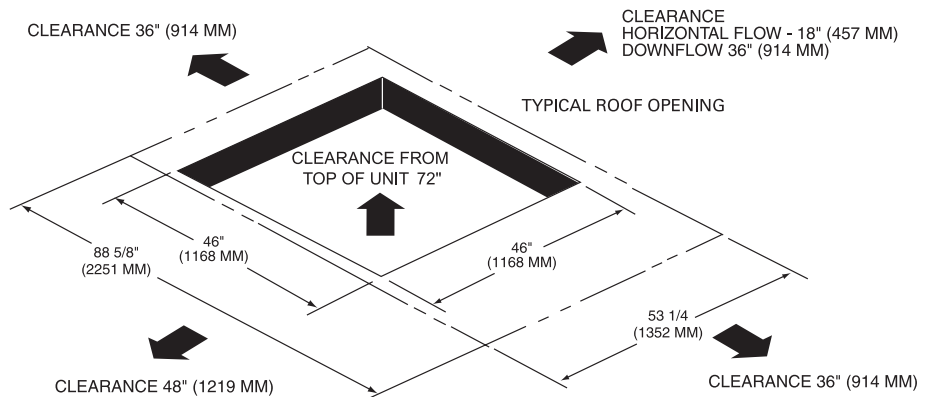
6-10 Tons – Downflow Airflow Supply and Return; Through the Base Utilities



6-10 Tons – Horizontal Airflow Supply and Return



6-10 Tons – Unit Clearance and Roof Opening

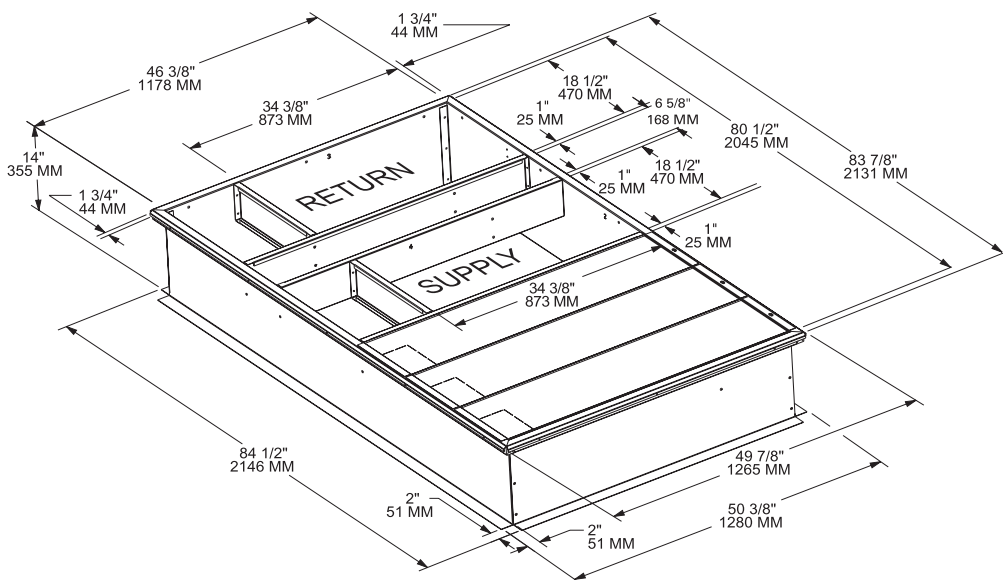


Dimensional Data

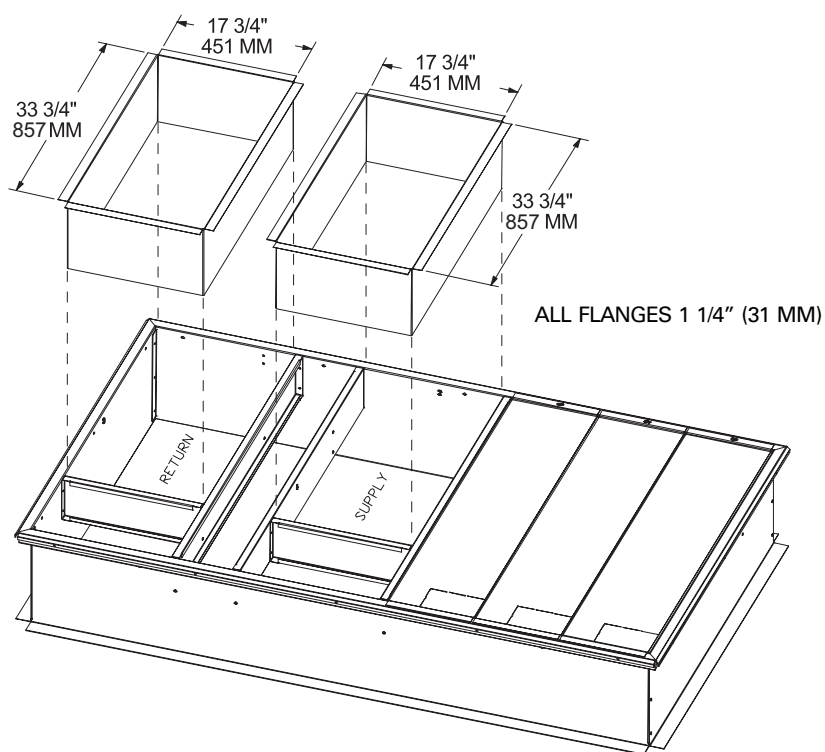
(6-10 Tons)

All dimensions are in inches.

6-10 Tons — Roof Curb



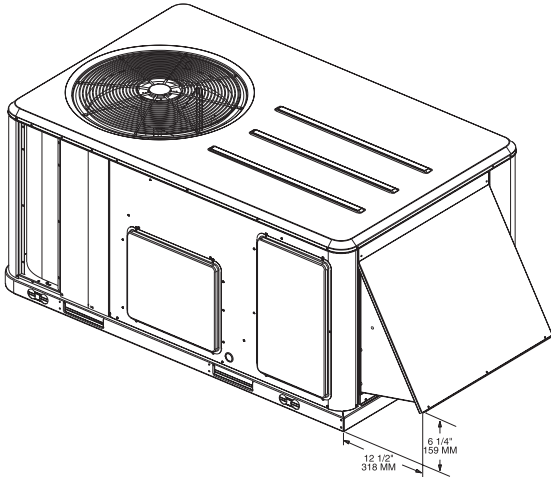
**6-10 Tons — Downflow Duct
Connections — Field Fabricated**



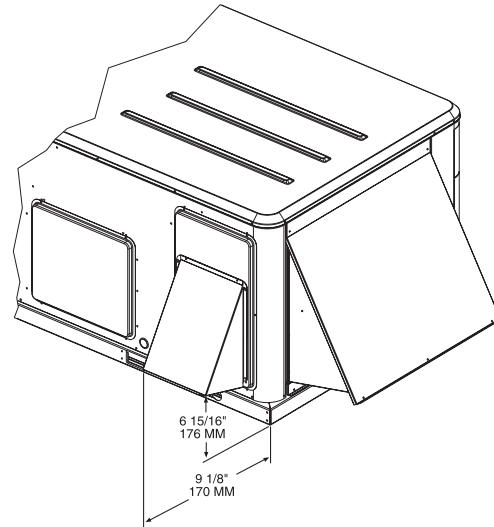
Dimensional Data

(3-5 Ton) Options/ Accessories

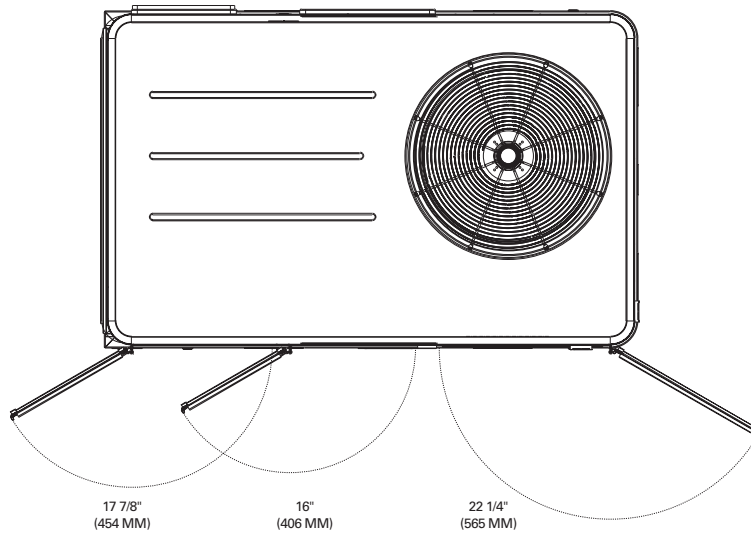
All dimensions are in inches.



3-5 Tons Economizer, Manual, or Motorized Fresh Air Damper



3-5 Tons Barometric Relief Damper



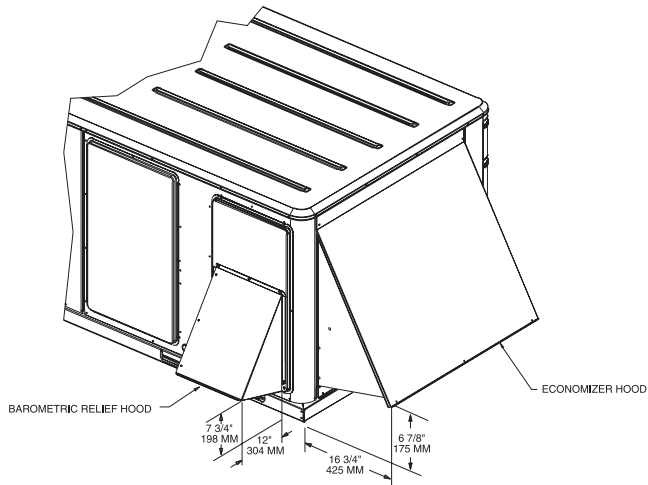
3-5 Tons Swing Diameter for Hinged Doors Option

See Page 46 for Through the Base Utilities Information

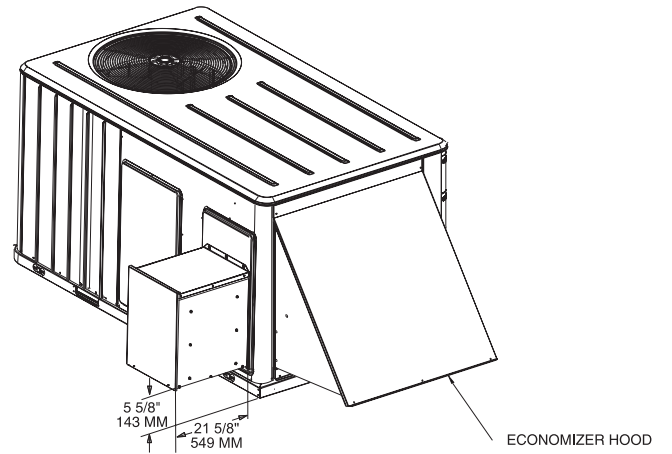
Dimensional Data

(6-10 Tons Options/ Accessories)

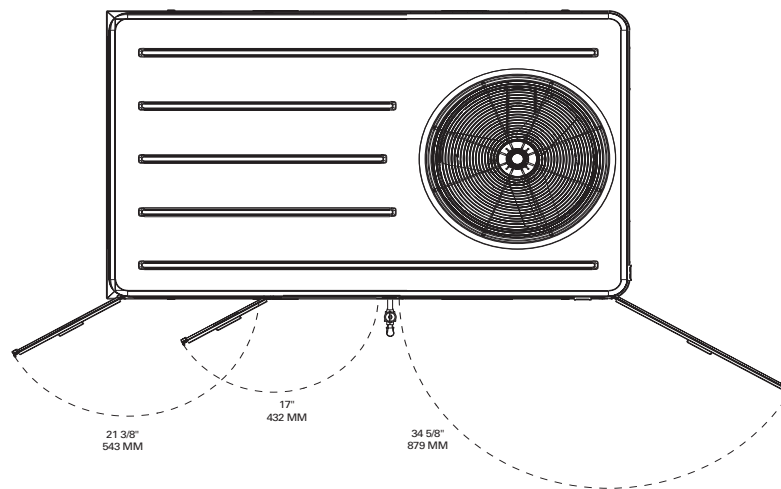
All dimensions are in inches.



6-10 Tons — Economizer and Barometric Relief Damper Hoods



6-10 Tons — Power Exhaust



6-10 Tons — Swing Diameter for Hinged Door(s) Option

See Page 48 for Through the Base Utilities Information

Weights

Table W- 1 — Maximum Unit Weights, Corner Weights (Lbs) And Center Of Gravity Dimensions (In.)

Tons	Unit Model No.	Maximum Weights (Lbs)		Corner Weights (Lbs) ¹				Center of Gravity (In.)	
		Shipping	Net	A	B	C	D	Length	Width
3	WSC036A	534	442	138	110	88	105	31	19
4	WSC048A	566	474	151	114	95	114	31	19
5	WSC060A	584	492	160	118	97	117	31	19
6	WSC072A	867	724	243	184	128	170	38	22
7½	WSC090A	937	794	272	200	137	185	38	22
10	WSC120A	1084	941	320	243	162	215	38	21

Note:

1. Corner weights are given for information only.

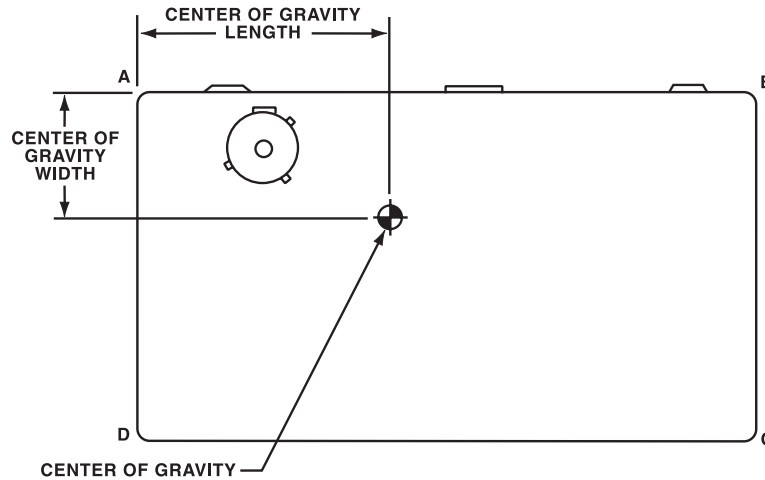


Table W-2 — Factory-installed Options Net Weights (Lbs)^{1,2}

Accessory	Net Weight	
	3-5Tons	6-10Tons
Economizer	26	36
Barometric Relief	7	10
Powered Exhaust	—	80
Motorized Outside Air Damper	20	30
Manual Outside Air Damper	16	26
Roof Curb	70	115
Oversized Motor	5	8
Belt Drive Motor	31	—
Smoke Detector, Return	7	7
Smoke Detector, Supply	5	5
Coil Guards	12	20
Hinged Doors	10	12
Powered Convenience Outlet	38	38
Through the Base Electrical	8	13
Electric Heaters	15	30
Unit Mounted Circuit Breaker	5	5
Unit Mounted Disconnect	5	5

Notes:

1. Weights for options not listed are < 5 lbs.
2. Net weight should be added to unit weight when ordering factory-installed accessories.

Mechanical Specifications

General

The units shall be convertible airflow. The operating range shall be between 115°F and 0°F in cooling as standard from the factory for units with microprocessor controls. Operating range for units with electromechanical controls shall be between 115°F and 40°F. 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 Central Cooling Air Conditioners. 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 1000 hours in a salt spray test in compliance with ASTM B117. Cabinet construction shall allow for all maintenance on one side of the unit. Service panels shall have lifting handles and be removed and reinstalled by removing only a single fastener while providing a water and air tight seal. All exposed vertical panels and top covers in the indoor air section shall be insulated with a cleanable foil-faced, fire-retardent permanent, odorless glass fiber material. The base of the unit shall be insulated with 1/2 inch, 1 pound density foil-faced, closed-cell material. All insulation edges shall be either captured or sealed. The unit's base pan shall have no penetrations within the perimeter of the curb other than the raised 1¹/₈ inch high downflow 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, with forklift capabilities on three sides of the unit.

Unit Top

The top cover shall be one piece construction or where seams exist, it shall be double-hemmed and gasket-sealed. The ribbed top adds extra strength and prevents water from pooling on unit top.

Filters

One inch, throwaway filters shall be standard on all 3-5 ton units. The filter rack can be converted to two inch capability. Two inch filters shall be factory supplied on all 6-10 ton units. Optional 2-inch pleated filters shall be available.

Compressors

All 3 ton standard units shall have direct-drive, hermetic, reciprocating type compressors. The reciprocating type compressors have a centrifugal oil pump providing positive lubrication to moving parts. Motor shall be suction gas-cooled and shall have a voltage utilization range of plus or minus 10 percent of unit nameplate voltage. Crankcase heater, internal temperature, and current-sensitive motor overloads shall be included for maximum protection. Compressors shall have internal spring isolation and sound muffling to minimize vibration transmission and noise. Low pressure switches shall be standard.

3 ton high efficiency and 4-10 ton standard and high efficiency 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 unit nameplate voltage. Internal overloads shall be provided with the scroll compressors. Crankcase heaters shall be included on 7¹/₂ ton standard efficiency units.

Refrigerant Circuits

Each refrigerant circuit offers a choice of independent fixed orifice expansion devices or thermal expansion valve. Service pressure ports, and refrigerant line filter driers are factory-installed as standard. An area shall be provided for replacement suction line driers.

Evaporator and Condenser Coils

Internally finned, 5/16" 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. The condenser coil shall have a patent pending 1+1+1 hybrid coil designed with slight gaps for ease of cleaning. A removeable, reversible, double-sloped condensate drain pan with provision for through the base condensate drain is standard.

Outdoor Fans

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

Indoor Fan

All 3-5 ton 3-phase units offer a choice of direct-drive, FC, centrifugal fans or belt driven, FC centrifugal fans with adjustable motor sheaves. 3-5 ton direct drive oversized motors shall be available for high static operations. All 6-10 ton units shall have belt drive motors with an adjustable idler-arm assembly for quick-adjustment to fan belts and motor sheaves. All motors shall be thermally protected. 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. Microprocessor controls provide 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 Microprocessor shall provide anti-short cycle timing and time delay between compressors to provide a higher level of machine protection.



Mechanical Specifications

Factory Installed Options

Black Epoxy 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.

High Pressure Cutout

This is offered for units that do not have High Pressure cutout as standard. All 3-phase units with scroll compressors include High Pressure Cutout as standard.

Hinged Access Doors

Sheet metal hinges are available on the Filter/Evaporator, Supply Fan/Heat, and the Compressor/Control Access Doors.

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.

Powered or Unpowered Convenience Outlet

This 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.

Supply and/or Return Air Smoke Detector

With this option, 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. This option is available for microprocessor controlled units.

Through the Base Electrical 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.

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. 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

This 3-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. Wiring will be provided from the switch to the unit high voltage terminal block. The switch will be UL/CSA agency recognized.

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

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. This option is available for microprocessor controlled units.

Differential Pressure Switches

These sensors allow individual fan failure and dirty filter indication for microprocessor controlled units. 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

This option provides true discharge air sensing in heating models. This sensor is a status indicator readable through Tracer™ or Tracker™. This option is available for microprocessor controlled units.

Economizer

This accessory shall be available with or without barometric relief. The assembly includes fully modulating 0-100 percent motor and dampers, minimum position setting, preset linkage, wiring harness with plug, spring return actuator and fixed dry bulb control. The barometric relief shall provide a pressure operated damper that shall be gravity closing and shall prohibit entrance of outside air during the equipment “off” cycle. Optional solid state or differential enthalpy control shall be available for either factory or field installation. The economizer arrives in the shipping position and shall be moved to the operating position by the installing contractor.

Electric Heaters

Electric heat modules shall be available for installation within 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.

Mechanical Specifications

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.

LonTalk® Communication Interface

This option shall be provided to allow the unit to communicate as a Tracer™ LCI-R device or directly with generic LonTalk Network Building Automation System Controls.

Oversized Motors

Direct drive 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 option shall be provided to interface ReliaTel™ controlled units with the Trane Integrated Comfort™ systems.

Field Installed Options

CO₂ Sensing

The CO₂ sensor shall have the ability to monitor space occupancy levels within the building by measuring the parts per million of CO₂ (Carbon Dioxide) in the air. As the CO₂ levels increase, the outside air damper modulates to meet the CO₂ 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 6 and 7½ ton units to operate with improved external static capabilities.

Manual Outside Air Damper

This rain hood and screen shall provide up to 50 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, available for 6-10 ton units, shall provide exhaust of return air, when using an economizer, to maintain better building pressurization.

Remote Potentiometer

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

Roof Curb

The roof curb shall be designed to mate with the unit's downflow supply and return 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.

Thermostat

Two stage heating and cooling operation or one stage heating and cooling shall be available in either manual or automatic changeover. Automatic programmable electronic with night set back shall also be available.

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. The ventilation override accessory shall be available as field installed.

Zone Sensor

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



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(distributor), local district office, or e-mail us at
comfort@trane.com

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