



Product Catalog

Foundation™ Packaged Rooftop Units

Cooling and Gas/Electric
15 to 25 Tons, 60 Hz





Introduction

Packaged Rooftop Air Conditioners



Trane has designed and developed the most complete line of Packaged Rooftop products with the new Foundation™ Light Commercial rooftop units available in the market today.

With Foundation, Trane continues to provide the highest standards in quality and reliability, comfort, performance, competitive price, and ease of installation.

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Features and Benefits

Foundation™ has features and benefits that make it first class in the light commercial rooftop market. Designed with input from field contractors and technicians, its convertible airflow and ease of installation are outstanding.

Features

Table 1. Foundation features – standard and optional

	Standard Features	Options ^(a)	
		Factory Installed	Field Installed
1-year Limited Parts Warranty	X		
5-year Limited Compressor Warranty	X		
5-year Limited Aluminized Heat Exchanger Warranty	X		
10-year Limited Stainless Steel Heat Exchanger Warranty		X	
5K SCCR (Short Circuit Current Rating)	X		
Anti-Short Cycle Timer (Standard with Symbio™)	X		
Barometric Relief Damper		X	X
Belt Drive Motors	X		
CO ₂ sensor - Demand Control Ventilation (DCV)			X
Colored Connectors and Wiring	X		
Complete Coat Microchannel Condenser Coil		X	
Compressor Discharge Temperature Limit (DTL)	X		
Condensate Overflow Switch		X	X
Convertible Airflow	X ^(b)		
Crankcase Heaters	X		
Disconnect Switch		X	X
Discharge Air Temperature Sensor	X		
Easy Access Low Voltage Connections	X		
Electric Heaters		X	X
Fault Detection and Diagnostics (FDD)	X		
Filters	X		
Frostat™	X		
Hail/Vandal Guards			X
High Altitude Kit			X
High Efficiency Filters (MERV 13)		X	X
High Pressure Control	X		
High Static Motor Kit		X	
Insulation - 1/2-inch, 1-lb Density	X		
IAQ Dual Sloped and Removable Drain Pans	X		
Leak Detection System	X		
Liquid Line Refrigerant Drier	X		
Low Ambient Cooling			X
Low Leak Economizer (Downflow)		X	X
Low Leak Economizer (Horizontal)			X
Low Pressure Control	X		
Low/High Static Drive Kit			X
Low Voltage Circuit Protection	X		
LP Conversion Kit			X
Manual Outside Air Damper		X	X
Motorized Outside Air Damper		X	X



Features and Benefits

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

	Standard Features	Options ^(a)	
		Factory Installed	Field Installed
Multi-Speed Indoor Fans	X		
Multi-Speed Oversized Motors		X	
Phase Loss/Reversal Monitor	X		
Power Exhaust			X
Quick Access Panels	X		
Reference or Comparative Enthalpy		X	X
Roof Curb			X
Scroll Compressors	X		
Single Point Power	X		
Single Side Service	X		
Standard Economizer (Downflow)		X	X
Standard Economizer (Horizontal)			X
Standardized Components	X		
Symbio Controls	X		
Thermal Expansion Valve	X		
Through-the-base electrical, gas connection provisions	X		
Variable Air Volume (SZVAV)		X	

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

^(b) Foundation™ units ship in the downflow configuration. A horizontal conversion kit, consisting of two downflow duct covers, is needed to convert the unit from a downflow to a horizontal airflow configuration.

Control Options

Note: Control option availability is dependent on unit configuration. For more information, see Trane® Select Assist™ or contact product support.

Table 2. Control options — standard and optional

	Standard Features	Options		
		Factory Installed	Factory or Field Installed	Field Installed
Dual Thermistor Remote Zone Sensor				X
Symbio™ Service and Installation App	X			
Symbio 700 Basic Module	X			
Thermostat				X
Zone Sensor				X

Accessories

Note: Accessory availability is dependent on unit configuration. Some accessories may require additional accessories/options for full functionality. For more information, see Foundation™ Packaged Rooftop Units Cooling and Gas/Electric 15 to 25 Tons Quick Reference Guide (RT-PRC127*-EN), the ordering system, or contact product support.

BAYKIT	Description
BAYBARO300*	Barometric Relief
BAYDMPR301*	Manual Fresh air damper
BAYDMPR302*	Motorized damper

BAYKIT	Description
BAYECON302*	Dry Bulb Downflow Economizer
BAYECON303*	Dry Bulb Horizontal Economizer
BAYECON358*	Dry Bulb Downflow Low Leak
BAYECON359*	Dry Bulb Horizontal Low Leak
BAYENTH305*	Reference Enthalpy Economizer Control
BAYENTH306*	Comparative Enthalpy Economizer Control
BAYHZCN301*	Horizontal economizer conversion kit
BAYPWRX303*	Power Exhaust 230V
BAYPWRX304*	Power Exhaust 460V
BAYPWRX305*	Power Exhaust 575V
BAYCO2K300*	CO ₂ (DCV) Wall Mounted Sensor
BAYCO2K301*	CO ₂ (DCV) Duct Mounted Sensor
BAYHTFE318*	18kW, 208-240V, Electrical heater
BAYHTFE418*	18kW, 480V, Electrical heater
BAYHTFEW18*	18kW, 600V, Electrical heater
BAYHTFE336*	36kW, 208-240V, Electrical heater
BAYHTFE354*	54kW, 208-240V, Electrical heater
BAYHTFF372*	72kW, 208-240V, Electrical heater
BAYHTFF436*	36kW, 480V, Electrical heater
BAYHTFF454*	54kW, 480V, Electrical heater
BAYHTFFW36*	36kW, 600V, Electrical heater
BAYHTFFW54*	54kW, 600V, Electrical heater
BAYHTFFW72*	72kW, 600V, Electrical heater
BAYHTFF336*	36kW, 208-240V, Electrical heater
BAYHTFH336*	36kW, 208-240V, Electrical heater
BAYHTFF354*	54kW, 208-240V, Electrical heater
BAYHTFH354*	54kW, 208-240V, Electrical heater
BAYHTFH372*	72kW, 208-240V, Electrical heater
BAYHTFG436*	36kW, 480V, Electrical heater
BAYHTFH436*	36kW, 480V, Electrical heater
BAYHTFG454*	54kW, 480V, Electrical heater
BAYHTFH454*	54kW, 480V, Electrical heater
BAYHTFH472*	72kW, 480V, Electrical heater
BAYHTFG472*	72kW, 480V, Electrical heater
BAYHTFHW36*	36kW, 600V, Electrical heater
BAYHTFHW54*	54kW, 600V, Electrical heater
BAYHTFHW72*	72kW, 600V, Electrical heater
BAYHTFF472*	72kW, 480V, Electrical heater
BAYHAKT300*	High Altitude conversion kit



Features and Benefits

BAYKIT	Description
BAYLPKT300*	LP conversion kit
BAYTBGF300*	Through the base gas connection
BAYTBUE301*	Through the base electric enclosure
BAYDSCF305*	Unit mounted disconnect switch, 125 AMP
BAYDSCF306*	Unit mounted disconnect switch, 150 AMP
BAYDSCF307*	Unit mounted disconnect switch, 125 AMP W / EH
BAYDSCF308*	Unit mounted disconnect switch, 150 AMP W / EH
BAYDSCF309*	Unit mounted disconnect switch, 250 AMP W/ EH
BAYCARR001*	Carrier conversion kit
BAYGARD300*	Condenser coil guard
BAYHZRT001*	Horizontal Duct Conversion Kit
BAYCURB027*	Roof curb
BAYCOSW301*	Drain pan overflow switch
BAYFILT301*	2" MERV 13 Filter
BAYHSDR300*	High Static drive option
BAYLOAM305*	Low ambient control
BAYLSDR300*	Low static drive option
BAYDFDB001*	Differential dry bulb economizer control
BAYSCCM001*	Customer connections module
BAYOPTN002*	Fresh air options module
BAYOPTN001*	Indoor options module

Key Benefits and Features

Barometric Relief

This product line offers an optional (factory or field installed) barometric relief damper in conjunction with Standard Economizer option. This accessory consists of gravity dampers which open with increased pressure. As building pressure increases, the pressure in the unit return air section also increases. This opens the dampers and relieves the conditioned space.

Notes:

- 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.

Cabinet Integrity

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

CO₂Sensor — Demand Control Ventilation (DCV)

Demand Control Ventilation (DCV) is a strategy that responds to the actual demand (need) for ventilation by regulating the rate at which the HVAC system brings outdoor air into the building. A carbon dioxide (CO₂) sensor measures the concentration (parts per million, ppm) of CO₂ in the air. As the CO₂ concentration changes, the outside air damper modulates to meet the current ventilation needs of the zone. The CO₂ sensor kit is available as a field installed accessory and wires directly to the Symbio™ 700 controller.

Coil Guards

Coil guards protect condenser coil during shipping as well as hail, vandals, wind, etc. Toolless design leads to easier maintenance. This feature is available as a field installed option.



Colored And Numbered Wiring

Save time and money tracing wires and diagnosing the unit.

Complete Coat™ Condenser Coil

The cathodic epoxy type electrodisposition coating is formulated for high edge build to a number of different types of heat exchangers. The coating is selected to provide excellent resistance and durability to corrosive effects of alkalis, acids, alcohols, petroleum, seawater, salt air, and corrosive environments. This feature is available from factory.

Compressors

Foundation™ contains the best compressor technology available to achieve the highest possible performance. Three stages (15 tons and 17.5 tons) and four stages (20 tons and 25 tons) from manifold compressors are outstanding for humidity control and part load cooling conditions.

Condensate Overflow Switch

A condensate overflow switch shuts the unit down when the condensate drain clogs. This option protects the unit from water overflowing from the drain pan and entering the base of the unit. This feature is available from factory or field.

Condensate Trap

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

Controls – Symbio 700

Enhanced Connectivity

Securely access, troubleshoot, and monitor equipment from anywhere via Trane Connect™

Serviceability

- Wireless mobile app interface (iPhone and Android) to simplify start-up/service
- On-board user interface
- Data trending
- Real-time, clear language diagnostics
- Historical alarm logs
- Backup and Restore functionality to reduce commissioning and service time

Flexibility



Features and Benefits

- Future-ready upgradable software, supporting changing codes and new sequences of operation
- Standard, consistent pre-engineered applications that meet industry standards
- Built-in Schedules (requires Tracer® TU)

Accessibility

Control box consists of a multilevel design with Symbio™ Controls located on hinged panels which provide protection from high voltage components for ease of servicing.

Convertible Units



Foundation™ units ship in the downflow configuration. A horizontal conversion kit, consisting of two downflow duct covers, is needed to convert the unit from a downflow to a horizontal airflow configuration. 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. Units also have the ability to fit Trane and other competitors roof curbs (Carrier). In a matter of minutes, you can go from the Trane configuration to the Carrier configuration by simply changing the return air opening plate. This design allows for easy field conversion and eliminates the need for costly adapter curbs.

Crankcase Heaters (15 to 25 Tons)

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

Discharge Line Thermostat

A bi-metal element discharge line thermostat is installed as a standard feature on the discharge line of each compressor. This feature provides extra protection to the compressors against high-discharge temperatures due to loss of charge or extremely high ambient conditions.

Disconnect Switch

This accessory can be used to stock standard product without a disconnect and has the ability to use through-the-base/disconnect offering. The standard disconnect is non-fused, three-pole, and case molded switch. This feature is available from factory or field.

Drain Pan

Every Foundation™ unit has a non-corrosive, sloped drain pan made of rigid PVC - standard on all units - that is removable for easy cleaning.

Easy Installation, Servicing, and Maintenance

Foundation™ offers outstanding standard features enhanced by a variety of factory and field installed options, multiple control options, rigorously tested proven designs, and superior product and technical support. Designed with direct input from service contractors, this product saves both time and money during servicing and maintenance.

Electric Heaters

Electric heat modules are available within the basic unit. If ordering through-the-base electrical option with an electrical heater, the heater must be factory installed.

Fault Detection and Diagnostics (FDD)

This FDD system meets the mandatory requirement of CA Title 24 of fully configurable diagnostics allowing fault history and reading fault codes at the unit via Symbio™ 700 board or app. This feature provides detection of the following faults: Air temperature sensor failure/fault and notification of acceptable economizer mode. The FDD system shall be certified by the Energy Commission as meeting the requirements.

Frostat™

This switch monitors coil temperature to prevent evaporator icing and protect the compressor. This is a standard feature.

Heat Exchanger

The cabinet features a tubular heat exchanger in low, medium and high heat capacities – all available for vertical and horizontal discharge directions. The heat exchanger is fabricated using aluminized steel burners and corrosion-resistant, aluminized steel tubes as standard on all models. As part of the heat exchanger assembly, an induced draft blower is used to pull the gas mixture through the burner tubes. A direct spark ignition system, which doubles as a safety device to prove the flame, is used to ignite the gas mixture.

Heating Operation

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

High Altitude Kit

This feature is available from field. While recommended for units applied above 2,000 feet, domestic contractors should consult with local authority on best practice. High altitude kits contain gas orifices that derate the gas input rate (Btuh/r) by 10%.

High Efficiency Filtration

Foundation™ units offer high efficiency filtration option — MERV 13 filter. It provides additional filtration beyond the capabilities of typical 2–inches throwaway filters. This feature is available as standard or field offering.

Insulation

All panels in the evaporator section of the unit have foil-faced, glass fiber insulation. All base panels have foil-faced, glass fiber insulation. All edges are either captured or sealed to confirm no insulation fibers get into the airstream.

Leak Detection System

The Leak Detection System (LDS) consists of one or more refrigerant detection sensors and is required in ducted HVAC systems that have more than 3.91 lbs of A2L refrigerant charge, per safety standard UL 60335-2-40. For any units with more than 3.91 lbs of charge in a circuit, an LDS will be factory-installed. Having the leak detector installed in the factory by the manufacturer on applicable units reduces the risk of improper installation in the field as well as bypassing the added cost in the field for installation, leading to peace of mind that the right solution has been applied to your unit.

Low Ambient Cooling

All Foundation™ units have cooling capabilities down to 50°F as standard.



Features and Benefits

Low Leak Economizer

This economizer meets the damper leakage requirements for ASHRAE 90.1, IECC, and California Title 24 standards (3 cfm/ft²@1" wg for outside air dampers and 4 cfm/ft² for return dampers).

Included as required per California Title 24:

- Fault Detection and Diagnostics System — provides detection of economizer faults. Barometric relief must be field installed with this option.
- Occupant Controlled Smart Thermostat (OCST) Connection — user-provided thermostat allows remote monitoring of economizer faults and provides the capability to receive load-shedding commands from the utility company.

The economizers come with four control options, dry bulb, reference enthalpy, comparative enthalpy, or differential dry bulb.

Note: Downflow low leak economizer is available as a factory or field installed option. Horizontal low leak economizer option is only available as a field installed option.

LP Conversion Kit

This kit is provided for field conversion of gas heat units from natural gas to propane.

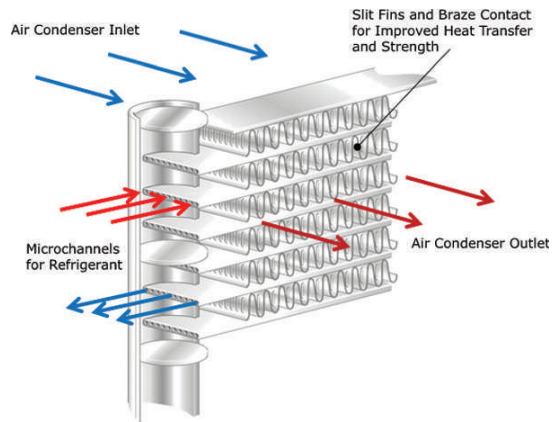
Manual Outside Air Damper

A 0 to 25 percent manual air damper is available as factory or field option.

Microchannel Coil

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

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



Motors

All indoor fan motors are belt drive as standard.

Motorized Outside Air Damper

A 0 to 50 percent motorized outside air damper is available as factory or field option.

Multi-Speed Indoor Fan System

This system incorporates a multi-speed fan control to change the speed of the fan to 66% of full airflow based on compressor stages.

Outstanding Flexibility

With its ability to adapt to specific Carrier WeatherMaker™ models without costly adapter curbs, foundation™ units prove to be cost effective and easy to install.

Phase Monitor

Foundation™ features a three-phase line monitor module that protects against phase loss, phase reversal and phase unbalance. It is intended to protect compressors from reverse rotation. It has an operating input voltage range of 180–600 Vac, and LED indicators for ON and FAULT. There are no field adjustments and the module will automatically reset from a fault condition.

Power Exhaust

Power exhaust option is a field feature option available on downflow units. It discharges return air when using a downflow economizer and proves as an excellent option for relieving building overpressure problems.

Pressure Cutouts

Low and high pressure cutouts are standard on all Foundation™ models.

Quick-Access Panels

Remove three screws (four or fewer) for access to the standardized internal components and wiring.

Quick-Adjust Fan Motor Mounting Plate

With the quick-adjust slider plate, the belt and sheaves can be quickly adjusted without moving the mounted fan motor. This results in reduced time spent on routine maintenance.

Rigorous Testing

All of the Foundation™ designs were rigorously rain tested at the factory to confirm water integrity.

Units incorporate either a one-piece top or the Trane-Tite-Top (T3) each part which overlaps in a way that water cannot leak into the unit. These overlapped edges are gasketed and sealed to confirm superior water integrity.

Actual shipping tests were performed to determine packaging requirements. Units were test shipped around the country to determine the best packaging design. Factory shake and drop tests were used as part of the package design process to 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.

For the microchannel coils, the supplier performs a leak check at 450 psig.

The completely assembled refrigerant system is leak tested at a minimum of 225 psig with a refrigerant and nitrogen mixture.

All parts are inspected during 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 requirements.

Roof Curbs

One roof curb for the entire Foundation™ line simplifies curb selection — available for downflow units.

Standardized Components

Components are placed in the same location on all Foundation™ units. Familiarize yourself with one Foundation and you are familiar with every Foundation. Due to standardized components throughout the Foundation line, contractors/owners can stock fewer parts.

Single Point Power

A single electrical connection powers the unit and all on-board options.



Features and Benefits

Single Side Service

Single side service is standard on all units.

Single Zone VAV (SZVAV)

SZVAV is fully integrated into the control system. It provides the simplest and fastest commissioning in the industry through proven factory-installed, wired, and tested system controllers. All control modules, logic boards and sensors are factory installed and tested to confirm the highest quality and most reliable system available. This means no special programming of algorithms, or hunting at the jobsite for field installed sensors, boards, etc. SZVAV is a quick and simple solution for many applications and is available from your most trusted rooftop VAV system solution provider -Trane.

Building system modeling in energy simulation software such as TRACE is recommended to evaluate performance improvements for your application.

Stainless Steel Heat Exchanger

The optional stainless steel heat exchanger (from factory) is constructed of 409 stainless steel tubes and 439 stainless steel burners.

It is resistant to corrosion and oxidation and easy to clean.

The high strength to weight ratio allows for high ventilation rates with gas units and comes standard with a modulating gas heat option. With this option, a 10-year stainless steel heat exchanger warranty is standard.

Standard Economizer

Standard Economizers are equipped with either dry bulb, reference, or comparative enthalpy sensing. As the outdoor temperature and/or humidity decreases, these economizers provide free cooling.

Factory-installed economizers save time, energy, and confirm proper installation.

Downflow configuration is factory and field installed and Horizontal configuration is only field installed.

Note: *Factory-installed economizers require some field set-up.*

Static Drive Accessories

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

Third Side Fork Access

This factory option adds fork openings on the condenser end of the unit for easy maneuvering through narrow openings.

Through-the-Base Gas Piping (Gas Heat Units Only)

This option has all necessary piping including black steel, manual gas shut-off valve, elbows, and union. This assembly requires field labor to install.

Through-the-Base Electrical Access

An electrical service entrance is provided for allowing electrical access for both control and main power connections inside the curb and through-the-base of the unit. This option allows for field installation of liquid-tight conduit and an external field installed disconnect switch.

Factory provided through the base openings simplify wiring and piping.

As these utility openings frequently minimize the number of roof penetrations, the integrity of roofing materials is enhanced.

Unit Pitch

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

Unmatched Support

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

- Application
- Computer Programs
- Product
- Service
- Special Applications
- Specifications
- Training



Application Considerations

A2L Application Considerations

This product is listed to UL standard 60335-2-40, Household and Similar Electrical Appliances – Safety – Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers, which defines safe design and use strategies for equipment using A2L refrigerants. This standard limits the refrigerant concentration in a space in the event of a refrigerant leak. To meet the requirements, the UL standard defines minimum room area, refrigerant charge limit, minimum circulation airflow and/or ventilation airflow requirements, and limits the use of ignition sources in spaces. The standard may require a unit refrigerant leak detection system.

For equipment with R-454B and charge amounts less than or equal to 3.91 lbs per circuit, this UL standard does not prescribe a room area limit and does not require a refrigerant leak detection system or any circulation airflow or ventilation airflow mitigation strategies. However, ignition sources in ductwork must be evaluated.

Depending on the application, a specific requirement of ANSI/ASHRAE Standard 15, Safety Standard for Refrigeration Systems, could be more stringent than UL 60335-2-40 requirements. See *Refrigeration Systems and Machinery Rooms Application Considerations for Compliance with ASHRAE® Standard 15-2022 Application Engineering Manual (APP-APM001*-EN)* for more information.

Minimum Room Area Limits (Refrigerant charge greater than 3.91 lb per circuit)

Equipment with R-454B charge amounts greater than 3.91 lb per circuit may require additional circulation or ventilation airflow mitigation strategies. In this case, two minimum room area (A_{min}) thresholds:

- The first threshold defines when equipment serving a single room is required to provide circulation airflow, either continuous or activated by a leak detection system. A ducted system requires circulation airflow unless the smallest room it serves is larger than the adjusted A_{min} threshold. This product contains a leak detection system if a circuit charge is greater than 3.91 lbs. As a result, no further leak detection system evaluation is required.
- The second threshold defines when additional ventilation airflow is required. If the room area, A or TA , is below the adjusted A_{min} or TA_{min} threshold, additional ventilation is required to remove refrigerant in the event of a leak. Refer to UL 60335-2-40 Clause GG.8 and ANSI/ASHRAE Standard 15 Section 7 for natural and mechanical ventilation requirements. For minimum room area, see equipment nameplate or unit Installation, Operation, and Maintenance (IOM) manual.

Minimum Room Area (A_{min}) Adjustments

- **Altitude:** The A_{min} threshold changes with altitude. Multiple the altitude adjustment factor in the following table by A_{min} shown on the unit nameplate or in the Installation, Operation, and Maintenance (IOM) manual.

Table 3. Altitude adjustment factor

Altitude (ft)	Sea Level to 2000	2001 to 4000	4001 to 6000	6001 to 8000	8001 to 10000	10001 to 12000	12001 to 14000	14001 to 15000	Over 15000
A_{min} Adjustment	1	1.05	1.11	1.17	1.24	1.32	1.41	1.51	1.57

- **Height :** A_{min} can be adjusted if the unit is installed in a room at a height higher than the minimum height shown on the unit. Multiply A_{min} by the ratio of the unit minimum release height (in meters) / actual release height (in meters).
- **Institutional Occupancies:** For institutional occupancies, ASHRAE Standard 15 applies an additional adjustment factor, FOCC, to the amount of charge allowed in a space. To calculate the adjusted A_{min} for institutional occupancies, divide the A_{min} on the nameplate by 0.5.

Determining Room Area (A or TA)

The room area (A) is the room area enclosed by the projection to the floor of the walls, partitions, and doors of the space that the equipment serves. For ducted systems, total room area (TA) of all rooms connected by ducts, may be used instead of A.

Rooms connected by drop ceilings only are not considered a single room.

Rooms on the same floor of the building, and connected by an open passageway, can be considered part of the same room if the passageway is a permanent opening, extends to the floor and is intended for people to walk through.

Adjacent rooms on the same floor of the building and connected by permanent openings in the walls and/or doors between rooms (including gaps between the wall and the floor), can be considered part of the same room if the openings meet the following criteria.

- The opening is permanent and cannot be closed.
- Openings extending to the floor, such as door gaps, need to be at least 20 mm above the floor covering surface.
- Natural ventilations opening areas must meet the requirements of ANSI/ASHRAE Standard 15-2022, Section 7.2.3.2.

Rooms that are connected by a mechanical ventilation system can be considered a single room area if the mechanical ventilation system meets the requirements of ANSI/ASHRAE Standard 15-2022, Section 7.6.4.

Leak Detection System (Refrigerant charge greater than 3.91 lb per circuit)

The leak detection system consists of one or more refrigerant detection sensors. When the system detects a leak, the following mitigation actions will be initiated until refrigerant has not been detected for at least 5 minutes:

- Energize the supply fan(s) to deliver a required minimum amount of circulation airflow.
- Disable compressor operation.
- Provide an output signal to fully open all zoning dampers, such as VAV boxes.
- Provide an output to energize additional mechanical ventilation (if needed).
- Units without airflow proving will disable electric heat sources.

Building fire and smoke systems may override this function.

If the refrigerant sensor has a fault, is at the end of its life, or is disconnected, the unit will initiate the mitigation actions. Mitigation actions may be verified by disconnecting the sensor.

The refrigerant sensors do not need service. Use only manufacturer-approved sensors when replacement is required.



Selection Procedure

Cooling Capacity

Note: Cooling capacity procedure is the same for cooling/electric (E) and gas (G).

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

Factors used in unit selection:

- Total Cooling Load: 180 MBh
- Sensible Cooling Load: 126 MBh
- Airflow: 6000 cfm
- Electrical Characteristics: 460/60/3
- Summer Design Conditions: Entering Evaporator Coil: 80°F DB/67°F WB
- Outdoor Ambient: 95°F
- External Static Pressure: 0.44 in. wg
- Rooftop – downflow configuration
- Efficiency: 14 IEER
- Accessories: Economizer, Roof Curb, Electric Heat

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

$$180 \text{ MBh} / 12 \text{ MBh} = 15.0 \text{ tons}$$

3. [Table 7, p. 24](#) shows that a EDK180A4 has a gross cooling capacity of 187.8 MBh and 143.3 MBh sensible capacity at 6000 cfm and 95 DB outdoor ambient with 80 DB, 67 WB air entering the evaporator.

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.

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

External Static Duct System	0.44 wg
Standard Filter 2 in. from Table 33, p. 46	0.04 wg
Economizer (100% Return Air) from Table 33, p. 46	0.04 wg
Electric Heater Size 36 kW from Table 33, p. 46	0.02 wg
Total Static Pressure	0.54 wg

Note: Reference heating capacity section on this page for determination of heater size. No additional static add for gas/heat exchanger.

Note: The Evaporator Fan Performance [Table 14, p. 31](#) has already accounted for the pressure drop for standard filters and wet coils (see note below in [Table 14, p. 31](#)). Therefore, the actual total static pressure is 0.54 - 0.04 (from [Table 33, p. 46](#)) = 0.50 wg.

With 6000 cfm and 0.50 wg. [Table 14, p. 31](#) shows 1.37 bhp for this unit. Note below the table is the formula to calculate fan motor heat.

$$3.15 \times \text{bhp} = \text{MBh}$$

$$3.15 \times 1.37 = 4.32 \text{ MBh}$$

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

$$\text{Net Total Cooling Capacity} = 187.8 \text{ MBh} - 4.32 = 183.48 \text{ MBh.}$$

$$\text{Net Sensible Cooling Capacity} = 143.3 \text{ MBh} - 4.32 = 138.98 \text{ MBh.}$$

5. Compare your resulting capacities to the building load. If the performance will not meet the required load of the building's total or sensible cooling load, try a selection at the next higher size unit.

Heating Capacity

Note: Heating capacity procedures DIFFER for cooling/electric (E) and gas (G).

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

460 volt/3 phase Power Supply

Total heating load of 115.0 MBh

6000 cfm

The electric heat accessory capacities are listed in [Table 35, p. 47](#). From the table, a 36 kW heater will deliver 122.94 MBh at 480 volts. In order to determine capacity at 460 volts, the heater voltage correction factor from [Table 36, p. 48](#) must be used. Therefore, 122.94 MBh x 0.94 (voltage correction factor) = 115.6 MBh.

Gas/electric: Fuel natural gas total heating load of 185 MBh. [Table 34, p. 47](#) shows 240 MBh, 320 MBh, and 350 MBh input models. The output capacities of these furnaces are 194 MBh, 259 MBh, and 284 MBh respectively. The low heat model with 194 MBh output best matches the building requirements.

Air Delivery Selection

Note: Air Delivery procedures is the same for cooling/electric (E) and gas (G) units.

External static pressure drop through the air distribution system has been calculated to be 0.50 inches of water. From [Table 33, p. 46](#) static pressure drop through the economizer is 0.04 and the 36 kW heater is 0.02 inches of water (0.44 + 0.04 + 0.02). Enter [Table 7, p. 24](#) for a EDK180A4 at 6000 cfm and 0.50 static pressure. The standard motor with the low static drive accessory at 622 rpm will give the desired airflow at a rated bhp of 1.37.



Model Number Description

Digit 1 — Unit Function

E = DX Cooling
G = DX Cooling, Gas Heat

Digit 2 — Cooling Efficiency

D = Standard Efficiency

Digit 3 — Refrigerant

K = R-454B

Digit 4, 5, 6 — Nominal Gross Cooling Capacity (MBh)

180 = 15 Tons
210 = 17.5 Tons
240 = 20 Tons
300 = 25 Tons

Digit 7 — Major Design Sequence

A = Rev A

Digit 8 — Voltage Selection

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

Digit 9 — Unit Controls

S = Symbio™ 700

Digit 10 — Heating Capacity

Note: Applicable to Digit 1 = E models only

0 = No Heat
G = 18 kW Electric Heat
N = 36 kW Electric Heat
P = 54 kW Electric Heat
R = 72 kW Electric Heat

Note: Applicable to Digit 1 = G models only

H = Gas Heat - High
L = Gas Heat - Low
M = Gas Heat - Medium
X = Gas Heat - SS Ht Ex - Low
Y = Gas Heat - SS Ht Ex - Medium
Z = Gas Heat - SS Ht Ex - High

Digit 11— Minor Design Sequence

A = Rev A

Digit 12,13 — Service Sequence

** = Factory Assigned

Digit 14 — Fresh Air Selection^{3, 4}

0 = No Fresh Air
A = Manual Outside Air Damper 0-25%
B = Motorized Outside Air Damper 0-50%
C = Economizer, Dry Bulb 0-100% without Barometric Relief
D = Economizer, Dry Bulb 0-100% with Barometric Relief¹
E = Economizer, Reference Enthalpy 0-100% without Barometric Relief
F = Economizer, Reference Enthalpy 0-100% with Barometric Relief¹
G = Economizer, Comparative Enthalpy 0-100% without Barometric Relief
H = Economizer, Comparative Enthalpy 0-100% with Barometric Relief¹
J = Downflow Low Leak Economizer, Dry Bulb w/o Barometric Relief
L = Downflow Low Leak Economizer, Reference Enthalpy w/o Barometric Relief
N = Downflow Low Leak Economizer, Comparative Enthalpy w/o Barometric Relief
S = Downflow Low Leak Economizer, Differential Dry Bulb w/o Barometric Relief

Digit 15 — Supply Fan/Drive Type/Motor

7 = Multi-Speed Standard Motor
9 = Multi-Speed Oversized Motor
A = Single Zone Variable Air Volume with Standard Motor
B = Single Zone Variable Air Volume with Oversized/High Static Motor

Digit 16 — Access/Filters

0 = Standard Fork Access/Standard Filters
F = Third Side Condenser Fork Access (15-25 Ton)/Standard Filters
D = Standard Fork Access/2 inch MERV 13 Filters
G = Third Side Condenser Fork Access (15-25 Ton)/2 inch MERV 13 Filters

Digit 17 — Condenser Coil Protection

0 = Standard Coil
4 = CompleteCoat™ Condenser Coil

Digit 18 — Through-the-Base Provisions

Note: Applicable to Digit 1=E models only

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

Note: Applicable to Digit 1=G models only

0 = No Through-the-Base Provisions
A = Through-the-Base Electric
B = Through-the-Base¹
C = Through-the-Base Electric/Gas

Digit 19 — Disconnect Switch

0 = No Disconnect
1 = Unit Mounted Non-Fused Disconnect Switch²

Digit 20 — 24

Not Used

Digit 25 — System Monitoring Controls

0 = No Monitoring Controls
A = Condensate Drain Pan Overflow Switch

Digit 26

Not Used

Model Number Notes

Notes:

1. Some field set up required.
2. Must be ordered with Through the- Base Electrical option.
3. All Factory Installed Options are Built-to-Order. Check order services for estimated production cycle.
4. Factory installed economizers only available in downflow configuration.



General Data

Table 4. General data — 15 to 17.5 tons

	15 Ton		17.5 Ton	
	EDK180	GDK180	EDK210	GDK210
Cooling Performance^(a)				
Gross Cooling Capacity	188,000	188,000	212,000	212,000
EER (Downflow/Horizontal)	11	10.8	11	10.8
Nominal Airflow CFM / AHRI Rated CFM	6000	6000	5600	5600
AHRI Net Cooling Capacity	182,000	182,000	206,000	206,000
Integrated Energy Efficiency Ratio (IEER) (Multi Speed Fan)	14.2	14	14.2	14
Percent Capacity @ part load (Stage 1-Stage 4)	33/67/100/NA	33/67/100/NA	33/67/100/NA	33/67/100/NA
System Power (kW)	16.54	16.54	18.73	18.73
Compressor				
Number/Type	2 / Scrolls	2 / Scrolls	2 / Scrolls	2 / Scrolls
Sound				
Outdoor Sound Rating (BELS)	9.5	9.5	9.5	9.5
Outdoor Coil				
Type	Microchannel	Microchannel	Microchannel	Microchannel
Coil Width (in.)	0.71	0.71	0.71	0.71
Face Area (sq. ft.)	33.90	33.90	33.90	33.90
Rows/FPI	1 / 23	1 / 23	1 / 23	1 / 23
Indoor Coil				
Type	Microchannel	Microchannel	Microchannel	Microchannel
Tube Size (in.) ID	1	1	1	1
Face Area (sq. ft.)	23.93	23.93	23.93	23.93
Rows/FPI	2/18	2/18	2/18	2/18
Refrigerant Control	TXV	TXV	TXV	TXV
Drain Connection Number/Size (in.)	1 / 1.00 Internal Joint Connection	1 / 1.00 Internal Joint Connection	1 / 1.00 Internal Joint Connection	1 / 1.00 Internal Joint Connection
Outdoor Fan				
Type	Propeller	Propeller	Propeller	Propeller
Number Used/Diameter (in.)	2 / 26	2 / 26	2 / 26	2 / 26
Drive Type/No. Speeds	Direct / 1	Direct / 1	Direct / 1	Direct / 1
cfm	11520	11520	14660	14660
Number Motors/hp	2 / 0.5	2 / 0.5	2 / 1.0	2 / 1.0
Motor rpm	1125	1125	1125	1125
Indoor Fan				
Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
Number Used/Diameter (in.)	2 / 15x15	2 / 15x15	2 / 15x15	2 / 15x15
Drive Type/No. Speeds	Belt / 1	Belt / 1	Belt / 1	Belt / 1
Number Motors	1	1	1	1
Motor hp (Standard/Oversized)	3.0 / 5.0	3.0 / 5.0	5.0 / 7.5	5.0 / 7.5
Motor rpm (Standard/Oversized)	1750 / 3450	1750 / 3450	3450 / 3450	3450 / 3450
Motor Frame Size (Standard/Oversized)	145T / 145T	145T / 145T	145T / 184T	145T / 184T
Filters				
Type Furnished ^(b)	Throwaway	Throwaway	Throwaway	Throwaway
Number Size Recommended	(8) 20x24x2	(8) 20x24x2	(8) 20x24x2	(8) 20x24x2
Refrigerant Charge (Pounds of R-454B)^(c)				
Circuit 1	12.6	12.6	13.5	13.5

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

^(b) Optional field-installed and factory MERV 13 filters available.

^(c) Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.



General Data

Table 5. General data — 20 to 25 tons

	20 Ton		25 Ton	
	EDK240	GDK240	EDK300	GDK300
Cooling Performance^(a)				
Gross Cooling Capacity	250,000	250,000	280,000	280,000
EER (Downflow/Horizontal)	10	9.8	10	9.8
Nominal Airflow CFM / AHRI Rated CFM	8000	8000	9000	9000
AHRI Net Cooling Capacity	240,000	240,000	266,000	266,000
Integrated Energy Efficiency Ratio (IEER) (Multi Speed Fan)	13.2	13	13.2	13
Percent Capacity @ part load (Stage 1-Stage 4)	24/36/64/100	24/36/64/100	25/37/63/100	25/37/63/100
System Power (kW)	24.00	24.00	26.60	27.14
Compressor				
Number/Type	2 / Scrolls	2 / Scrolls	2 / Scrolls	2 / Scrolls
Sound				
Outdoor Sound Rating (BELS)	9.5	9.5	9.5	9.5
Outdoor Coil				
Type	Microchannel	Microchannel	Microchannel	Microchannel
Coil Width (in.)	1.00	1.00	1.00	1.00
Face Area (sq. ft.)	33.90	33.90	33.90	33.90
Rows/FPI	1 / 21	1 / 21	1 / 21	1 / 21
Indoor Coil				
Type	Microchannel	Microchannel	Microchannel	Microchannel
Tube Size (in.) ID	1	1	1	1
Face Area (sq. ft.)	23.93	23.93	23.93	23.93
Rows/FPI	2/18	2/18	2/18	2/18
Refrigerant Control	TXV	TXV	TXV	TXV
Drain Connection Number/Size (in.)	1 / 1.00 Internal Joint Connection	1 / 1.00 Internal Joint Connection	1 / 1.00 Internal Joint Connection	1 / 1.00 Internal Joint Connection
Outdoor Fan				
Type	Propeller	Propeller	Propeller	Propeller
Number Used/Diameter (in.)	2 / 26	2 / 26	2 / 28	2 / 28
Drive Type/No. Speeds	Direct / 1	Direct / 1	Direct / 1	Direct / 1
cfm	14220	14220	16600	16600
Number Motors/hp	2 / 1.0	2 / 1.0	2 / 1.0	2 / 1.0
Motor rpm	1125	1125	1125	1125
Indoor Fan				
Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
Number Used/Diameter (in.)	2 / 15x15	2 / 15x15	2 / 15x15	2 / 15x15
Drive Type/No. Speeds	Belt / 1	Belt / 1	Belt / 1	Belt / 1
Number Motors	1	1	1	1
Motor hp (Standard/Oversized)	5.0 / 7.5	5.0 / 7.5	7.5 / 10.0	7.5 / 10.0
Motor rpm (Standard/Oversized)	3450 / 3450	3450 / 3450	3450 / 1750	3450 / 1750
Motor Frame Size (Standard/Oversized)	145T / 184T	145T / 184T	184T / 215T	184T / 215T
Filters				
Type Furnished ^(b)	Throwaway	Throwaway	Throwaway	Throwaway
Number Size Recommended	(8) 20x24x2	(8) 20x24x2	(8) 20x24x2	(8) 20x24x2
Refrigerant Charge (Pounds of R-454B)^(c)				
Circuit 1	15.2	15.2	14.4	14.4

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

^(b) Optional field-installed and factory MERV 13 filters available.

^(c) Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.

Table 6. General data — heating performance – 15 to 25 tons

	Heating Performance					
	15 Tons			17.5 Tons ^(a)		
Heating Models	Low	Medium	High	Low	Medium	High ^(b)
Heating Input (Btu/h)	240,000	320,000	350,000	240,000	320,000	380,000 / 350,000
1 st Stage (Btu)	168,000	224,000	245,000	168,000	224,000	266,000 / 245,000
Heating Output (Btu/h)	194,400	259,200	283,500	194,400	259,200	307,800 / 283,500
1 st Stage (Btu)	136,080	181,440	198,450	136,080	181,440	215,460 / 198,450
Steady State Efficiency %	81	81	81	81	81	81 / 81
No. Burners	6	8	8	6	8	8 / 8
No. Stages	2	2	2	2	2	2 / 2
Gas Supply Line Pressure (in. wc)						
Natural Gas (minimum/maximum)	5.0/14.0	5.0/14.0	4.5/14.0	5.0/14.0	5.0/14.0	5.5/14.0 / 4.5/14.0
LP (minimum/maximum)	11.0/14.0	11.0/14.0	11.0/14.0	11.0/14.0	11.0/14.0	11.0/14.0 / 11.0/14.0
Gas Connection Pipe Size (in.)	3/4	3/4	3/4	3/4	3/4	3/4
	Heating Performance					
	20 to 25 Tons					
Heating Models	Low	Medium	High			
Heating Input (Btu/h)	240,000	320,000	380,000			
1 st Stage (Btu)	168,000	224,000	266,000			
Heating Output (Btu/h)	194,400	259,200	307,800			
1 st Stage (Btu)	136,080	181,440	215,460			
Steady State Efficiency %	81	81	81			
No. Burners	6	8	8			
No. Stages	2	2	2			
Gas Supply Line Pressure (in. wc)						
Natural Gas (minimum/maximum)	5.0/14.0	5.0/14.0	5.5/14.0			
LP (minimum/maximum)	11.0/14.0	11.0/14.0	11.0/14.0			
Gas Connection Pipe Size (in.)	3/4	3/4	3/4			

Note: Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standards Institute standards (ANSI). Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.

- ^(a) For 17.5T high heat option, input rate will de-rate from downflow to horizontal.
- ^(b) Downflow / Horizontal.



Performance Data

Gross Cooling Capacities

Table 7. Gross cooling capacities 15 tons — E/GDK180A3,4,W

CFM	Ent DB (° F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		85						95						105					
		Entering Wet Bulb Temp (°F)						Entering Wet Bulb Temp (°F)						Entering Wet Bulb Temp (°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
4800	75	168.0	135.8	189.9	107.5	210.6	74.8	160.3	131.8	181.0	103.4	200.6	70.9	151.9	127.6	171.5	98.7	189.6	66.7
	80	167.2	157.5	189.8	131.7	210.8	101.3	159.5	153.3	181.0	127.7	200.8	97.3	151.2	148.9	171.6	123.4	190.1	93.1
	85	170.8	170.8	189.1	156.3	210.8	126.0	164.7	164.7	180.4	150.7	200.9	121.9	158.0	158.0	171.0	143.5	190.1	117.5
	90	188.2	177.4	188.2	177.4	210.4	150.7	174.4	174.4	179.4	173.1	200.5	146.7	167.4	167.4	170.0	168.6	189.7	142.4
5400	75	171.9	144.5	194.1	112.2	214.6	77.2	163.8	138.3	185.0	108.1	204.1	73.2	155.1	131.3	175.2	103.7	192.8	68.8
	80	170.7	167.7	194.0	139.8	214.9	106.0	162.6	162.6	184.8	135.6	204.6	102.0	154.2	154.2	174.9	131.2	193.5	97.7
	85	177.8	177.8	193.0	159.3	214.9	133.2	171.2	171.2	183.8	160.7	204.6	129.0	164.1	164.1	173.8	156.0	193.3	124.6
	90	188.1	188.1	191.5	189.5	214.3	160.9	181.2	181.2	182.4	182.4	204.0	156.8	173.7	173.7	173.8	173.8	192.8	152.4
6000	75	175.0	146.7	197.9	117.2	217.8	78.8	166.4	146.6	188.5	113.0	207.0	74.7	157.3	141.9	178.3	108.5	195.4	70.3
	80	173.2	173.2	197.3	147.5	218.4	109.8	166.3	166.3	187.8	143.3	207.7	105.5	159.1	159.1	177.6	138.8	196.3	101.0
	85	183.7	183.7	195.7	174.4	218.1	140.2	176.8	176.8	186.1	169.9	207.4	135.9	169.2	169.2	175.8	165.1	195.9	131.4
	90	194.4	194.4	194.5	194.5	217.4	170.8	187.0	187.0	187.2	187.2	206.7	163.1	178.9	178.9	179.1	179.1	195.0	159.9
6600	75	177.1	158.2	201.1	122.0	220.6	80.3	168.3	153.6	191.3	117.7	209.5	76.1	158.9	148.8	180.7	113.1	197.6	71.7
	80	177.8	177.8	199.9	155.0	221.3	113.7	170.9	170.9	190.2	150.7	210.4	109.5	163.3	163.3	179.7	144.8	198.7	104.8
	85	188.9	188.9	197.6	183.3	220.8	147.0	181.6	181.6	187.7	178.7	209.8	142.7	173.6	173.6	177.2	173.9	197.9	138.1
	90	199.7	199.7	199.9	199.9	219.7	177.9	192.0	192.0	192.1	192.1	208.4	173.2	183.4	183.4	183.5	183.5	196.2	168.2
7200	75	178.7	165.0	203.5	126.5	223.0	81.7	169.7	160.4	193.5	122.1	211.7	77.5	160.1	155.5	182.7	117.5	199.5	73.1
	80	182.1	182.1	202.1	159.9	223.8	117.6	174.9	174.9	192.1	155.3	212.7	113.2	167.0	167.0	180.9	151.0	200.7	108.5
	85	193.4	193.4	199.0	192.0	223.0	153.7	185.8	185.8	188.9	187.3	211.7	149.3	177.5	177.5	178.0	178.0	199.6	144.7
	90	204.3	204.3	204.5	204.5	220.9	186.1	196.2	196.2	196.3	196.3	209.4	181.3	187.2	187.2	187.3	187.3	196.9	176.3
4800	Ent DB (° F)	Ambient Temperature (°F)						Ambient Temperature (°F)											
		115						120											
		Entering Wet Bulb Temp (°F)						Entering Wet Bulb Temp (°F)											
		61		67		73		61		67		73							
CFM	F	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
4800	75	143.0	121.0	161.4	94.1	177.8	62.8	138.2	117.8	156.0	91.7	171.5	60.4						
	80	142.3	142.3	161.4	118.8	178.4	88.7	137.8	137.8	156.0	116.5	172.3	86.3						
	85	150.7	150.7	160.8	141.6	178.5	112.9	146.7	146.7	155.3	139.1	172.3	110.4						
	90	159.6	159.6	159.8	159.8	178.0	137.7	155.4	155.4	155.5	155.5	171.9	135.3						
5400	75	145.6	129.7	164.7	99.1	180.5	64.2	140.6	127.2	159.1	96.6	174.1	61.9						
	80	146.8	146.8	164.3	126.6	181.5	92.3	142.8	142.8	158.7	124.2	175.2	89.8						
	85	156.2	156.2	163.1	151.0	181.2	119.8	152.0	152.0	157.5	148.4	174.8	117.4						
	90	165.3	165.3	165.4	165.4	180.7	144.2	160.7	160.7	160.9	160.9	174.3	139.1						
6000	75	147.5	136.9	167.4	103.7	182.8	65.7	142.3	134.3	161.6	101.2	176.2	63.2						
	80	151.3	151.3	166.7	134.1	184.0	96.2	147.1	147.1	160.9	129.7	177.5	93.7						
	85	160.9	160.9	164.7	160.0	183.4	126.6	156.4	156.4	158.9	157.4	176.8	124.1						
	90	170.0	170.0	170.1	170.1	182.2	154.6	165.1	165.1	165.3	165.3	175.3	151.8						
6600	75	148.9	143.8	169.4	108.2	184.7	67.0	143.6	141.1	163.5	105.6	178.0	64.6						
	80	155.1	155.1	168.2	139.5	186.1	99.9	150.7	150.7	162.1	136.8	179.4	97.4						
	85	164.9	164.9	165.8	165.8	185.1	133.3	160.2	160.2	160.3	160.3	178.4	130.7						
	90	173.9	173.9	174.0	174.0	183.0	162.9	168.8	168.8	168.9	168.9	176.0	160.1						
7200	75	149.8	149.8	171.1	112.5	186.5	68.4	144.5	144.5	165.1	109.9	179.7	66.0						
	80	158.5	158.5	169.2	145.7	187.8	103.5	153.9	153.9	163.0	143.0	181.0	100.9						
	85	168.3	168.3	168.4	168.4	186.6	139.8	163.3	163.3	163.4	163.4	179.8	136.4						
	90	177.2	177.2	177.3	177.3	183.4	170.9	171.8	171.8	171.9	171.9	176.3	168.2						

Notes:

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

Table 8. Gross cooling capacities 17.5 tons — E/GDK210A3,4,W

CFM	Ent DB (° F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		85						95						105					
		Entering Wet Bulb Temp (°F)						Entering Wet Bulb Temp (°F)						Entering Wet Bulb Temp (°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		
5600	75	195.4	156.8	222.3	125.2	247.4	87.6	186.6	152.2	212.1	120.1	235.5	82.8	177.4	147.4	201.4	115.2	222.6	78.5
	80	194.1	181.3	221.9	152.7	247.5	117.9	185.3	176.4	211.7	147.9	235.6	113.0	176.2	171.4	201.1	142.9	223.0	107.9
	85	197.1	197.1	220.4	180.6	247.3	146.4	190.3	190.3	210.4	175.8	235.6	141.4	183.0	183.0	200.0	167.7	223.2	136.2
	90	219.1	204.5	219.1	204.5	246.7	174.7	201.7	201.7	209.1	199.4	235.0	169.8	194.0	194.0	198.6	194.1	222.5	164.6
6300	75	200.0	166.8	227.3	130.5	252.2	90.5	190.8	161.3	216.8	125.6	239.6	85.4	181.2	153.4	205.7	120.5	226.1	80.0
	80	198.0	192.7	226.9	161.9	252.4	123.3	188.9	187.7	216.3	157.0	240.0	118.3	179.3	179.3	205.1	151.9	226.8	113.0
	85	205.3	205.3	225.1	186.5	252.4	154.7	198.0	198.0	214.7	185.5	240.0	149.6	190.2	190.2	203.5	180.0	226.8	144.2
	90	217.7	217.7	223.1	218.0	251.4	186.3	209.9	209.9	212.6	212.6	239.1	181.2	201.6	201.6	201.8	201.8	226.1	175.9
7000	75	203.6	171.0	232.0	136.4	256.1	92.2	193.9	169.1	221.0	131.3	242.9	87.0	183.8	163.7	209.5	126.1	228.8	81.5
	80	200.9	200.9	230.9	170.8	256.5	128.4	192.2	192.2	219.8	165.7	243.6	123.0	184.5	184.5	208.3	160.5	230.1	117.2
	85	212.4	212.4	228.6	201.3	256.2	162.6	204.7	204.7	217.5	195.8	243.3	157.4	196.4	196.4	205.9	190.2	229.6	151.9
	90	225.2	225.2	225.9	225.9	255.0	197.5	216.9	216.9	217.1	217.1	242.3	191.4	208.0	208.0	208.2	208.2	228.8	180.5
7700	75	206.2	182.3	236.0	141.9	259.2	93.8	196.1	176.9	224.6	136.8	245.6	88.5	185.8	171.5	212.5	131.4	231.1	83.0
	80	205.4	205.4	234.0	179.3	259.8	132.5	197.7	197.7	222.6	174.2	246.6	127.1	189.5	189.5	210.7	168.4	232.6	121.6
	85	218.7	218.7	230.9	211.2	259.3	170.4	210.5	210.5	219.4	205.7	245.9	165.1	201.7	201.7	207.5	200.1	231.8	159.5
	90	231.7	231.7	231.9	231.9	257.9	200.8	222.9	222.9	223.1	223.1	244.5	199.9	213.4	213.4	213.6	213.6	230.1	193.8
8400	75	208.0	189.9	239.1	147.2	261.9	95.3	197.8	184.5	227.2	141.9	247.8	90.0	187.1	179.0	214.8	136.5	233.0	84.4
	80	210.6	210.6	236.5	187.4	262.7	136.9	202.5	202.5	224.8	178.0	249.1	131.4	193.9	193.9	212.4	174.5	234.7	125.7
	85	224.1	224.1	232.5	220.9	261.8	177.9	215.5	215.5	220.7	215.3	248.1	172.6	206.4	206.4	208.5	208.5	233.7	167.0
	90	237.4	237.4	237.5	237.5	259.5	214.8	228.1	228.1	228.3	228.3	245.6	208.9	218.0	218.0	218.2	218.2	230.9	202.8
5600	75	167.8	142.5	190.0	109.5	208.9	73.0	162.8	138.7	184.2	106.8	201.6	70.1	166.6	142.5	189.9	109.5	208.9	73.0
	80	166.6	166.1	189.9	137.7	209.5	102.5	161.6	161.6	184.0	135.1	202.4	99.7	175.2	175.2	188.9	163.8	209.7	130.7
	85	175.2	175.2	188.9	163.8	209.7	130.7	171.1	171.1	183.1	160.9	202.6	127.8	185.8	185.8	187.5	187.5	209.2	159.2
	90	185.8	185.8	187.5	187.5	209.2	159.2	181.3	181.3	181.7	181.7	202.2	156.3	171.0	171.0	194.1	115.2	211.7	74.4
6300	75	171.0	150.1	194.1	115.2	211.7	74.4	165.7	147.2	188.0	112.5	204.1	71.5	170.8	170.8	193.4	146.6	212.9	107.6
	80	170.8	170.8	193.4	146.6	212.9	107.6	166.6	166.6	187.3	143.9	205.6	104.8	181.8	181.8	191.8	174.3	212.7	138.5
	85	181.8	181.8	191.8	174.3	212.7	138.5	177.4	177.4	185.6	171.4	205.3	135.6	192.6	192.6	192.8	192.8	212.1	169.5
	90	192.6	192.6	192.8	192.8	212.1	169.5	187.8	187.8	187.9	187.9	204.8	163.4	173.3	158.1	197.4	120.7	213.9	75.8
7000	75	173.3	158.1	197.4	120.7	213.9	75.8	167.8	155.2	191.0	117.8	206.0	72.9	176.1	176.1	196.1	155.2	215.6	111.5
	80	176.1	176.1	196.1	155.2	215.6	111.5	171.7	171.7	189.8	152.4	208.0	108.4	187.5	187.5	193.7	184.4	215.0	146.2
	85	187.5	187.5	193.7	184.4	215.0	146.2	182.7	182.7	187.3	181.4	207.3	143.1	198.3	198.3	198.5	198.5	214.0	178.2
	90	198.3	198.3	198.5	198.5	214.0	178.2	193.0	193.0	193.2	193.2	206.1	174.9	174.9	165.8	199.9	125.8	215.7	77.3
7700	75	174.9	165.8	199.9	125.8	215.7	77.3	169.3	162.9	193.3	122.9	207.7	74.3	180.8	180.8	198.3	158.4	217.7	115.7
	80	180.8	180.8	198.3	158.4	217.7	115.7	176.1	176.1	191.5	158.3	209.9	112.6	192.3	192.3	195.0	194.2	216.8	153.7
	85	192.3	192.3	195.0	194.2	216.8	153.7	187.3	187.3	188.4	188.4	209.0	150.6	203.0	203.0	203.2	203.2	214.8	187.4
	90	203.0	203.0	203.2	203.2	214.8	187.4	197.3	197.3	197.5	197.5	206.7	184.0	176.0	173.3	201.8	130.8	217.4	78.7
8400	75	176.0	173.3	201.8	130.8	217.4	78.7	170.3	170.2	195.1	127.9	209.3	75.7	184.8	184.8	199.4	168.4	219.4	119.7
	80	184.8	184.8	199.4	168.4	219.4	119.7	180.0	180.0	192.6	165.3	211.4	116.6	196.4	196.4	196.6	196.6	218.4	161.1
	85	196.4	196.4	196.6	196.6	218.4	161.1	191.1	191.1	191.2	191.2	210.3	158.0	206.9	206.9	207.0	207.0	215.2	196.3
	90	206.9	206.9	207.0	207.0	215.2	196.3	200.8	200.8	200.9	200.9	206.9	193.0						

Notes:

- All capacities shown are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
- MBh = Total gross capacity
- SHC = Sensible heat capacity



Performance Data

Table 9. Gross cooling capacities 20 tons — E/GDK240A3,4,W

CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		85						95						105					
		Entering Wet Bulb Temp (°F)						Entering Wet Bulb Temp (°F)						Entering Wet Bulb Temp (°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		
6400	75	221.1	177.1	253.6	142.6	286.3	102.5	209.6	171.0	240.4	136.4	271.3	96.3	197.2	164.5	226.1	129.8	254.7	90.7
	80	218.8	203.7	252.9	173.4	285.7	136.3	207.4	197.1	239.8	167.1	270.8	130.0	195.0	190.2	225.6	160.3	254.3	123.2
	85	221.0	221.0	250.5	204.0	284.6	167.5	212.3	212.3	237.7	197.8	270.0	161.1	202.8	202.8	223.7	186.6	253.9	154.3
	90	248.3	230.0	248.3	230.0	283.8	198.9	225.6	225.6	235.5	223.3	269.0	192.5	215.6	215.6	221.5	216.1	252.8	185.6
7200	75	226.4	188.0	259.7	149.9	293.0	106.3	214.3	181.2	245.8	142.4	277.1	99.8	201.4	170.2	231.2	135.6	259.8	92.8
	80	223.1	215.9	258.9	183.6	292.3	142.5	211.1	209.2	245.2	177.1	276.5	136.0	198.3	198.3	230.4	170.2	259.2	129.0
	85	230.3	230.3	256.0	211.3	291.7	177.0	221.1	221.1	242.6	208.3	276.1	170.4	210.9	210.9	227.8	200.8	258.9	163.2
	90	244.7	244.7	252.8	244.6	289.7	211.7	235.1	235.1	239.3	237.8	274.2	205.1	224.4	224.4	224.8	224.8	257.2	198.1
8000	75	230.4	193.8	265.2	155.4	298.4	108.6	217.8	189.2	251.1	148.8	281.8	101.9	204.1	181.7	235.9	141.8	263.8	94.8
	80	226.1	226.1	263.7	193.3	297.5	148.3	214.4	214.4	249.4	186.7	281.0	141.7	204.1	204.1	234.0	179.6	262.9	134.6
	85	238.5	238.5	260.1	226.5	296.8	185.8	228.8	228.8	245.8	219.4	280.5	179.0	218.0	218.0	230.4	211.7	262.6	171.7
	90	253.5	253.5	255.8	255.8	294.3	224.0	243.3	243.3	243.5	243.5	278.2	217.4	232.0	232.0	232.2	232.2	260.6	204.8
8800	75	233.3	204.8	270.2	161.6	302.8	110.6	220.2	197.6	255.6	154.9	285.7	103.8	206.1	190.0	239.8	147.6	267.0	96.6
	80	230.4	230.4	267.5	202.6	301.5	153.7	220.6	220.6	252.7	195.9	284.5	145.7	209.8	209.8	236.9	188.7	266.3	138.2
	85	245.7	245.7	262.7	237.3	300.8	194.3	235.5	235.5	248.0	230.0	283.9	187.4	224.2	224.2	232.1	222.3	265.6	180.0
	90	261.2	261.2	261.5	261.5	297.8	232.5	250.5	250.5	250.7	250.7	281.1	225.7	238.6	238.6	238.7	238.7	262.5	217.6
9600	75	235.3	212.9	274.5	167.6	306.6	112.5	221.9	205.7	259.1	160.6	289.0	105.7	207.4	198.0	242.5	153.1	269.8	98.3
	80	236.3	236.3	270.4	211.7	305.2	157.6	226.1	226.1	255.3	202.9	288.0	150.5	214.9	214.9	238.6	194.6	269.4	142.9
	85	252.2	252.2	264.5	247.6	304.0	202.6	241.5	241.5	249.4	240.3	286.7	195.6	229.7	229.7	233.2	232.6	267.9	188.1
	90	268.1	268.1	268.3	268.3	300.2	243.1	256.9	256.9	257.1	257.1	282.7	235.5	244.3	244.3	244.5	244.5	263.7	227.3
CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)											
		115						120											
		Entering Wet Bulb Temp (°F)						Entering Wet Bulb Temp (°F)											
		61		67		73		61		67		73							
		MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC						
6400	75	183.9	156.3	210.5	121.9	236.7	83.4	176.8	150.3	202.6	118.2	227.1	79.6						
	80	181.8	181.8	210.3	153.2	236.4	116.0	174.8	174.8	202.2	149.5	226.9	112.2						
	85	192.2	192.2	208.6	181.5	236.3	146.9	186.6	186.6	200.5	177.4	226.8	143.0						
	90	204.6	204.6	206.5	206.5	235.1	178.3	198.7	198.7	198.9	198.9	225.7	174.5						
7200	75	187.2	165.3	215.4	128.3	240.9	85.4	179.7	161.3	207.1	124.5	230.8	81.5						
	80	186.9	186.9	214.4	162.9	240.5	121.6	181.1	181.1	205.9	159.1	230.5	117.8						
	85	199.7	199.7	211.7	192.8	240.3	155.6	193.7	193.7	203.3	188.7	230.4	151.6						
	90	212.6	212.6	212.8	212.8	238.8	190.0	206.2	206.2	206.4	206.4	229.0	182.0						
8000	75	189.5	173.9	219.5	134.3	244.2	87.2	181.8	169.8	210.8	130.3	233.8	83.3						
	80	192.8	192.8	217.5	172.2	243.7	125.6	186.8	186.8	208.7	167.3	233.6	121.5						
	85	206.2	206.2	213.8	203.7	243.3	164.0	199.8	199.8	205.0	199.5	233.1	159.9						
	90	219.4	219.4	219.6	219.6	241.2	199.0	212.6	212.6	212.7	212.7	230.8	194.6						
8800	75	191.1	182.1	222.5	139.9	246.9	88.9	183.1	177.9	213.4	135.9	236.2	85.0						
	80	198.1	198.1	219.5	178.7	246.7	130.3	191.8	191.8	210.4	174.3	236.3	126.1						
	85	211.8	211.8	215.1	214.2	245.7	172.2	205.1	205.1	206.1	206.1	235.3	168.1						
	90	225.3	225.3	225.4	225.4	242.5	209.0	218.0	218.0	218.2	218.2	231.9	204.5						
9600	75	192.0	190.0	224.8	145.3	249.2	90.6	184.0	184.0	215.5	141.2	238.3	86.7						
	80	202.7	202.7	220.9	186.2	249.2	134.8	196.1	196.1	211.5	181.8	238.6	130.6						
	85	216.7	216.7	216.8	216.8	247.7	180.2	209.7	209.7	209.8	209.8	237.0	176.1						
	90	230.3	230.3	230.5	230.5	243.2	218.7	222.7	222.7	222.8	222.8	232.4	214.3						

Notes:

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

Table 10. Gross cooling capacities 25 tons — E/GDK300A3,4,W

CFM	Ent DB (° F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		85						95						105					
		Entering Wet Bulb Temp (°F)						Entering Wet Bulb Temp (°F)						Entering Wet Bulb Temp (°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		
7000	75	248.6	195.2	283.6	157.6	316.0	113.0	235.8	188.3	268.8	150.5	298.7	105.9	223.8	181.8	254.4	143.6	281.2	99.8
	80	245.4	223.9	283.0	190.8	315.7	149.3	232.7	216.4	268.3	183.6	298.5	142.0	220.9	209.5	253.8	176.6	281.2	134.7
	85	244.2	244.2	280.3	223.5	314.8	183.8	234.7	234.7	265.6	216.3	297.9	175.7	225.6	225.6	251.5	209.5	280.9	168.3
	90	277.6	251.6	277.6	251.6	314.2	216.7	249.0	249.0	262.9	243.8	297.1	209.3	239.2	239.2	248.9	236.4	279.9	201.9
8000	75	255.6	208.6	291.5	166.5	323.8	117.4	241.9	201.4	275.7	160.0	305.4	109.8	229.3	194.7	260.3	150.9	286.8	102.2
	80	251.2	238.7	290.5	203.1	323.4	156.6	237.6	230.9	274.7	195.6	305.2	149.0	225.1	223.8	259.4	188.3	286.8	141.5
	85	256.1	256.1	287.0	239.8	322.9	194.3	245.8	245.8	271.4	225.1	305.0	186.6	235.8	235.8	256.5	221.9	286.7	178.9
	90	271.5	271.5	283.0	269.0	320.9	231.9	260.5	260.5	267.5	261.0	302.9	224.3	249.7	249.7	252.6	252.6	284.9	216.8
9000	75	260.7	220.1	297.7	173.3	329.9	119.9	246.4	207.5	281.5	165.6	310.7	112.1	232.9	203.6	265.6	158.2	291.1	104.3
	80	254.9	252.5	296.0	214.6	329.4	164.7	240.7	240.7	279.5	206.9	310.4	156.9	229.7	229.7	263.5	199.6	291.2	148.1
	85	266.2	266.2	291.6	251.1	328.9	204.8	255.1	255.1	275.1	242.7	309.8	196.9	244.3	244.3	259.2	234.7	290.6	189.1
	90	282.0	282.0	286.2	285.4	325.9	246.5	270.1	270.1	270.3	270.3	307.2	238.9	258.4	258.4	258.6	258.6	288.5	227.6
10000	75	264.2	229.4	303.4	180.6	334.8	122.1	249.1	221.1	286.5	172.8	314.8	114.2	235.2	213.4	270.0	165.2	294.6	106.3
	80	258.3	258.3	300.1	225.7	334.1	170.0	247.2	247.2	283.0	217.9	314.5	161.0	236.6	236.6	266.5	210.4	294.9	153.0
	85	274.8	274.8	294.2	263.7	333.1	214.9	263.0	263.0	277.2	255.2	313.5	206.9	251.4	251.4	260.9	247.1	293.7	198.9
	90	290.9	290.9	291.1	291.1	329.5	257.8	278.3	278.3	278.5	278.5	310.1	249.0	265.7	265.7	265.9	265.9	290.3	240.2
11000	75	266.4	238.9	308.2	187.6	338.8	124.2	250.9	230.5	290.4	179.6	318.3	116.2	236.6	222.7	272.9	171.7	297.5	108.2
	80	265.4	265.4	303.2	236.4	338.2	174.8	253.8	253.8	285.7	225.8	318.2	166.7	242.5	242.5	268.4	217.7	298.0	158.5
	85	282.2	282.2	295.8	275.7	336.4	224.7	269.8	269.8	278.5	267.2	316.3	216.6	257.5	257.5	261.6	259.1	296.1	208.6
	90	298.6	298.6	298.8	298.8	331.6	269.3	285.3	285.3	285.5	285.5	311.4	260.4	271.9	271.9	272.1	272.1	291.2	251.6
CFM	Ent DB (° F)	Ambient Temperature (°F)						Ambient Temperature (°F)											
		115						120											
		Entering Wet Bulb Temp (°F)						Entering Wet Bulb Temp (°F)											
		61		67		73		61		67		73							
		MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC						
7000	75	213.3	176.1	240.7	137.1	263.7	92.5	208.6	173.5	234.2	134.0	255.0	88.9						
	80	210.5	203.5	240.3	170.0	263.9	127.5	206.0	200.8	233.8	166.8	255.3	123.9						
	85	217.3	217.3	238.4	200.6	264.0	161.0	213.5	213.5	232.1	195.5	255.5	157.4						
	90	229.9	229.9	235.8	229.5	263.0	194.7	225.5	225.5	229.7	226.3	254.7	191.1						
8000	75	218.0	185.3	245.9	144.0	268.2	94.6	213.0	181.3	239.0	140.7	258.8	90.8						
	80	214.1	214.1	245.0	181.5	268.6	134.1	209.4	209.4	238.1	178.2	259.5	131.9						
	85	226.5	226.5	242.2	214.5	268.4	171.3	222.1	222.1	235.5	211.1	259.4	167.6						
	90	239.3	239.3	239.4	239.4	267.1	209.4	234.1	234.1	234.3	234.3	258.2	205.7						
9000	75	220.9	196.9	250.4	151.1	271.6	96.5	215.6	193.9	243.1	147.6	261.8	92.7						
	80	220.6	220.6	248.4	192.6	272.3	139.4	216.3	216.3	241.2	189.2	262.9	135.5						
	85	234.0	234.0	244.4	227.2	271.7	181.3	229.1	229.1	237.4	223.7	262.2	177.5						
	90	246.9	246.9	247.0	247.0	269.7	219.9	241.1	241.1	241.2	241.2	260.3	215.8						
10000	75	222.8	206.5	253.9	157.8	274.3	98.4	217.2	203.5	246.1	154.2	264.2	94.5						
	80	226.7	226.7	250.9	200.0	275.4	145.0	222.1	222.1	243.5	195.1	265.6	141.0						
	85	240.3	240.3	245.5	239.5	274.2	191.1	234.9	234.9	238.2	236.0	264.4	187.1						
	90	253.1	253.1	253.3	253.3	270.8	231.6	246.8	246.8	246.9	246.9	261.1	227.4						
11000	75	223.8	215.8	256.3	164.2	276.7	100.3	218.1	212.7	248.2	160.5	266.3	96.4						
	80	232.0	232.0	252.1	209.7	277.9	150.3	227.0	227.0	244.3	205.9	267.8	146.2						
	85	245.6	245.6	246.0	246.0	276.1	200.7	239.7	239.7	239.8	239.8	266.2	196.7						
	90	258.4	258.4	258.5	258.5	271.2	243.0	251.5	251.5	251.6	251.6	261.3	238.8						

Notes:

- All capacities shown are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
- MBh = Total gross capacity
- SHC = Sensible heat capacity



Performance Data

Evaporator Fan Performance

Table 11. Evaporator fan performance - 15 ton units with gas heat - GDK180 - downflow airflow

Available External Static Pressure (Inches of Water)																					
cfm	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00		
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
	3-hp Standard Motor, Low Static Drive Accessory										3-hp Standard Motor and Drive										
4800	483	0.69	525	0.81	562	0.92	602	1.05	638	1.17	671	1.3	703	1.43	732	1.56	760	1.68	787	1.81	
5400	532	0.94	572	1.08	607	1.21	640	1.34	675	1.49	707	1.63	738	1.76	767	1.91	794	2.05	820	2.20	
6000	581	1.26	619	1.41	653	1.56	683	1.71	713	1.85	744	2.01	774	2.17	802	2.32	829	2.48	855	2.64	
6600	632	1.63	667	1.81	699	1.98	728	2.14	756	2.30	782	2.45	812	2.63	839	2.80	865	2.98	890	3.14	
7200	683	2.08	716	2.28	747	2.46	774	2.64	801	2.82	826	2.99	850	3.16	877	3.35	902	3.54	927	3.73	
Available External Static Pressure (Inches of Water)																					
cfm	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 Motor and Drive						3-hp Standard Motor and High Static Drive Accessory						5-hp Oversized Motor and Drive								
4800	812	1.93	838	2.09	864	2.25	889	2.41	912	2.57	936	2.74	958	2.90	980	3.07	1001	3.24	1022	3.41	
5400	845	2.34	870	2.48	893	2.62	915	2.76	939	2.94	962	3.12	984	3.30	1006	3.48	1027	3.67	1047	3.85	
6000	880	2.80	903 ^(a)	2.96	926	3.12	949	3.28	970	3.43	991	3.59	1011	3.75	1032	3.93	1053	4.13	1074	4.33	
6600	915	3.31	938	3.49	961	3.67	983	3.85	1004	4.02	1025	4.20	1045	4.37	1064	4.55	1083	4.72	1102	4.89	
7200	951	3.92	974	4.10	996	4.29	1017	4.48	1038	4.68	1059	4.87	—	—	—	—	—	—	—	—	

Notes:

1. For Standard Evaporator Fan Speed (rpm), see table Standard motor and drive/fan speed.
2. For High Evaporator Fan Speed (rpm), see table Standard motor and high static drive accessory sheave / fan speed.
3. For Oversized Evaporator Fan Speed (rpm), see table Oversized motor and drive/fan speed.
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, refer to accessory installer's guides ACC-SVN163*-EN and ACC-SVN169*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
8. Available External Static Pressure is the static pressure between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

^(a) 3-hp Standard Motor and High Static Drive Accessory.

Table 12. Evaporator fan performance - 15 ton units with gas heat (model number digit 10 = L, M, X, Y) - GDK180 - horizontal airflow

Available External Static Pressure (Inches of Water)																				
cfm	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	3-hp Standard Motor, Low Static Drive Accessory										3-hp Standard Motor and Drive									
4800	488	0.72	532	0.85	572	0.99	609	1.12	643	1.24	675	1.37	707	1.52	738	1.67	767	1.82	796	1.98
5400	539	1.00	578	1.13	615	1.29	650	1.43	683	1.58	714	1.72	743	1.87	771	2.02	800	2.19	827	2.36
6000	591	1.34	626	1.48	660	1.65	693	1.82	724	1.98	754	2.14	782	2.30	809	2.46	834	2.62	860	2.79
6600	643	1.75	675	1.90	706	2.07	738	2.26	767	2.45	795	2.62	823	2.80	849	2.98	873	3.15	897	3.33
7200	696	2.24	725	2.40	754	2.58	783	2.77	811	2.99	838	3.19	864	3.38	889	3.57	913	3.76	937	3.95
Available External Static Pressure (Inches of Water)																				
cfm	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 Motor and Drive						3-hp Standard Motor and High Static Drive Accessory						5-hp Oversized Motor and Drive							
4800	823	2.13	849	2.29	874	2.44	899	2.60	923	2.76	946	2.91	969	3.07	991	3.23	1012	3.39	1033	3.55
5400	853	2.53	879	2.70	903 ^(a)	2.88	927	3.05	951	3.22	973	3.40	995	3.57	1017	3.75	1038	3.93	1059	4.11
6000	886	2.98	910	3.17	934	3.36	957	3.55	980	3.74	1003	3.94	1024	4.13	1045	4.32	1066	4.52	1086	4.71
6600	920	3.50	944	3.70	967	3.91	990	4.11	1012	4.32	1033	4.53	1054	4.74	1075	4.95	—	—	—	—
7200	959	4.15	981	4.34	1002	4.53	1024	4.74	1045	4.96	—	—	—	—	—	—	—	—	—	—

Notes:

1. For Standard Evaporator Fan Speed (rpm), see table Standard motor and drive/fan speed.
2. For High Evaporator Fan Speed (rpm), see table Standard motor and high static drive accessory sheave / fan speed.
3. For Oversized Evaporator Fan Speed (rpm), see table Oversized motor and drive/fan speed.
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, refer to accessory installer's guides ACC-SVN163*-EN and ACC-SVN169*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
8. Available External Static Pressure is the static pressure between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

^(a) 3-hp Standard Motor and High Static Drive Accessory.



Performance Data

Table 13. Evaporator fan performance - 15 ton units with gas heat (model number digit 10 = H, Z) - GDK180 - horizontal airflow

Available External Static Pressure (Inches of Water)																				
cfm	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	3-hp Standard Motor, Low Static Drive Accessory										3-hp Standard Motor Drive									
4800	—	—	—	—	—	—	—	—	—	—	675	1.37	707	1.52	738	1.67	767	1.82	796	1.98
5400	—	—	—	—	—	—	650	1.43	683	1.58	714	1.72	743	1.87	771	2.02	800	2.19	827	2.36
6000	591	1.34	626	1.48	660	1.65	693	1.82	724	1.98	754	2.14	782	2.30	809	2.46	834	2.62	860	2.79
6600	643	1.75	675	1.90	706	2.07	738	2.26	767	2.45	795	2.62	823	2.80	849	2.98	873	3.15	897	3.33
7200	696	2.24	725	2.40	754	2.58	783	2.77	811	2.99	838	3.19	864	3.38	889	3.57	913	3.76	937	3.95
Available External Static Pressure (Inches of Water)																				
cfm	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 Motor Drive						3-hp Standard Motor, High Static Drive Accessory						5-hp Oversize Motor, Drive							
4800	823	2.13	849	2.29	874	2.44	899	2.60	923	2.76	946	2.91	969	3.07	991	3.23	1012	3.39	1033	3.55
5400	853	2.53	879	2.70	903 ^(a)	2.88	927	3.05	951	3.22	973	3.40	995	3.57	1017	3.75	1038	3.93	1059	4.11
6000	886	2.98	910	3.17	934	3.36	957	3.55	980	3.74	1003	3.94	1024	4.13	1045	4.32	1066	4.52	1086	4.71
6600	920	3.50	944	3.70	967	3.91	990	4.11	1012	4.32	1033	4.53	1054	4.74	1075	4.95	—	—	—	—
7200	959	4.15	981	4.34	1002	4.53	1024	4.74	1045	4.96	—	—	—	—	—	—	—	—	—	—

Notes:

1. For Standard Evaporator Fan Speed (rpm), see table Standard motor and drive/fan speed.
2. For High Evaporator Fan Speed (rpm), see table Standard motor and high static drive accessory sheave / fan speed.
3. For Oversized Evaporator Fan Speed (rpm), see table Oversized motor and drive/fan speed.
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, refer to accessory installer's guides ACC-SVN163*-EN and ACC-SVN169*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
8. Available External Static Pressure is the static pressure between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

^(a) 3-hp Standard Motor and High Static Drive Accessory.

Table 14. Evaporator fan performance - 15 ton cooling only units (model number digit 8 = 3, 4, W) - EDK180 - downflow airflow

Available External Static Pressure (Inches of Water)																				
cfm	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
3-hp Standard Motor, Low Static Drive Accessory														3-hp Standard Motor Drive						
4800	—	—	—	—	489	0.68	530	0.78	568	0.89	608	1.00	644	1.11	679	1.24	713	1.39	746	1.53
5400	—	—	—	—	517	0.86	558	0.99	594	1.11	628	1.23	663	1.35	697	1.48	729	1.60	760	1.75
6000	—	—	500	0.93	546	1.08	586	1.23	622	1.37	655	1.50	685	1.63	717	1.76	748	1.91	778	2.05
6600	480	0.98	530	1.17	575	1.34	614	1.50	650	1.66	683	1.81	713	1.96	741	2.10	768	2.24	798	2.40
7200	514	1.24	562	1.44	604	1.63	643	1.82	679	1.99	711	2.16	741	2.33	769	2.49	795	2.65	821	2.80
Available External Static Pressure (Inches of Water)																				
cfm	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 Motor Drive										3-hp Standard Motor, High Static Drive Accessory										
4800	777	1.68	806	1.82	832	1.97	858	2.12	882	2.26	906	2.41	928	2.56	951	2.72	972	2.87	994	3.02
5400	791	1.91	820	2.07	849	2.24	876	2.40	902	2.57	926	2.73	949	2.89	971	3.06	993	3.23	1014	3.39
6000	806	2.18	835	2.34	863	2.52	890	2.70	916	2.88	942	3.06	966	3.24	990	3.43	1013	3.61	1034	3.79
6600	826	2.55	853	2.71	879	2.86	905	3.01	931	3.20	956	3.40	981	3.60	1004	3.80	1028	4.00	1050	4.20
7200	846	2.96	873	3.13	899	3.30	924	3.47	948	3.63	972	3.79	995	3.98	1019	4.19	1042	4.41	1065	4.62
5-hp Oversize Motor, Drive																				

Notes:

1. For Standard Evaporator Fan Speed (rpm), see table Standard motor and drive/fan speed.
2. For High Evaporator Fan Speed (rpm), see table Standard motor and high static drive accessory sheave / fan speed.
3. For Oversized Evaporator Fan Speed (rpm), see table Oversized motor and drive/fan speed.
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, refer to accessory installer's guides ACC-SVN163*-EN and ACC-SVN169*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
8. Available External Static Pressure is the static pressure between the return duct and the supply duct plus the static pressure drop caused by accessories and options.



Performance Data

Table 15. Evaporator fan performance - 15 ton cooling only units (model number digit 8 = 3, 4, W) - EDK180 - horizontal airflow

Available External Static Pressure (Inches of Water)																				
cfm	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	3-hp Standard Motor, Low Static Drive Accessory											3-hp Standard Motor Drive								
4800	—	—	475	0.66	517	0.77	563	0.92	605	1.07	644	1.21	680	1.35	714	1.51	745	1.66	775	1.81
5400	—	—	512	0.87	552	1.00	589	1.13	631	1.30	669	1.46	705	1.63	738	1.79	770	1.95	799	2.12
6000	498	0.94	548	1.12	589	1.28	624	1.42	657	1.56	695	1.75	730	1.93	763	2.12	794	2.30	824	2.48
6600	536	1.21	585	1.41	626	1.60	660	1.76	691	1.91	721	2.06	755	2.27	788	2.48	819	2.68	848	2.88
7200	575	1.52	623	1.75	662	1.96	697	2.15	727	2.32	755	2.49	782	2.65	814	2.87	844	3.10	873	3.32
Available External Static Pressure (Inches of Water)																				
cfm	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 Motor Drive				3-hp Standard Motor, High Static Drive Accessory								5-hp Oversize Motor, Drive							
4800	804	1.96	831	2.12	858	2.27	883	2.42	907	2.58	931	2.74	953	2.92	975	3.09	996	3.27	1017	3.45
5400	828	2.29	855	2.47	881	2.64	906	2.81	931	2.98	954	3.15	977	3.33	1000	3.5	1021	3.67	1042	3.86
6000	852	2.66	879 ^(a)	2.85	905	3.04	930	3.23	954	3.42	978	3.61	1001	3.8	1023	3.99	1044	4.18	1066	4.37
6600	877	3.08	904	3.28	930	3.47	954	3.68	979	3.89	1002	4.1	1025	4.31	1047	4.52	1068	4.73	1089	4.94
7200	901	3.54	928	3.76	954	3.98	979	4.19	1003	4.41	1026	4.63	1049	4.86	—	—	—	—	—	—
	5-hp Oversize Motor, Drive																			

Notes:

1. For Standard Evaporator Fan Speed (rpm), see table Standard motor and drive/fan speed.
2. For High Evaporator Fan Speed (rpm), see table Standard motor and high static drive accessory sheave / fan speed.
3. For Oversized Evaporator Fan Speed (rpm), see table Oversized motor and drive/fan speed.
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, refer to accessory installer's guides ACC-SVN163*-EN and ACC-SVN169*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
8. Available External Static Pressure is the static pressure between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

^(a) 3-hp Standard Motor and High Static Drive Accessory.

Table 16. Evaporator fan performance - 17.5 ton unit with gas heat - GDK210 - downflow airflow

Available External Static Pressure (Inches of Water)																				
cfm	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	5-hp Standard Motor, Low Static Drive Accessory										5-hp Standard Motor Drive									
5600	554	1.06	592	1.21	627	1.34	658	1.47	693	1.63	725	1.77	755	1.92	783	2.07	811	2.22	837	2.37
6300	613	1.46	649	1.63	681	1.79	711	1.94	739	2.09	769	2.26	799	2.43	826	2.59	853	2.75	878	2.92
7000	673	1.96	706	2.15	737	2.33	765	2.51	792	2.67	817	2.84	844	3.02	871	3.21	897	3.39	921	3.58
7700	733	2.57	764	2.78	794	2.98	820	3.18	846	3.37	870	3.55	893	3.73	916	3.92	941	4.13	965	4.34
8400	794	3.29	823	3.52	851	3.75	877	3.96	901	4.17	924	4.38	946	4.58	967	4.78	987	4.97	1011 ^(a)	5.20
											5-hp Standard Motor, High Static Drive Accessory									
Available External Static Pressure (Inches of Water)																				
cfm	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 Standard Motor Drive										5-hp Standard Motor, High Static Drive Accessory									
5600	862	2.52	886	2.67	909	2.81	931	2.96	953	3.11	976	3.30	998	3.48	1019	3.67	1040	3.86	1061	4.05
6300	903	3.09	926	3.26	949	3.43	971	3.60	992	3.76	1013	3.93	1033	4.10	1053	4.26	1072	4.43	1093	4.64
7000	945	3.75	968	3.94	990	4.13	1012	4.32	1033	4.51	1053	4.70	1073	4.88	1093	5.07	1112	5.25	1130	5.44
7700	989	4.54	1011	4.74	1033	4.94	1054	5.13	1075	5.34	1095	5.55	1114	5.76	1134	5.97	1152	6.18	1170	6.38
8400	1033	5.43	1055	5.65	1077	5.87	1097	6.09	1118	6.31	1137	6.52	1156	6.74	1175	6.97	1194	7.20	—	—
	7.5 - hp Oversized Motor, Drive																			

Notes:

- For Standard Evaporator Fan Speed (rpm), see table Standard motor and drive/fan speed.
- For High Evaporator Fan Speed (rpm), see table Standard motor and high static drive accessory sheave / fan speed.
- For Oversized Evaporator Fan Speed (rpm), see table Oversized motor and drive/fan speed.
- Fan motor heat (MBh) = 3.15 x Fan bhp.
- Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
- For all non-standard sheave combinations, refer to accessory installer's guides ACC-SVN163*-EN and ACC-SVN169*-EN.
- 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.
- Available External Static Pressure is the static pressure between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

^(a) 7.5-hp Oversize Motor and Drive.



Performance Data

Table 17. Evaporator fan performance - 17.5 ton unit with gas heat - GDK210 - horizontal airflow

Available External Static Pressure (Inches of Water)																				
cfm	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	5-hp Standard Motor, Low Static Drive Accessory									5-hp Standard Motor Drive										
5600	561	1.12	599	1.26	635	1.43	670	1.58	702	1.73	732	1.88	761	2.03	788	2.18	816	2.36	843	2.53
6300	622	1.56	656	1.71	689	1.88	721	2.07	751	2.24	780	2.41	808	2.58	834	2.74	859	2.91	884	3.08
7000	684	2.10	714	2.26	745	2.44	774	2.64	803	2.85	830	3.04	857	3.22	882	3.41	906	3.60	930	3.79
7700	747	2.76	775	2.93	802	3.12	829	3.32	856	3.55	882	3.78	907	3.99	931	4.19	955	4.40	977 ^(a)	4.61
8400	810	3.54	836	3.74	860	3.93	886	4.15	910	4.37	935	4.63	959	4.87	982	5.10	1004	5.33	1026	5.55
																7.5 - hp Oversized Motor, Drive				
Available External Static Pressure (Inches of Water)																				
cfm	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 Standard Motor Drive									5-hp Standard Motor, High Static Drive Accessory										
5600	869	2.71	894	2.89	919	3.07	942	3.25	965	3.43	988	3.61	1010	3.79	1031	3.98	1052	4.16	1073	4.35
6300	909	3.28	933	3.48	956	3.68	979	3.88	1001	4.08	1023	4.28	1045	4.48	1066	4.69	1086	4.89	1106	5.09
7000	952	3.97	974	4.16	996	4.37	1019	4.59	1041	4.81	1062	5.03	1082	5.25	1102	5.48	1122	5.70	1142	5.93
7700	999	4.81	1021	5.02	1041	5.23	1061	5.43	1081	5.64	1102	5.88	1122	6.12	1142	6.37	1161	6.61	1180	6.85
8400	1047	5.78	1068	6.01	1088	6.23	1108	6.45	1127	6.68	1146	6.90	1164	7.13	1182	7.35	—	—	—	—
	7.5 - hp Oversized Motor, Drive																			

Notes:

1. For Standard Evaporator Fan Speed (rpm), see table Standard motor and drive/fan speed.
2. For High Evaporator Fan Speed (rpm), see table Standard motor and high static drive accessory sheave / fan speed.
3. For Oversized Evaporator Fan Speed (rpm), see table Oversized motor and drive/fan speed.
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, refer to accessory installer's guides ACC-SVN163*-EN and ACC-SVN169*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
8. Available External Static Pressure is the static pressure between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

^(a) 5-hp Standard Motor and high Static Drive.

Table 18. Evaporator fan performance - 17.5 ton cooling only units (model number digit 8 = 3, 4, W) - EDK210 - downflow airflow

Available External Static Pressure (Inches of Water)																				
cfm	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	5-hp Standard Motor, Low Static Drive Accessory														5-hp Standard Motor Drive					
5600	—	—	—	—	—	—	572	1.08	608	1.21	641	1.33	675	1.46	709	1.59	740	1.72	771	1.85
6300	—	—	—	—	566	1.23	606	1.38	642	1.53	674	1.68	705	1.81	733	1.95	764	2.10	794	2.25
7000	—	—	559	1.38	601	1.56	640	1.74	676	1.91	708	2.07	738	2.24	766	2.39	792	2.54	818	2.69
7700	551	1.52	597	1.74	638	1.95	675	2.15	710	2.35	742	2.53	771	2.71	799	2.89	825	3.07	850	3.24
8400	593	1.93	636	2.17	675	2.41	711	2.63	744	2.85	776	3.06	805	3.26	833	3.46	859	3.65	883	3.85
	Available External Static Pressure (Inches of Water)																			
cfm	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 Standard Motor Drive														5-hp Standard Motor, High Static Drive Accessory					
5600	801	2.02	831	2.19	859	2.36	886	2.53	912	2.70	938	2.88	961	3.05	983	3.22	1004	3.39	1025	3.56
6300	822	2.40	849	2.54	877	2.71	904	2.89	930	3.08	955	3.28	980	3.47	1004	3.66	1027	3.85	1049	4.05
7000	846	2.86	873	3.03	899	3.19	924	3.35	948	3.51	973	3.70	997	3.91	1021	4.12	1044	4.33	1067	4.55
7700	874	3.40	897	3.57	923	3.75	948	3.94	972	4.12	995	4.30	1018	4.47	1040	4.65	1062	4.84	1084	5.07
8400	907	4.04	929	4.22	951	4.40	973	4.58	995	4.78	1019	4.98	1041	5.18	1063	5.38	1085	5.57	1105	5.76
	7.5 - hp Oversized Motor and Drive																			

Notes:

1. For Standard Evaporator Fan Speed (rpm), see table Standard motor and drive/fan speed.
2. For High Evaporator Fan Speed (rpm), see table Standard motor and high static drive accessory sheave / fan speed.
3. For Oversized Evaporator Fan Speed (rpm), see table Oversized motor and drive/fan speed.
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, refer to accessory installer's guides ACC-SVN163*-EN and ACC-SVN169*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
8. Available External Static Pressure is the static pressure between the return duct and the supply duct plus the static pressure drop caused by accessories and options.



Performance Data

Table 19. Evaporator fan performance - 17.5 ton cooling only units (model number digit 8 = 3, 4, W) - EDK210 - horizontal airflow

Available External Static Pressure (Inches of Water)																				
cfm	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	5-hp Standard Motor, Low Static Drive Accessory											5-hp Standard Motor Drive								
5600	—	—	529	0.97	569	1.11	605	1.24	645	1.41	683	1.58	719	1.75	752	1.92	783	2.09	813	2.27
6300	—	—	573	1.29	613	1.46	647	1.61	679	1.75	714	1.94	749	2.14	782	2.33	813	2.52	842	2.72
7000	571	1.45	617	1.67	657	1.87	691	2.05	721	2.21	749	2.37	780	2.57	813	2.79	843	3.01	872	3.22
7700	617	1.87	663	2.13	701	2.35	735	2.57	764	2.76	792	2.94	818	3.11	844	3.30	874	3.55	903	3.79
8400	664	2.37	709	2.67	745	2.92	778	3.16	809	3.39	835	3.59	860	3.79	884	3.98	907	4.17	934	4.42
	Available External Static Pressure (Inches of Water)																			
cfm	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 Standard Motor Drive											5-hp Standard Motor, High Static Drive Accessory								
5600	841	2.45	868	2.62	894	2.80	919	2.98	944	3.16	967	3.34	990	3.52	1012	3.70	1034	3.88	1055	4.06
6300	871	2.90	898	3.10	923	3.30	948	3.50	972	3.70	996	3.90	1018	4.10	1041	4.30	1062	4.50	1083	4.71
7000	900	3.44	927	3.65	953	3.86	978	4.07	1002	4.29	1025	4.51	1047	4.74	1069	4.96	1091	5.18	1112	5.41
7700	930	4.03	957	4.27	982	4.50	1007	4.74	1031	4.97	1054	5.20	1077	5.43	1099	5.67	1120	5.92	1141	6.16
8400	961	4.68	987 ^(a)	4.95	1013	5.21	1037	5.47	1061	5.73	1084	5.98	1106	6.24	1128	6.49	1149	6.75	—	—
	7.5 - hp Oversized Motor and Drive																			

Notes:

1. For Standard Evaporator Fan Speed (rpm), see table Standard motor and drive/fan speed.
2. For High Evaporator Fan Speed (rpm), see table Standard motor and high static drive accessory sheave / fan speed.
3. For Oversized Evaporator Fan Speed (rpm), see table Oversized motor and drive/fan speed.
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, refer to accessory installer's guides ACC-SVN163*-EN and ACC-SVN169*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
8. Available External Static Pressure is the static pressure between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

^(a) 5-hp Standard Motor and High Static Drive Accessory.

Table 20. Evaporator fan performance - 20 ton unit with gas heat - GDK240 - downflow airflow

Available External Static Pressure (Inches of Water)																				
cfm	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
5-hp Standard Motor, Low Static Drive Accessory															5-hp Standard Motor Drive					
6400	621	1.53	657	1.70	689	1.86	719	2.02	746	2.17	776	2.34	805	2.51	833	2.67	859	2.84	884	3.00
7200	690	2.12	723	2.32	753	2.51	781	2.69	807	2.86	832	3.03	857	3.21	884	3.40	909	3.60	934	3.78
8000	759	2.86	790	3.08	818	3.29	844	3.50	869	3.70	893	3.89	915	4.08	937	4.27	961	4.48	985	4.70
8800	829	3.76	857	4.00	884	4.24	909	4.47	932	4.69	955	4.91	976	5.12	997	5.33	1017	5.54	1037	5.75
9600	899	4.83	925 ^(a)	5.10	950 ^(a)	5.36	974 ^(a)	5.61	997	5.86	1018	6.10	1039	6.34	1059	6.58	1078	6.81	1097	7.03
7.5-hp Oversized Motor and Drive																				
Available External Static Pressure (Inches of Water)																				
cfm	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 Standard Motor Drive															5-hp Standard Motor, High Static Drive Accessory					
6400	909	3.18	932	3.35	955	3.52	977	3.70	998	3.87	1019	4.03	1039	4.20	1059	4.37	1078	4.54	1097	4.73
7200	957	3.97	980	4.15	1002	4.34	1024	4.54	1045	4.74	1065 ^(b)	4.93	1085	5.12	1104	5.32	1123	5.51	1142	5.70
8000	1008	4.91	1030	5.12	1052	5.32	1073	5.53	1093	5.73	1113	5.95	1132	6.17	1151	6.38	1170	6.60	1188	6.82
8800	1059	5.99	1081	6.23	1102	6.46	1123	6.69	1143	6.92	1162	7.15	1181	7.37	1199	7.59	—	—	—	—
9600	1115	7.26	1133	7.49	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7.5-hp Oversized Motor and Drive																				

Notes:

- For Standard Evaporator Fan Speed (rpm), see table Motor and drive/fan speed.
- For High Evaporator Fan Speed (rpm), see table Motor and drive/fan speed.
- For Oversized Evaporator Fan Speed (rpm), see table Motor and drive/fan speed.
- Fan motor heat (MBh) = 3.15 x Fan bhp.
- Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
- For all non-standard sheave combinations, refer to accessory installer's guides ACC-SVN163*-EN and ACC-SVN169*-EN.
- 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.
- Available External Static Pressure is the static pressure between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

^(a) Field supplied BK160 x 1.4375 in. fan sheave, 1VP50 x 1.125 in. motor sheave, and Bx57 belt.

^(b) 5-hp Standard Motor and High Static Drive Accessory.



Performance Data

Table 21. Evaporator fan performance - 20 ton unit with gas heat (model number digit 10 = L, M, X, Y) - GDK240 - horizontal airflow

Available External Static Pressure (Inches of Water Gauge)																					
cfm	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00		
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
	5-hp Standard Motor, Low Static Drive Accessory											5-hp Standard Motor Drive									
6400	631	1.63	664	1.78	697	1.95	729	2.14	759	2.32	787	2.49	815	2.66	841	2.83	866	3.00	890	3.18	
7200	702	2.28	732	2.44	761	2.62	790	2.83	818	3.04	845	3.24	871	3.43	896	3.62	920	3.82	943	4.01	
8000	774	3.08	801	3.26	827	3.45	853	3.66	879	3.89	905	4.13	929	4.35	953	4.57	976	4.78	998	5.00	
8800	846	4.05	871	4.26	894	4.45	919	4.68	942	4.90	966	5.17	989	5.43	1012	5.68	1034	5.92	1055	6.15	
9600	918 ^(a)	5.22	941 ^(a)	5.44	963 ^(a)	5.66	985 ^(a)	5.88	1007	6.13	1029	6.38	1051	6.67	1072	6.95	1093	7.24	1114	7.50	
	7.5 - hp Oversized Motor, Drive																				
Available External Static Pressure (Inches of Water Gauge)																					
cfm	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 Standard Motor Drive													5-hp Standard Motor, High Static Drive Accessory							
6400	914	3.36	939	3.57	962	3.77	985	3.97	1007	4.18	1029	4.38	1050	4.59	1071	4.79	1091	5.00	1111	5.21	
7200	966	4.20	987	4.39	1008	4.59	1030	4.81	1052	5.04	1073	5.26	1093	5.49	1113	5.72	1133	5.95	1152	6.18	
8000	1020	5.21	1041	5.42	1061	5.64	1081	5.85	1101	6.07	1120	6.28	1139	6.52	1159	6.78	1178	7.03	1197	7.28	
8800	1076	6.39	1096	6.63	1116	6.87	1135	7.10	1154	7.33	—	—	—	—	—	—	—	—	—	—	
9600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	7.5 - hp Oversized Motor, Drive																				

Notes:

1. For Standard Evaporator Fan Speed (rpm), see table Motor and drive/fan speed.
2. For High Evaporator Fan Speed (rpm), see table Motor and drive/fan speed.
3. For Oversized Evaporator Fan Speed (rpm), see table Motor and drive/fan speed.
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, refer to accessory installer's guides ACC-SVN163*-EN and ACC-SVN169*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
8. Available External Static Pressure is the static pressure between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

^(a) Field supplied BK160 x 1.4375 in. fan sheave, 1VP50 x 1.125 in. motor sheave, and Bx57 belt.

Table 22. Evaporator fan performance - 20 ton unit with gas heat (model number digit 10 = H, Z) - GDK240 - horizontal airflow

Available External Static Pressure (Inches of Water Gauge)																				
cfm	0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.00	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	5-hp Standard Motor, Low Static Drive Accessory											5-hp Standard Motor Drive								
6400	—	—	—	—	—	—	—	—	—	—	787	2.49	815	2.66	841	2.83	866	3.00	890	3.18
7200	—	—	—	—	761	2.62	790	2.83	818	3.04	845	3.24	871	3.43	896	3.62	920	3.82	943	4.01
8000	774	3.08	801	3.26	827	3.45	853	3.66	879	3.89	905	4.13	929	4.35	953	4.57	976	4.78	998	5.00
8800	846	4.05	871	4.26	894	4.45	919	4.68	942	4.90	966	5.17	989	5.43	1012	5.68	1034	5.92	1055	6.15
9600	918 ^(a)	5.22	941 ^(a)	5.44	963 ^(a)	5.66	985 ^(a)	5.88	1007	6.13	1029	6.38	1051	6.67	1072	6.95	1093	7.24	1114	7.50
	7.5 - hp Oversized Motor, Drive																			
Available External Static Pressure (Inches of Water Gauge)																				
cfm	1.1		1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.00	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	5-hp Standard Motor Drive											5-hp Standard Motor, High Static Drive Accessory								
6400	914	3.36	939	3.57	962	3.77	985	3.97	1007	4.18	1029	4.38	1050	4.59	1071	4.79	1091	5.00	1111	5.21
7200	966	4.20	987	4.39	1008	4.59	1030	4.81	1052	5.04	1073	5.26	1093	5.49	1113	5.72	1133	5.95	1152	6.18
8000	1020	5.21	1041	5.42	1061	5.64	1081	5.85	1101	6.07	1120	6.28	1139	6.52	1159	6.78	1178	7.03	1197	7.28
8800	1076	6.39	1096	6.63	1116	6.87	1135	7.10	1154	7.33	—	—	—	—	—	—	—	—	—	—
9600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	7.5 - hp Oversized Motor, Drive																			

Notes:

1. For Standard Evaporator Fan Speed (rpm), see table Motor and drive/fan speed.
 2. For High Evaporator Fan Speed (rpm), see table Motor and drive/fan speed.
 3. For Oversized Evaporator Fan Speed (rpm), see table Motor and drive/fan speed.
 4. Fan motor heat (MBh) = 3.15 x Fan bhp.
 5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
 6. For all non-standard sheave combinations, refer to accessory installer's guides ACC-SVN163*-EN and ACC-SVN169*-EN.
 7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
 8. Available External Static Pressure is the static pressure between the return duct and the supply duct plus the static pressure drop caused by accessories and options.
- ^(a) Field supplied BK160 x 1.4375 in. fan sheave, 1VP50 x 1.125 in. motor sheave, and Bx57 belt.



Performance Data

Table 23. Evaporator fan performance - 20 ton cooling only units (model number digit 8 = 3, 4, W) - EDK240 - downflow airflow

Available External Static Pressure (Inches of Water)																				
cfm	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	5-hp Standard Motor, Low Static Drive Accessory														5-hp Standard Motor Drive					
6400	—	—	—	—	571	1.28	611	1.43	647	1.58	679	1.73	709	1.87	738	2.01	767	2.16	797	2.31
7200	—	—	570	1.48	612	1.67	650	1.85	685	2.03	718	2.20	747	2.37	775	2.53	801	2.69	827	2.84
8000	569	1.69	614	1.92	653	2.14	690	2.35	724	2.55	756	2.75	786	2.94	813	3.13	839	3.31	864	3.49
8800	617	2.19	658	2.45	697	2.70	731	2.93	764	3.16	795	3.39	825	3.60	852	3.81	878	4.02	902	4.23
9600	665	2.79	704	3.07	740	3.35	774	3.61	805	3.86	835	4.12	864	4.36	891	4.60	917	4.83	942 ^(a) (b)	5.06
Available External Static Pressure (Inches of Water)																				
cfm	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 Standard Motor Drive										5-hp Standard Motor, High Static Drive Accessory									
6400	826	2.46	853	2.61	879	2.76	906	2.95	932	3.14	958	3.33	982	3.53	1006	3.72	1029	3.92	1052	4.12
7200	853	3.00	880	3.18	906	3.35	931	3.52	955	3.68	978	3.84	1002	4.04	1026	4.26	1049	4.48	1072	4.69
8000	888	3.67	911	3.84	933	4.01	958	4.20	982	4.39	1005	4.58	1028	4.77	1050	4.95	1071	5.14	1092	5.31
8800	926	4.43	948	4.63	970	4.82	991	5.01	1012	5.20	1032	5.39	1055	5.61	1077	5.82	1098	6.03	1119	6.23
9600	964 ^(c)	5.29	987 ^(c)	5.51	1008	5.73	1029	5.95	1049	6.16	1069	6.37	1088	6.57	1106	6.78	1125	6.99	1146	7.22
	7.5-hp Oversized Motor and Drive																			

Notes:

1. For Standard Evaporator Fan Speed (rpm), see table Motor and drive/fan speed.
2. For High Evaporator Fan Speed (rpm), see table Motor and drive/fan speed.
3. For Oversized Evaporator Fan Speed (rpm), see table Motor and drive/fan speed.
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, refer to accessory installer's guides ACC-SVN163*-EN and ACC-SVN169*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
8. Available External Static Pressure is the static pressure between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

^(a) 7.5-hp Oversized Motor and Drive.

^(b) Field supplied BK160 x 1.4375 in. fan sheave, 1VP50 x 1.125 in. motor sheave, and BX57 belt.

^(c) 7.5-hp Oversized Motor and Drive.

Table 24. Evaporator fan performance - 20 ton cooling only units (model number digit 8 = 3, 4, W) - EDK240 - horizontal airflow

Available External Static Pressure (Inches of Water)																				
cfm	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	5-hp Standard Motor, Low Static Drive Accessory										5-hp Standard Motor Drive									
6400	—	—	579	1.34	620	1.51	653	1.67	685	1.81	719	1.99	754	2.19	786	2.39	817	2.59	847	2.78
7200	584	1.56	630	1.79	669	2.00	703	2.19	733	2.36	761	2.53	789	2.70	821	2.93	852	3.16	881	3.38
8000	637	2.07	683	2.35	719	2.59	753	2.81	783	3.02	810	3.21	836	3.39	860	3.57	888	3.80	916	4.05
8800	691	2.69	736	3.01	771	3.28	803	3.53	834	3.78	860	4.00	885	4.21	909	4.42	931	4.62	953	4.82
9600	746	3.42	787	3.78	823	4.09	854	4.38	883	4.65	911	4.92	935 ^(a)	5.16	958 ^(a)	5.40	980 ^(a)	5.62	1001	5.84
											7.5-hp Oversized Motor and Drive									
Available External Static Pressure (Inches of Water)																				
cfm	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 Standard Motor Drive										5-hp Standard Motor, High Static Drive Accessory									
6400	875	2.98	902	3.17	928	3.37	952	3.58	977	3.78	1000	3.98	1023	4.19	1045	4.39	1066	4.60	1087	4.80
7200	909	3.60	935	3.82	961	4.04	986	4.26	1010	4.47	1033	4.70	1056	4.93	1078	5.16	1099	5.39	1120	5.62
8000	944	4.30	970	4.55	995	4.80	1020	5.04	1044	5.29	1067	5.53	1089	5.77	1111	6.01	1133	6.25	1153	6.51
8800	979	5.08	1005	5.36	1030	5.64	1055	5.92	1078	6.19	1101	6.46	1123	6.73	1145	7.00	1166	7.26	—	—
9600	1022	6.06	1042	6.28	1066	6.57	1090	6.88	1113	7.18	1136	7.48	—	—	—	—	—	—	—	—
											7.5-hp Oversized Motor and Drive									

Notes:

- For Standard Evaporator Fan Speed (rpm), see table Motor and drive/fan speed.
 - For High Evaporator Fan Speed (rpm), see table Motor and drive/fan speed.
 - For Oversized Evaporator Fan Speed (rpm), see table Motor and drive/fan speed.
 - Fan motor heat (MBh) = 3.15 x Fan bhp.
 - Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
 - For all non-standard sheave combinations, refer to accessory installer's guides ACC-SVN163*-EN and ACC-SVN169*-EN.
 - 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.
 - Available External Static Pressure is the static pressure between the return duct and the supply duct plus the static pressure drop caused by accessories and options.
- ^(a) Field supplied BK160 x 1.4375 in. fan sheave, 1VP50 x 1.125 in. motor sheave, and BX57 belt.



Performance Data

Table 25. Evaporator fan performance - 25 ton unit with gas heat - GDK300 - downflow airflow

Available External Static Pressure (Inches of Water)																				
cfm	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
7.5-hp Standard Motor, Field Supplied Drive ^(a)												7.5-hp Standard Motor, Low Static Drive Accessory								
7500	716	2.38	748	2.59	777	2.78	804	2.97	830	3.16	854	3.34	878	3.51	903	3.71	928	3.91	953	4.11
8000	759	2.86	790	3.08	818	3.29	844	3.50	869	3.70	893	3.89	915	4.08	937	4.27	961	4.48	985	4.70
8500	803	3.40	832	3.64	859	3.86	885	4.08	909	4.30	931	4.51	953	4.71	974	4.91	995	5.11	1017	5.34
9000	846	4.01	874	4.26	900	4.50	925	4.74	948	4.97	971	5.19	992	5.41	1012	5.63	1032	5.84	1052	6.05
9500	890	4.68	917	4.95	942	5.21	966	5.46	989	5.70	1010	5.94	1031	6.18	1051	6.41	1070	6.64	1089	6.86
10000	934	5.43	960	5.71	984	5.99	1007	6.25	1029	6.51	1050	6.77	1070	7.02	1090	7.27	1109	7.51	1127	7.75
10500	978	6.25	1003	6.55	1026	6.84	1049	7.12	1070	7.40	1091 ^(b)	7.67	1110	7.94	1129	8.20	1148	8.46	1166	8.71
11000	1022	7.16	1046	7.47	1069 ^(b)	7.78	1090 ^(b)	8.08	1111	8.37	1131	8.66	1151	8.94	1169	9.21	1187	9.49	1204	9.76
10-hp Oversized Motor and Drive																				
Available External Static Pressure (Inches of Water)																				
cfm	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
7.5-hp Standard Motor Drive												10-hp Oversized Motor and Drive								
7500	976	4.31	999	4.50	1021	4.69	1042	4.89	1063	5.09	1083	5.30	1103	5.50	1122	5.70	1141	5.90	1159	6.10
8000	1008	4.91	1030	5.12	1052	5.32	1073	5.53	1093	5.73	1113	5.95	1132	6.17	1151	6.38	1170	6.60	1188	6.82
8500	1040	5.57	1062	5.79	1083	6.02	1104	6.24	1124	6.46	1143	6.67	1162	6.89	1181	7.12	1200	7.35	1218	7.58
9000	1072	6.28	1094	6.53	1115	6.77	1135	7.01	1155	7.24	1174	7.48	1193	7.71	1212	7.94	1230	8.16	1248	8.41
9500	1107	7.08	1127	7.32	1147	7.58	1167	7.84	1187	8.09	1206	8.34	1225	8.59	1243	8.84	1261	9.08	1278	9.32
10000	1145	7.99	1163	8.22	1180	8.46	1200	8.73	1219	9.00	1238	9.27	1256	9.54	1274	9.80	—	—	—	—
10500	1183	8.96	1200	9.21	1217	9.46	1233	9.70	1252	9.98	—	—	—	—	—	—	—	—	—	—
11000	1222	10.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10-hp Oversized Motor and Drive																				

Notes:

- For Standard Evaporator Fan Speed (rpm), see table Standard motor and drive/fan speed.
- For High Evaporator Fan Speed (rpm), see table Standard motor and high static drive accessory sheave / fan speed.
- For Oversized Evaporator Fan Speed (rpm), see table Oversized motor and drive/fan speed.
- Fan motor heat (MBh) = 3.15 x Fan bhp.
- Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
- For all non-standard sheave combinations, refer to accessory installer's guides ACC-SVN163*-EN and ACC-SVN169*-EN.
- 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.
- Available External Static Pressure is the static pressure between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

^(a) Field supplied BK160 x 1.4375" fan sheave, 1VP44 x 1.125" motor sheave, and BX60 belt.

^(b) Field supplied BK120 x 1.4375" fan sheave, 1VP75 x 1.375" motor sheave, and BX55 belt.

Table 26. Evaporator fan performance - 25 ton unit with gas heat - GDK300 - horizontal airflow

Available External Static Pressure (Inches of Water)																				
cfm	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
7.5-hp Standard Motor, Field Supplied Drive ^(a)											7.5-hp Standard Motor, Low Static Drive Accessory									
7500	729	2.56	757	2.73	786	2.92	813	3.12	841	3.34	867	3.55	892	3.76	917	3.96	941	4.16	964	4.36
8000	774	3.08	801	3.26	827	3.45	853	3.66	879	3.89	905	4.13	929	4.35	953	4.57	976	4.78	998	5.00
8500	819	3.67	844	3.86	869	4.05	894	4.28	918	4.50	943	4.76	967	5.01	990	5.24	1012	5.47	1033	5.70
9000	864	4.33	888	4.54	912	4.74	935	4.96	958	5.19	982	5.45	1005	5.72	1027	5.98	1048	6.23	1069	6.47
9500	909	5.06	932	5.29	955	5.50	977	5.72	999	5.97	1021	6.21	1043	6.50	1065	6.79	1086	7.06	1106	7.32
10000	954	5.88	977	6.12	998	6.34	1019	6.56	1040	6.82	1061	7.08	1082	7.35	1103	7.66	1123	7.96	1143	8.24
10500	1000	6.78	1021	7.03	1042	7.27	1062	7.50	1082 ^(b)	7.76	1102	8.03	1122	8.30	1142	8.60	1162	8.92	1181	9.23
11000	1045 ^(b)	7.77	1066 ^(b)	8.03	1086 ^(b)	8.28	1105	8.53	1124	8.78	1144	9.07	1162	9.35	1181	9.63	1200	9.96	1219	10.3
10 - hp Oversized Motor, Drive																				
Available External Static Pressure (Inches of Water)																				
cfm	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
7.5-hp Standard Motor Drive																				
7500	986	4.56	1007	4.76	1028	4.96	1048	5.16	1069	5.39	1090	5.63	1110	5.86	1130	6.10	1150	6.34	1169	6.58
8000	1020	5.21	1041	5.42	1061	5.64	1081	5.85	1101	6.07	1120	6.28	1139	6.52	1159	6.78	1178	7.03	1197	7.28
8500	1054	5.93	1075	6.16	1095	6.38	1115	6.61	1134	6.84	1152	7.07	1171	7.29	1188	7.52	1207	7.77	1225	8.04
9000	1090	6.71	1110	6.96	1130	7.20	1149	7.44	1167	7.68	1186	7.92	1204	8.16	1221	8.40	1239	8.64	1255	8.88
9500	1126	7.57	1145	7.83	1165	8.09	1183	8.34	1202	8.60	1220	8.85	1237	9.10	1255	9.35	1272	9.61	1288	9.87
10000	1163	8.52	1182	8.78	1200	9.05	1218	9.32	1237	9.59	1254	9.86	—	—	—	—	—	—	—	—
10500	1200	9.53	1219	9.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10 - hp Oversized Motor, Drive																				

Notes:

- For Standard Evaporator Fan Speed (rpm), see table Standard motor and drive/fan speed.
- For High Evaporator Fan Speed (rpm), see table Standard motor and high static drive accessory sheave / fan speed.
- For Oversized Evaporator Fan Speed (rpm), see table Oversized motor and drive/fan speed.
- Fan motor heat (MBh) = 3.15 x Fan bhp.
- Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
- For all non-standard sheave combinations, refer to accessory installer's guides ACC-SVN163*-EN and ACC-SVN169*-EN.
- 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.
- Available External Static Pressure is the static pressure between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

^(a) Field supplied BK160 x 1.4375" fan sheave, 1VP44 x 1.125" motor sheave, and Bx60 belt.

^(b) Field supplied BK120 x 1.4375" fan sheave, 1VP75 x 1.375" motor sheave, and BX55 belt.



Performance Data

Table 27. Evaporator fan performance - 25 ton cooling only unit - EDK300 (model number digit 8 = 3, 4, W) - downflow airflow

Available External Static Pressure (Inches of Water)																				
cfm	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
7.5-hp Standard Motor, Field Supplied Drive ^(a)											7.5-hp Standard Motor, Low Static Drive Accessory									
7500	—	—	586	1.63	627	1.83	665	2.03	700	2.22	732	2.39	762	2.57	789	2.74	816	2.91	841	3.07
8000	—	—	614	1.92	653	2.14	690	2.35	724	2.55	756	2.75	786	2.94	813	3.13	839	3.31	864	3.49
8500	599	1.99	642	2.24	680	2.48	716	2.70	749	2.92	781	3.14	810	3.34	838	3.54	863	3.74	888	3.94
9000	629	2.33	670	2.60	707	2.85	742	3.09	775	3.33	805	3.56	834	3.79	862	4.00	888	4.21	912	4.43
9500	659	2.71	698	2.99	735	3.26	769	3.52	800	3.77	830	4.02	859	4.26	886	4.50	912	4.73	937	4.95
10000	689	3.13	727	3.42	763	3.72	796	3.99	826	4.25	856	4.52	884	4.78	911	5.03	936	5.28	961	5.52
10500	720	3.59	756	3.90	791	4.21	823	4.50	853	4.78	881	5.06	909	5.34	935	5.61	961	5.87	985	6.13
11000	750	4.10	786	4.42	819	4.75	850	5.06	880	5.36	908	5.65	934	5.94	960	6.23	985	6.51	1009	6.79
7.5-hp Standard Motor Drive																				
Available External Static Pressure (Inches of Water)																				
cfm	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
7.5-hp Standard Motor Drive											7.5-hp Standard Motor, High Static Drive Accessory									
7500	865	3.23	890	3.41	916	3.59	941	3.77	965	3.94	988	4.11	1011	4.28	1034	4.47	1057	4.69	1079	4.92
8000	888	3.67	911	3.84	933	4.01	958	4.20	982	4.39	1005	4.58	1028	4.77	1050	4.95	1071	5.14	1092	5.31
8500	911	4.13	934	4.32	956	4.50	977	4.69	999	4.87	1022	5.08	1045	5.28	1067	5.48	1088	5.68	1109	5.88
9000	935	4.63	958	4.84	979	5.04	1001	5.23	1021	5.43	1041	5.62	1062	5.83	1084	6.04	1105	6.26	1126	6.47
9500	960	5.17	982	5.39	1003	5.61	1024	5.82	1044	6.03	1064	6.24	1083	6.44	1102	6.64	1122	6.86	1143	7.09
10000	984	5.75	1006	5.99	1027	6.22	1048	6.45	1068	6.68	1087	6.90	1106	7.12	1125	7.34	1143	7.55	1161	7.76
10500	1008	6.38	1031	6.63	1052	6.88	1072	7.12	1092	7.36	1111	7.60	1130	7.84	1148	8.07	1166	8.30	1184	8.53
11000	1032	7.06	1055	7.32	1076 ^(b)	7.58	1096 ^(b)	7.84	1116	8.10	1135	8.35	1154	8.60	1172	8.85	1190	9.10	1207	9.34
10 - hp Oversized Motor, Drive																				

Notes:

1. For Standard Evaporator Fan Speed (rpm), see table Standard motor and drive/fan speed.
2. For High Evaporator Fan Speed (rpm), see table Standard motor and high static drive accessory sheave / fan speed.
3. For Oversized Evaporator Fan Speed (rpm), see table Oversized motor and drive/fan speed.
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, refer to accessory installer's guides ACC-SVN163*-EN and ACC-SVN169*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
8. Available External Static Pressure is the static pressure between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

^(a) Field supplied BK160 x 1.4375" fan sheave, 1VP44 x 1.125" motor sheave, and Bx60 belt.

^(b) Field supplied BK120 x 1.4375" fan sheave, 1VP75 x 1.375" motor sheave, and BX55 belt.

Table 28. Evaporator fan performance - 25 ton cooling only unit (model number digit 8 = 3, 4, W) - EDK300 - horizontal airflow

Available External Static Pressure (Inches of Water)																				
cfm	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	7.5-hp Standard Motor, Field Supplied Drive ^(a)								7.5-hp Standard Motor, Low Static Drive Accessory											
7500	604	1.74	650	1.99	688	2.21	722	2.41	752	2.59	780	2.77	806	2.94	835	3.15	865	3.39	894	3.62
8000	637	2.07	683	2.35	719	2.59	753	2.81	783	3.02	810	3.21	836	3.39	860	3.57	888	3.80	916	4.05
8500	671	2.44	716	2.75	751	3.01	784	3.25	815	3.48	841	3.69	866	3.89	890	4.09	913	4.28	939	4.51
9000	705	2.86	748	3.19	784	3.47	816	3.73	846	3.99	873	4.22	897	4.44	921	4.65	943	4.86	965	5.06
9500	739	3.32	781	3.68	816	3.98	847	4.27	877	4.54	905	4.80	929	5.04	952	5.27	974	5.49	995	5.71
10000	773	3.83	814	4.21	849	4.55	880	4.85	908	5.14	935	5.42	961	5.69	983	5.94	1005	6.17	1026	6.41
10500	807	4.39	847	4.79	882	5.17	912	5.49	940	5.79	966	6.09	992	6.39	1015	6.66	1036	6.92	1057 ^(b)	7.17
11000	842	5.01	880	5.43	915	5.83	945	6.18	972	6.51	998	6.83	1022	7.14	1046	7.44	1068 ^(c)	7.72	1088 ^(c)	7.98
	7.5-hp Standard Motor Drive																			
Available External Static Pressure (Inches of Water)																				
cfm	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
	7.5-hp Standard Motor Drive										7.5-hp Standard Motor, High Static Drive Accessory									
7500	922	3.86	948	4.09	974	4.32	999	4.54	1023	4.77	1046	4.99	1068	5.23	1090	5.46	1111	5.70	1132	5.94
8000	944	4.30	970	4.55	995	4.80	1020	5.04	1044	5.29	1067	5.53	1089	5.77	1111	6.01	1133	6.25	1153	6.51
8500	966	4.78	992	5.05	1017	5.31	1042	5.58	1065	5.84	1088	6.10	1110	6.36	1132	6.62	1153	6.87	1174	7.13
9000	988	5.29	1014	5.58	1039	5.87	1063	6.15	1087	6.43	1110	6.71	1132	6.98	1153	7.26	1175	7.53	1195	7.81
9500	1016	5.92	1037	6.15	1062	6.45	1086	6.75	1109	7.05	1131	7.35	1154	7.64	1175	7.94	1196	8.23	1216	8.52
10000	1046	6.64	1066	6.87	1085	7.09	1108	7.40	1131	7.71	1154	8.03	1175	8.34	1197	8.66	1218	8.97	1238	9.28
10500	1077 ^(d)	7.41	1096	7.66	1115	7.89	1133	8.13	1154	8.42	1176	8.75	1198	9.08	1219	9.41	1239	9.74	—	—
11000	1107	8.25	1126	8.51	1145	8.76	1163	9.01	1181	9.26	1198	9.51	1220	9.87	—	—	—	—	—	—
	10 - hp Oversized Motor, Drive																			

Notes:

- For Standard Evaporator Fan Speed (rpm), see table Standard motor and drive/fan speed.
- For High Evaporator Fan Speed (rpm), see table Standard motor and high static drive accessory sheave / fan speed.
- For Oversized Evaporator Fan Speed (rpm), see table Oversized motor and drive/fan speed.
- Fan motor heat (MBh) = 3.15 x Fan bhp.
- Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
- For all non-standard sheave combinations, refer to accessory installer's guides ACC-SVN163*-EN and ACC-SVN169*-EN.
- 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.
- Available External Static Pressure is the static pressure between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

^(a) Field supplied BK160 x 1.4375" fan sheave, 1VP44 x 1.125" motor sheave, and Bx60 belt.

^(b) 7.5-hp Standard Motor and High Static Drive Accessory.

^(c) Field supplied BK120 x 1.4375" fan sheave, 1VP75 x 1.375" motor sheave, and BX55 belt.

^(d) 7.5-hp Standard Motor and High Static Drive Accessory.



Performance Data

Table 29. Standard motor and drive/fan speed (rpm)

Tons	Unit Model Number	6 Turns Open	5 Turns Open	4 Turns Open	3 Turns Open	2 Turns Open	1 Turn Open	Closed
15	E/G*K180A3,4,W	653	669	746	793	839	886	N/A
17.5	E/G*K210A3,4,W	721	772	824	875	927	978	N/A
20	G*K240A3,4,W	824	875	927	978	1030	1081	N/A
	E*K240A3,4,W	721	772	824	875	927	978	N/A
25	G*K300A3,4,W	995	1048	1100	1153	1205	1257	N/A
	E*K300A3,4,W	886	912	957	1003	1048	1094	N/A

Note: Factory set at 3 turns open.

Table 30. Standard motor and low static drive accessory sheave/fan speed (rpm)

Tons	Unit Model Number	6 Turns Open	5 Turns Open	4 Turns Open	3 Turns Open	2 Turns Open	1 Turn Open	Closed
15	E/G*K180A3,4,W	488	523	558	592	627	662	N/A
17.5	E/G*K210A3,4,W	560	596	632	668	703	739	N/A
20	G*K240A3,4,W	627	672	717	762	806	851	N/A
	E*K240A3,4,W	538	574	609	645	681	717	N/A
25	G*K300A3,4,W	838	891	943	995	1048	1100	N/A
	E*K300A3,4,W	729	775	821	866	912	957	N/A

Table 31. Standard motor and high static drive accessory sheave/fan speed (rpm)

Tons	Unit Model Number	6 Turns Open	5 Turns Open	4 Turns Open	3 Turns Open	2 Turns Open	1 Turn Open	Closed
15	E/G*K180A3,4,W	886	932	979	1026	1072	1119	N/A
17.5	E/G*K210A3,4,W	978	1030	1081	1133	1184	1236	N/A
20	E/G*K240A3,4,W	863	918	974	1029	1085	1141	N/A
25	E*K300A3,4,W	995	1048	1100	1153	1205	1257	N/A

Table 32. Oversized motor and drive/fan speed (rpm)

Tons	Unit Model Number	6 Turns Open	5 Turns Open	4 Turns Open	3 Turns Open	2 Turns Open	1 Turn Open	Closed
15	E/G*K180A3,4,W	847	908	968	1029	1089	1150	N/A
17.5	E/G*K210A3,4,W	995	1048	1100	1153	1205	1257	N/A
20	E/G*K240A3,4,W	995	1048	1100	1153	1205	1257	N/A
25	E/G*K300A3,4,W	1108	1151	1194	1237	1280	1323	N/A

Table 33. Static pressure drop through accessories (inches water column)

Tons	Unit Model Number	cfm	2 in. Standard Filters	2-in. MERV 13 Filters	Standard Economizer with OA/RA Dampers ^(a)		Low Leak Economizer with OA/RA Dampers ^(a)		Electric Heater Accessory (kW) ^(b)			
					100% OA	100% RA	100% OA	100% RA	18	36	54	72
15	E/G*K180A (Downflow)	4800	0.03	0.10	0.15	0.04	0.19	0.22	0.01	0.01	—	—
		6000	0.04	0.13	0.20	0.04	0.31	0.34	0.02	0.02	—	—
		7200	0.06	0.17	0.27	0.04	0.45	0.48	0.03	0.03	—	—
	E/G*K180A (Horizontal)	4800	0.03	0.10	0.15	0.04	0.19	0.22	0.01	0.01	—	—
		6000	0.04	0.13	0.2	0.04	0.31	0.34	0.02	0.02	—	—
		7200	0.06	0.17	0.27	0.04	0.45	0.48	0.04	0.04	—	—
17.5	E/G*K210A (Downflow)	5600	0.04	0.12	0.18	0.04	0.27	0.29	—	0.03	0.04	0.04
		7000	0.06	0.16	0.26	0.04	0.42	0.46	—	0.05	0.05	0.06
		8400	0.08	0.21	0.35	0.06	0.61	0.66	—	0.06	0.07	0.09
	E/G*K210A (Horizontal)	5600	0.04	0.12	0.18	0.04	0.27	0.29	—	0.03	0.04	0.04
		7000	0.06	0.16	0.26	0.04	0.42	0.46	—	0.05	0.06	0.07
		8400	0.08	0.21	0.35	0.06	0.61	0.66	—	0.07	0.09	0.11

Table 33. Static pressure drop through accessories (inches water column) (continued)

Tons	Unit Model Number	cfm	2 in. Standard Filters	2-in. MERV 13 Filters	Standard Economizer with OA/RA Dampers ^(a)		Low Leak Economizer with OA/RA Dampers ^(a)		Electric Heater Accessory (kW) ^(b)			
					100% OA	100% RA	100% OA	100% RA	18	36	54	72
20	E/G*K240A (Downflow)	6400	0.05	0.14	0.22	0.04	0.35	0.38	—	0.04	0.05	0.05
		8000	0.07	0.20	0.32	0.05	0.55	0.60	—	0.05	0.07	0.08
		9600	0.09	0.26	0.44	0.07	0.81	0.86	—	0.06	0.08	0.11
	E/G*K240A (Horizontal)	6400	0.05	0.14	0.22	0.04	0.35	0.38	—	0.04	0.05	0.06
		8000	0.07	0.20	0.32	0.05	0.55	0.60	—	0.07	0.08	0.10
		9600	0.09	0.26	0.44	0.07	0.81	0.86	—	0.09	0.11	0.14
25	E/G*K300A (Downflow)	7000	0.06	0.16	0.26	0.04	0.42	0.46	—	0.05	0.05	0.06
		9000	0.08	0.23	0.40	0.07	0.71	0.75	—	0.06	0.08	0.10
		11000	0.12	0.32	0.57	0.10	1.07	1.12	—	0.07	0.10	0.12
	E/G*K300A (Horizontal)	7000	0.06	0.16	0.26	0.04	0.42	0.46	—	0.05	0.06	0.07
		9000	0.08	0.23	0.40	0.07	0.71	0.75	—	0.08	0.10	0.12
		11000	0.12	0.32	0.57	0.10	1.07	1.12	—	0.13	0.18	0.23

^(a) OA = Outside Air and RA = Return Air.

^(b) Nominal kW ratings at 240, 480, 600 volts.

Table 34. Gas fired heating capacities

Tons	Unit Model Number	Heating Input (MBh) ^(a)	Heating Output (MBh) ^(a)	Air Temp Rise (°F)
15	G*K180A(3,4,W)E(L or X)	240/168	194/136	15-45
	G*K180A(3,4,W)E(M or Y)	320/224	259/181	20-50
	G*K180A(3,4,W)E(H or Z)	350/245	284/198	25-55
17.5 ^(b)	G*K210A(3,4,W)E(L or X)	240/168	194/136	15-45
	G*K210A(3,4,W)E(M or Y)	320/224	259/181	20-50
	G*K210A(3,4,W)E(H or Z)- Downflow	380/266	308/215	20-50
	G*K210A(3,4,W)E(H or Z)- Horizontal	350/245	284/198	25-55
20	G*K240A(3,4,W)E(L or X)	240/168	194/136	15-45
	G*K240A(3,4,W)E(M or Y)	320/224	259/181	20-50
	G*K240A(3,4,W)E(H or Z)	380/266	308/215	20-50
25	G*K300A(3,4,W)E(L or X)	240/168	194/136	15-45
	G*K300A(3,4,W)E(M or Y)	320/224	259/181	20-50
	G*K300A(3,4,W)E(H or Z)	380/266	308/215	20-50

^(a) For two stage heaters (input or output), second stage is total heating capacity. Second stage/first stage.

^(b) For 17.5T high heat option, input rate will de-rate from downflow to horizontal.

Table 35. Auxiliary electric heat capacity

Tons	Unit Model Number	Total ^(a)		No. of Stages	Stage1		Stage 2	
		kW Input ^(b)	MBh Output		kW Input	MBh Output	kW Input	MBh Output
15	E*K180A3,4,W	18	61.5	1	18	61.5	—	—
		36	122.9	2	18	61.5	18	61.5
		54	184.4	2	36	122.9	18	61.5
17.5 to 25	E*K210A3,4,W E*K240A3,4,W E*K300A3,4,W	36	122.9	2	18	61.5	18	61.5
		54	184.4	2	36	122.9	18	61.5
		72	245.9	2	36	122.9	36	122.9

^(a) Heaters are rated at 240V, 480V, and 600V. For other than rated voltage, CAP = (voltage/rated voltage) x rated cap.

^(b) For all input/output categories, does not include fan power or heat.



Performance Data

Table 36. Electric heater voltage correction factors (applicable to auxiliary heat capacity)

Nominal Voltage	Distribution Voltage	Capacity Multiplier
240	208	0.75
	230	0.92
	240	1.00
480	380	0.63
	440	0.84
	460	0.94
	480	1.00
600	540	0.81
	575	0.92
	600	1.00

Table 37. Air temperature rise across electric heaters (°F)

kW	Stages	15 Tons 6000 cfm E*K180A	17.5 Tons 7000 cfm E*K210A	20 Tons 8000 cfm E*K240A	25 Tons 9000 cfm E*K300A
18	1	9.5	—	—	—
36	2	19.0	16.3	14.2	12.6
54	2	28.5	24.4	21.3	19.0
72	2	—	32.5	28.5	25.3

Notes:

1. For minimum design airflow, see airflow performance table for each unit.
2. To calculate temp rise at different airflow, use the following formula:
Temp. rise across Electric Heater = kW x 3414/1.08 x cfm.



Controls

Enhanced Connectivity

Symbio™ 700 for Foundation provides Standard Controller functionality which provides advanced troubleshooting, secure remote connectivity via Trane Connect, and access to the Symbio Service and Installation mobile app via a bluetooth connection.

The Standard controller functionality does not support:

- BACnet® MSTP/IP
- Modbus™ TCP/IP
- Air-Fi® communications
- Custom TGP2 programming
- XM30/XM332 expansion modules
- Upgrades to an Advanced Controller.

Secure Remote Connectivity with Trane Connect

The Symbio™ controller enables secure remote connectivity via Trane Connect® to Trane Intelligent Services and remote monitoring. Trane Connect provides anywhere/anytime access to monitor and manage with secure remote access and connectivity options through a multitude of platforms.

Serviceability

Symbio Service and Installation Mobile App

The Symbio™ Service and Installation mobile app is accessible through mobile devices (phones and tablets) via Bluetooth connectivity or via Trane Connect. The intuitive mobile app feels natural to technicians and operators. They will quickly be able to view equipment status and alarms, perform start-up tasks, change configurations, test the equipment's performance in specific modes—and much more. Free for download from App Store (Apple iOS) and Google Play (Android devices).

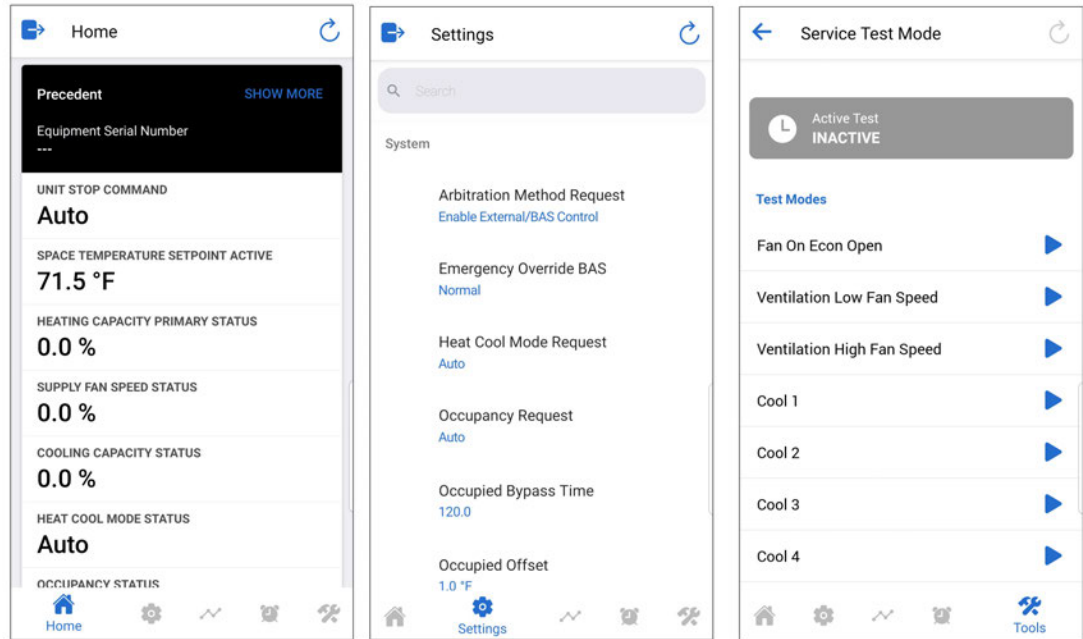
To download the Symbio Service and Installation Mobile App use the links below or scan the code with your mobile phone camera.

Apple download link (<https://apps.apple.com/us/app/symbio-service-installation/id1309310176>)

Google Play (Android) download link (<https://play.google.com/store/apps/details?id=com.trane.mobileservicetool>)

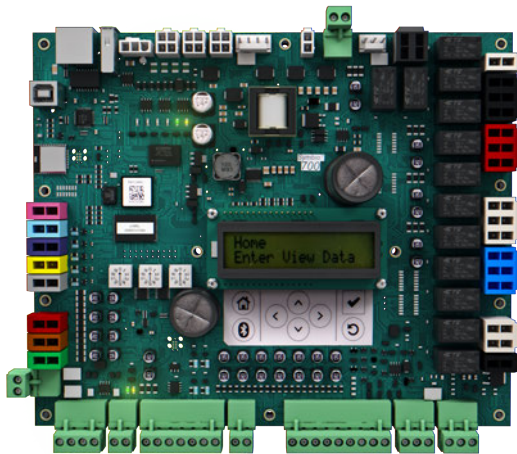
Figure 1. Scan code



Figure 2. Symbio service and installation mobile app


Onboard User Interface

An integrated onboard user interface that makes setup and continued operation easy. It provides real time operational performance, status, data, and alarms. It also allows the user to interact with, service, troubleshoot, and control their equipment without additional service software tools or when a mobile interface is not available.

Figure 3. Onboard user interface


Service Test Mode

Symbio™ 700 requires no special tools to run the unit through its paces. Simply navigate to the 'Service' section of the on-board user interface or the 'Tools' section of the Symbio Service and Installation Mobile App and enter the 'Service Test Mode' section. Here the unit can be placed in the desired operating condition for a pre-determined amount of time supporting troubleshooting efforts in the field. The Symbio 700 will return to normal control when the user exits test mode or when the pre-determined, user-selected Service Test time has expired.

Symbio 700 Controls with Upgradeable Software

Equipment and systems feature engineered, tested, and proven applications that meet industry energy standards and provide the flexibility to customize and update over the life of the equipment. Professional operational algorithms are embedded within the Symbio™ 700 controller at the factory. Symbio 700 standardizes each equipment unit to maintain standards for comfort, efficiency, and air quality, without additional field programming. Symbio 700 provides the flexibility over the life of the equipment to meet changing customer needs and/or industry standards.

Economizer Controls

Four options for economizer control are available: Dry Bulb Temperature, Comparative Enthalpy, Reference Enthalpy and Differential Dry Bulb Temperature.

Dry Bulb Temperature Control

The dry bulb system measures outdoor temperature comparing it to the economizer enable setpoint. If the outdoor temperature is below the economizer enable setpoint, the economizer will operate freely. This system is best suited for arid regions where the humidity levels of outside air would not be detrimental to building comfort and indoor air quality.

Comparative Enthalpy Control

The comparative enthalpy system measures the temperature and humidity of both return air and outside air to determine which source has lower enthalpy. This system allows true comparison of outdoor air and return air enthalpy by measurement of outdoor air and return air temperature and humidity.

Reference Enthalpy Control

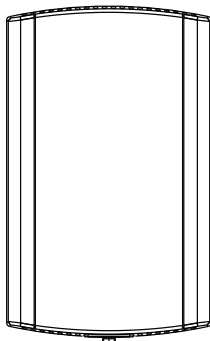
The reference enthalpy system compares outdoor air temperature and humidity to the economizer enthalpy enable setpoint. If outdoor air temperature and humidity are below the economizer enthalpy enable setpoint, the economizer will operate freely. This system provides more sophisticated control where outdoor air humidity levels may not be acceptable for building comfort and indoor air quality.

Differential Dry Bulb Temperature Control

The differential dry bulb system measures the temperature of both return air and outside air to determine when to economize. If outdoor air temperature is below the return air temperature minus a differential, the economizer will operate freely. This system is best suited for arid regions where the humidity levels of outside air would not be detrimental to building comfort and indoor air quality.

Zone Sensors

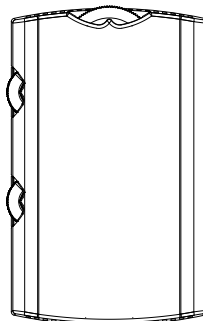
Zone Temperature Only



BAYSENS077

Provides temperature input only. Can be used as a secondary remote temperature input for thermostats.

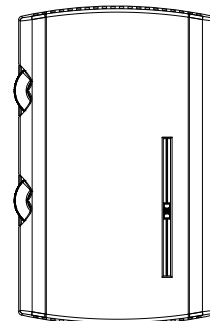
Manual Changeover



BAYSENS106

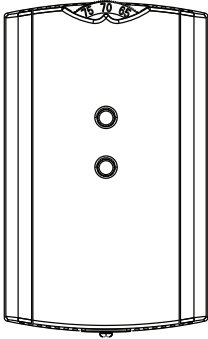
Heat, Cool or Off System Switch. Fan Auto or Off Switch. Single temperature setpoint thumbwheel.

Manual/Automatic Changeover

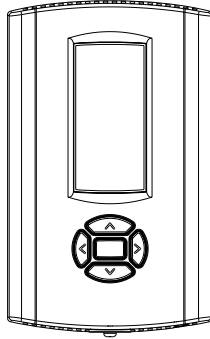


BAYSENS108

Auto, Heat, Cool or Off System Switch. Fan Auto or Off Switch. Dual temperature setpoint sliders

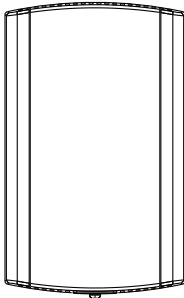
Integrated Comfort™ System

BAYSENS073 / BAYSENS074 / BAYSENS075

Sensor(s) available with optional temperature adjustment and override buttons to provide central control.

Wired Display Sensor

BAYSENS135

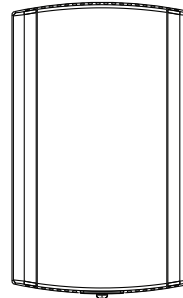
LCD display that provides heat, cool, auto, or off. Includes two temperature setpoints and a lockable setting with °F or °C indicators.

Air-Fi Wireless Communicating Zone Sensors

Wired CO₂ Sensor

X13790422010

FIACO2K001 wall mount CO₂ Sensor
FIACO2K002 duct mount CO₂ Sensor

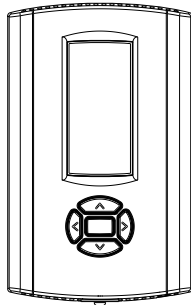
The maintenance-free carbon dioxide (CO₂) sensor is primarily used for demand control ventilation applications.

Wired Zone Temperature and Humidity Sensor

BAYSENS036

Measures temperature and relative humidity. Relative humidity input is used to control activation of dehumidification.

Thermostats

Digital Display Thermostat (3H/2C)

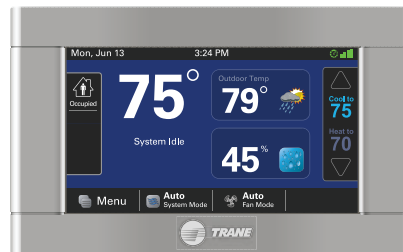


BAYSTAT155

Three Heat/Two Cool Auto changeover display thermostat.

Note: Not compatible with VAV units.

Pivot® Web Enabled Smart Thermostat (3H/2C)



BAYSTAT814

Our Pivot Smart Thermostat system is great for commercial buildings. With its intuitive touchscreen and customizable display, it is easy for occupants to use. The Pivot mobile app enables users to control multiple buildings remotely, making changes in seconds to all systems.

Note: Not compatible with VAV units.

Touchscreen Programmable Thermostat with Relative Humidity Sensor (3H/2C)



BAYSTAT152

Three Heat, Two Cool digital display thermostat with built-in humidity control. This thermostat combines both humidity and temperature into one.

Note: Not compatible with VAV units.

Indoor Fan

Indoor fan minimum percent follows compressor staging. See *Symbio™ 700 Controller with Foundation™ Packaged Rooftop Units 15 to 25 Tons Application Guide (ACC-APG004*-EN)*.



Electrical Data

Table 38. Unit wiring with cooling (no electric heat) or gas heat

TONS	Unit Model Number	Unit Operating Voltage Range	Standard Indoor Fan Motor		Oversized Indoor Fan Motor	
			Minimum Circuit Ampacity ^(a)	Maximum Fuse Size or Maximum Circuit Breaker	Minimum Circuit Ampacity	Maximum Fuse Size or Maximum Circuit Breaker
15	E/GDK180A3	208-230	70	100	74	100
	E/GDK180A4	460	35	45	36	50
	E/GDK180AW	575	28	40	30	40
17.5	E/GDK210A3	208-230	91	125	97	125
	E/GDK210A4	460	44	60	46	60
	E/GDK210AW	575	36	50	38	50
20	E/GDK240A3	208-230	104	125	110	150
	E/GDK240A4	460	51	70	54	70
	E/GDK240AW	575	39	50	41	50
25	E/GDK300A3	208-230	121	150	126	175
	E/GDK300A4	460	58	80	62	80
	E/GDK300AW	575	43	50	46	60

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

Table 39. Unit wiring with electric heat (single point connection)

Tons	Unit Model Number	Heater Model Number	Heater kW Rating	Control Stages	Standard Indoor Motor		Oversized Indoor Motor	
					MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker ^(a)
208/230 Volts Three Phase								
15	EDK180A3	BAYHTFE318A	13.5/18	1	70	100	74	100
		BAYHTFE336A	27/36	2	107/122	110/125	112/127	125/150
		BAYHTFE354A	40.5/54	2	154/143	175	159/148	175
17.5	EDK210A3	BAYHTFF336A	27/36	2	112/127	125/150	120/135	125/150
		BAYHTFF354A	40.5/54	2	159/148	175	167/156	175
		BAYHTFF372A	54/72	2	169/192	200/225	177/200	200/225
20	EDK240A3	BAYHTFF336A	27/36	2	112/127	125/150	120/135	150
		BAYHTFF354A	40.5/54	2	159/148	175	167/156	175
		BAYHTFF372A	54/72	2	169/192	200/225	177/200	200/225
25	EDK300A3	BAYHTFH336A	27/36	2	121/135	150	127/142	175
		BAYHTFH354A	40.5/54	2	167/156	175	174/163	175
		BAYHTFH372A	54/72	2	177/200	200/225	183/206	200/225
460 Volts Three Phase								
15	EDK180A4	BAYHTFE418A	18	1	35	45	37	50
		BAYHTFF436A	36	2	62	70	64	70
		BAYHTFF454A	54	2	72	90	75	90
17.5	EDK210A4	BAYHTFF436A	36	2	64	70	67	70
		BAYHTFF454A	54	2	75	90	78	90
		BAYHTFF472A	72	2	96	110	99	110

Table 39. Unit wiring with electric heat (single point connection) (continued)

Tons	Unit Model Number	Heater Model Number	Heater kW Rating	Control Stages	Standard Indoor Motor		Oversized Indoor Motor	
					MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker ^(a)
20	EDK240A4	BAYHTFG436A	36	2	64	70	67	70
		BAYHTFG454A	54	2	75	90	78	90
		BAYHTFG472A	72	2	96	110	99	110
25	EDK300A4	BAYHTFH436A	36	2	67	80	72	80
		BAYHTFH454A	54	2	78	90	82	90
		BAYHTFH472A	72	2	99	110	104	110
575 Volts Three Phase								
15	EDK180AW	BAYHTFEW18A	18	1	28	40	30	40
		BAYHTFFW36A	36	2	50	50	51	60
		BAYHTFFW54A	54	2	58	70	60	70
17.5	EDK210AW	BAYHTFFW36A	36	2	51	60	54	60
		BAYHTFFW54A	54	2	60	70	63	70
		BAYHTFFW72A	72	2	77	90	80	90
20	EDK240AW	BAYHTFHW36A	36	2	51	60	54	60
		BAYHTFHW54A	54	2	60	70	63	70
		BAYHTFHW72A	72	2	77	90	80	90
25	EDK300AW	BAYHTFHW36A	36	2	54	60	58	60
		BAYHTFHW54A	54	2	63	70	66	70
		BAYHTFHW72A	72	2	80	90	84	90

^(a) Values do not include power exhaust accessory.

Table 40. Electrical characteristics — compressor motor and condenser motor

Tons	Unit Model No.	Compressor Motors						Condenser Fan Motors				
		No.	Volts	Phase	rpm	Amps ^(a)		No.	Phase	hp	Amps ^(a)	
						RLA	LRA				FLA	LRA
15	E/GDK180A3	2	280–230	3	3500	31.5/16.5	255/156.4	2	3	0.5	2.3	8.4
	E/GDK180A4	2	460	3	3500	15.5/8.1	123/69	2	3	0.5	1.1	4.2
	E/GDK180AW	2	575	3	3500	12.4/6.6	93.7/47.8	2	3	0.5	1	3.6
17.5	E/GDK210A3	2	280–230	3	3500	37.1/21.8	255/156.5	2	3	1	4.3	19.4
	E/GDK210A4	2	460	3	3500	17.8/10.5	140/74.8	2	3	1	2.2	10.1
	E/GDK210AW	2	575	3	3500	14.9/7.9	107.6/47.8	2	3	1	1.8	8.0
20	E/GDK240A3	2	280–230	3	3500	44.5/25.9	270/178.5	2	3	1	4.3	19.4
	E/GDK240A4	2	460	3	3500	22.4/12.2	147/79.1	2	3	1	2.2	10.1
	E/GDK240AW	2	575	3	3500	15.8/9.9	109/65	2	3	1	1.8	8.0
25	E/GDK300A3	2	280–230	3	3500	49.6/30.1	335.5/190.7	2	3	1	4.3	19.4
	E/GDK300A4	2	460	3	3500	23.8/14.4	141/100.2	2	3	1	2.2	10.1
	E/GDK300AW	2	575	3	3500	16.7/10.9	109/65	2	3	1	1.8	8.0

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



Electrical Data

Table 41. Electrical characteristics — evaporator fan motor

Tons	Unit Model Number	Standard Evaporator Fan Motor						Oversized Evaporator Fan Motor					
		No.	Volts	Phase	hp	Amps		No.	Volts	Phase	hp	Amps	
						FLA	LRA					FLA	LRA
15	E/GDK180A3	1	208–230	3	3	9.4	64	1	208–230	3	5	13.4	95.6
	E/GDK180A4	1	460	3	3	4.6	37	1	460	3	5	6.3	52.4
	E/GDK180AW	1	575	3	3	3.7	35.3	1	575	3	5	5.1	46
17.5	E/GDK210A3	1	208–230	3	5	13.4	95.6	1	208–230	3	7.5	19.8	140.77
	E/GDK210A4	1	460	3	5	6.3	52.4	1	460	3	7.5	8.67	61.5
	E/GDK210AW	1	575	3	5	5.1	46	1	575	3	7.5	7.1	60.0
20	E/GDK240A3	1	208–230	3	5	13.4	95.6	1	208–230	3	7.5	19.8	140.77
	E/GDK240A4	1	460	3	5	6.3	52.4	1	460	3	7.5	8.67	61.5
	E/GDK240AW	1	575	3	5	5.1	46	1	575	3	7.5	7.1	60.0
25	E/GDK300A3	1	208–230	3	7.5	19.8	140.77	1	208–230	3	10	25.2	227.2
	E/GDK300A4	1	460	3	7.5	8.67	61.5	1	460	3	10	12.6	81
	E/GDK300AW	1	575	3	7.5	7.1	60.0	1	575	3	10	10.1	64.8

Table 42. Electrical characteristics — combustion blower motor (gas heat units)

Unit Model Number	Heat	Heating Stages	hp	rpm ^(a)	Volts	Phase	Amps	
							FLA	LRA
GDK180A,210A,240A,300A	Low	2	1/15	3350/2800	208–230	1	0.36	0.72
GDK180A,210A,240A,300A	Med/High	2	1/6	3300/2300	208–230	1	0.95	1.41

^(a) High/Low Speed.

Table 43. Electrical characteristics — power exhaust

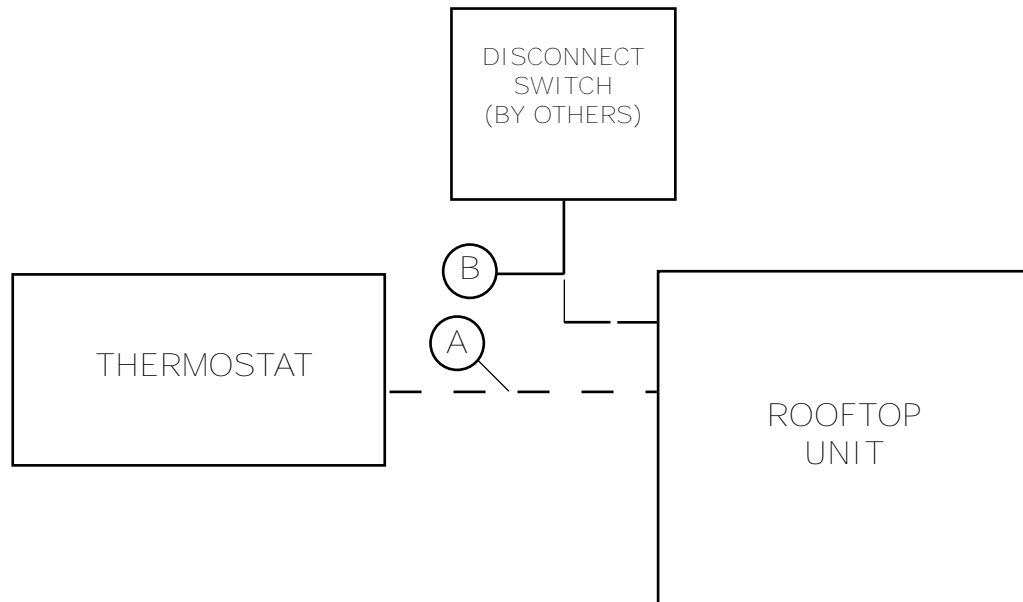
Tons	Volts	Phase	Hp	rpm	Amps	
					FLA	LRA
15 to 25	280-230	1	3/4	1040	5.7	13.6
	460	1	3/4	1040	3.3	7.2
	575	1	3/4	1040	2.3	5.8



Jobsite Connections

Table 44. Typical number of wires

Thermostats	
A	N/A
B	3 Power Wires + 1 Ground Wire (three phase)



Notes:

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

Dimensional Data

Figure 4. Cooling with optional electrical heat — overview (gas/electric)

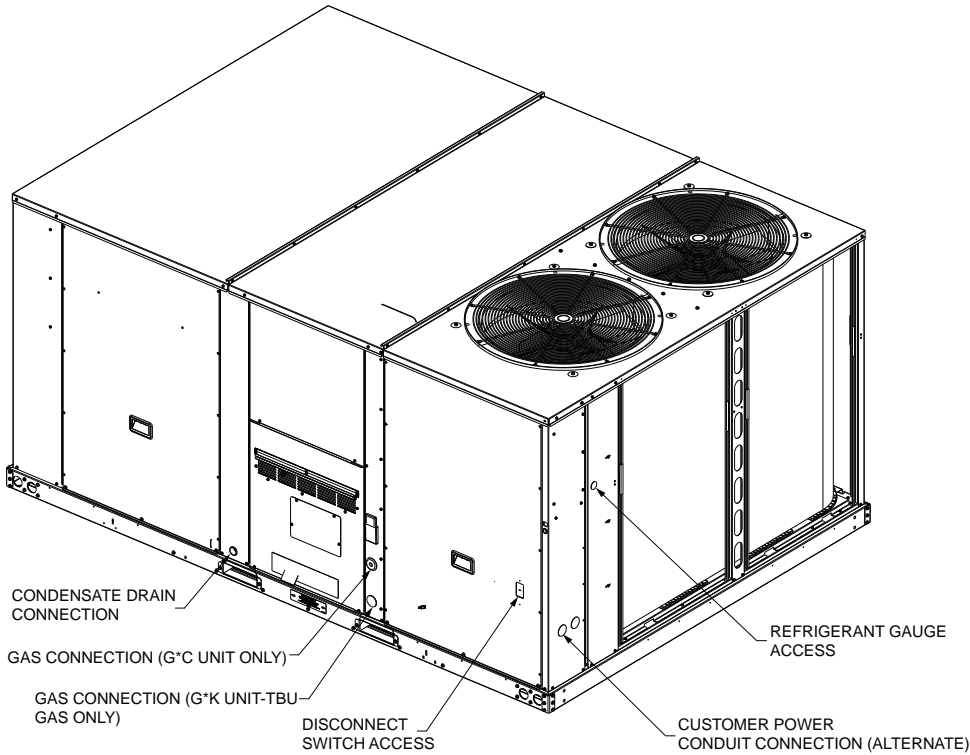
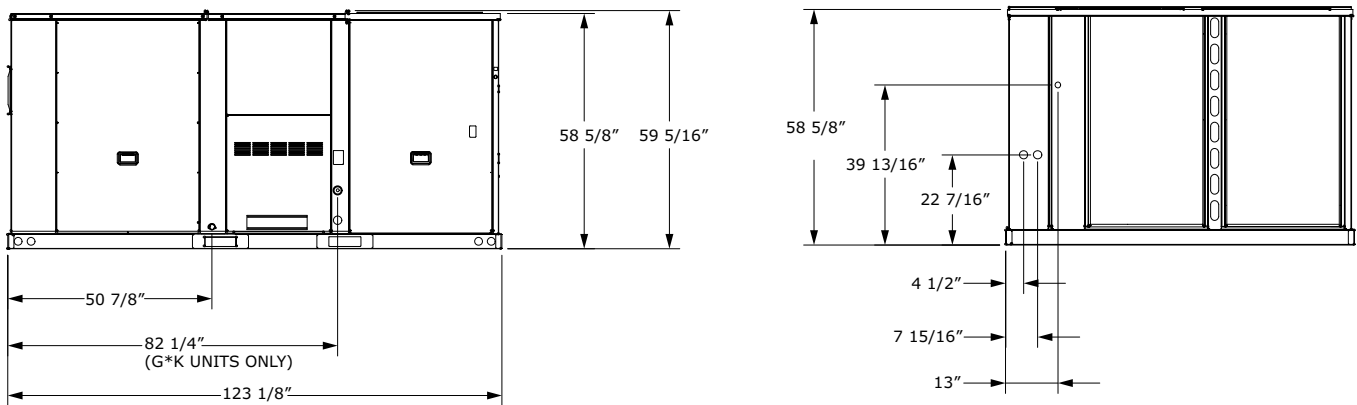


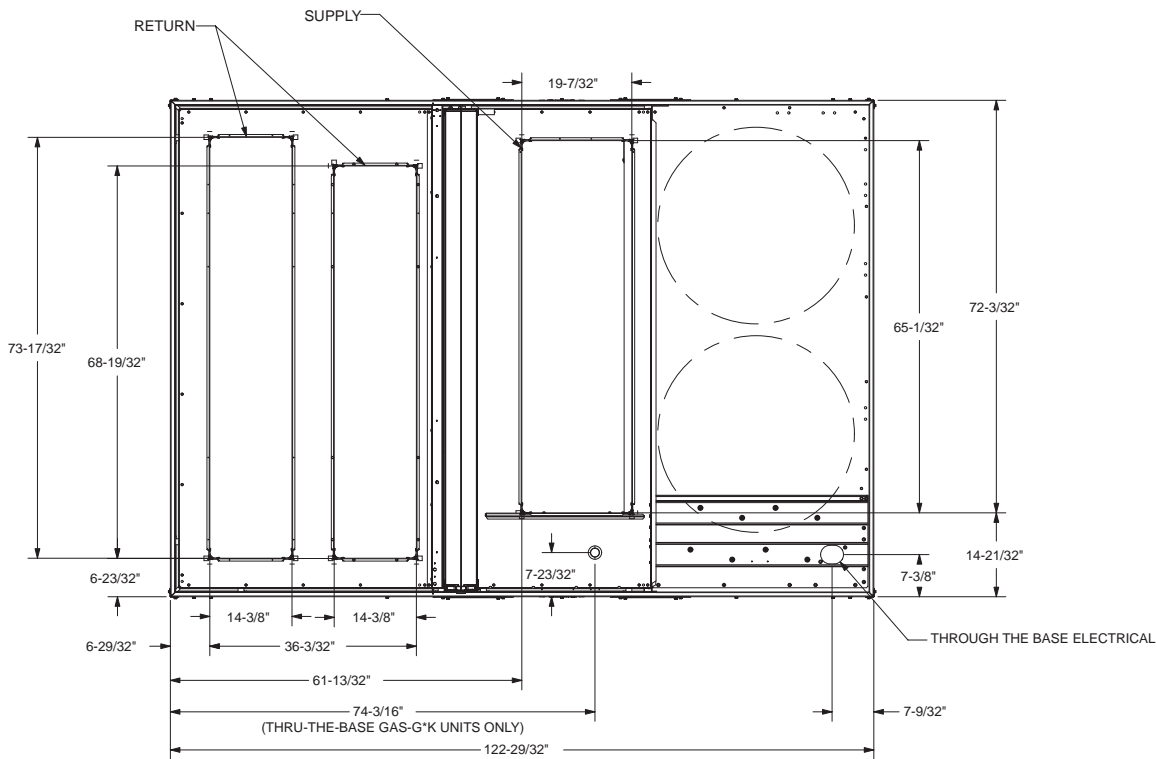
Figure 5. Cooling with optional electrical heat — front and side views (gas/electric)



NOTES:

1. THROUGH THE BASE GAS AND ELECTRICAL IS NOT STANDARD ON ALL UNITS.
2. VERIFY WEIGHT, CONNECTION, AND ALL DIMENSIONS WITH INSTALLER DOCUMENTS BEFORE INSTALLATION.

Figure 6. Cooling with optional electrical heat units — plain view (gas/electric)



- NOTES:
 1. THROUGH THE BASE GAS AND ELECTRICAL PROVISIONS ARE STANDARD ON ALL UNITS.
 2. VERIFY WEIGHT, CONNECTIONS, AND ALL OTHER DIMENSIONS WITH INSTALLER DOCUMENTS BEFORE INSULATION.

Figure 7. Cooling with optional electrical heat units — back view (horizontal configuration) (gas/electric)

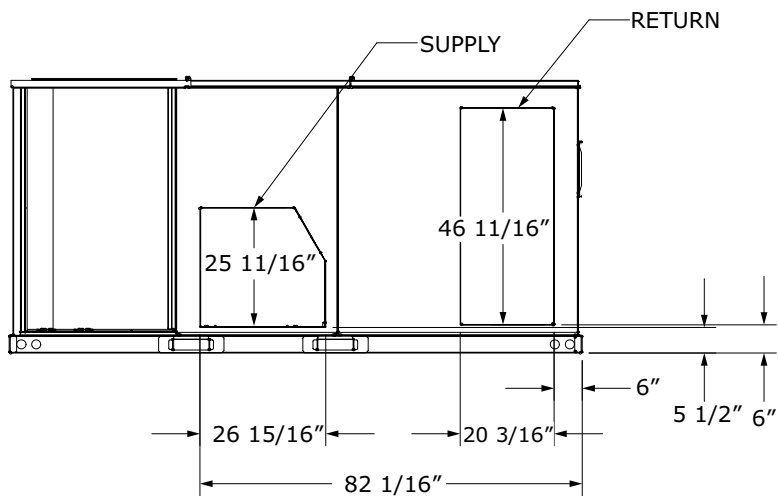


Figure 8. Cooling with optional electrical heat — roof curb (gas/electric)

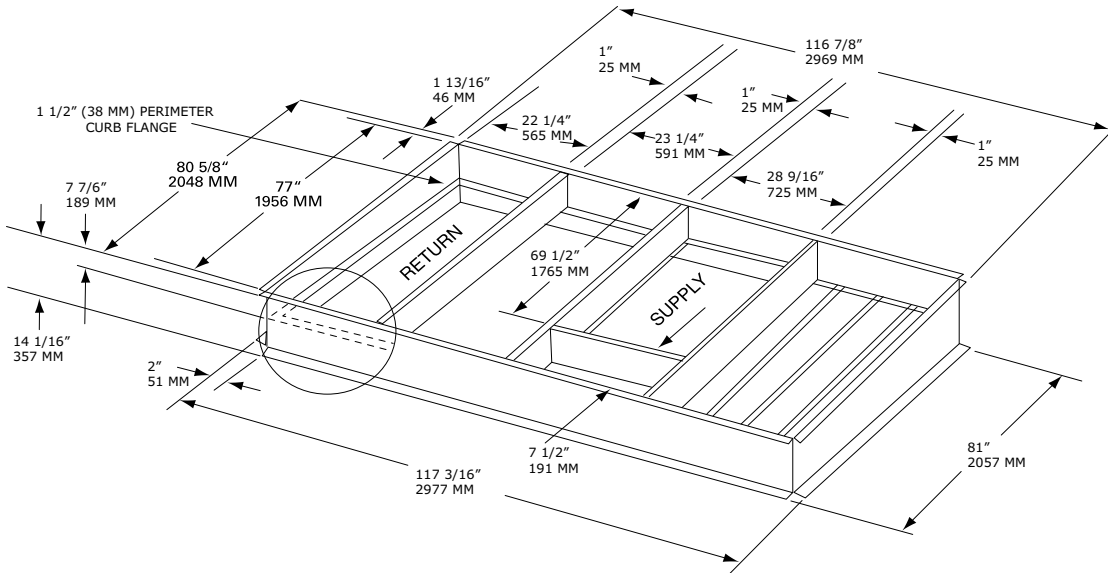
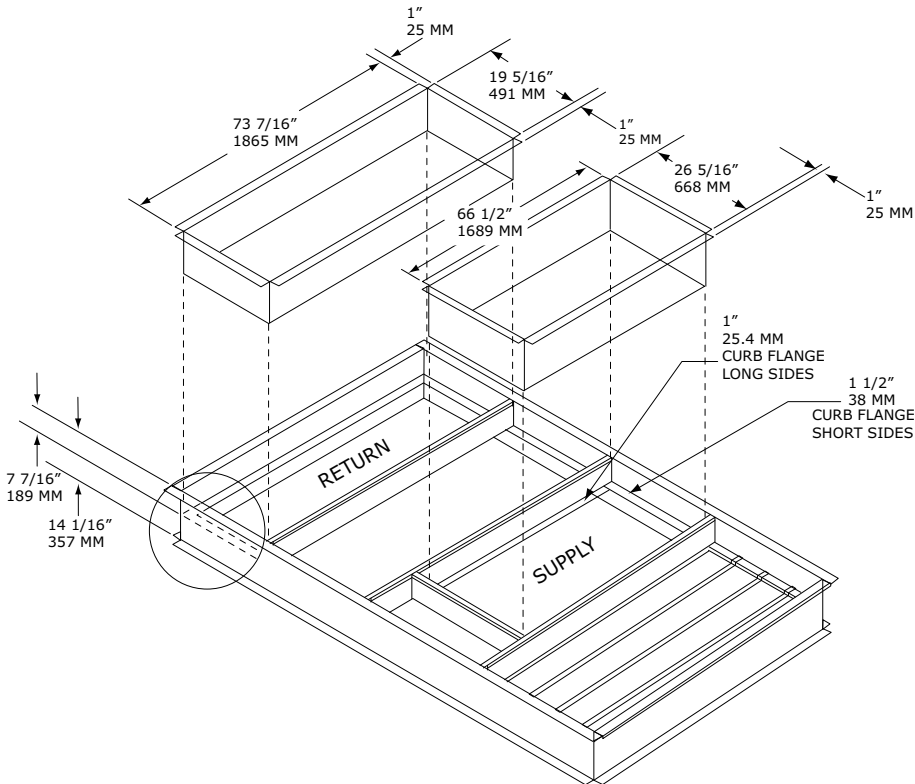


Figure 9. Cooling with optional electrical heat — downflow duct connections — field fabricated (gas/electric)



- NOTES:
- DUCT FLANGES MOUNT 7-7/16" DOWN INSIDE THE CURB ON THE 1-1/2" CURB FLANGES.
 - ROOFCURB IS INTENDED FOR DOWNFLOW USE ONLY.

Figure 10. Cooling with optional electric heat — downflow unit clearance (gas/electric)

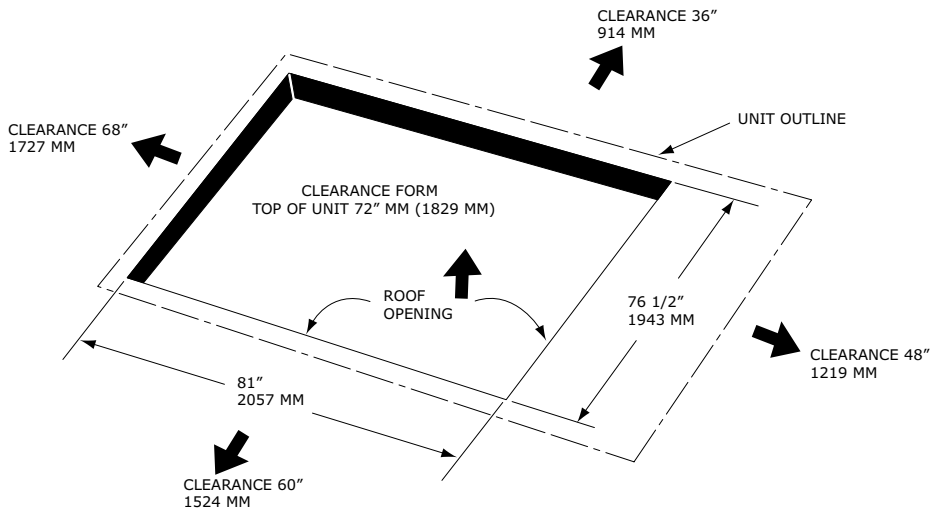
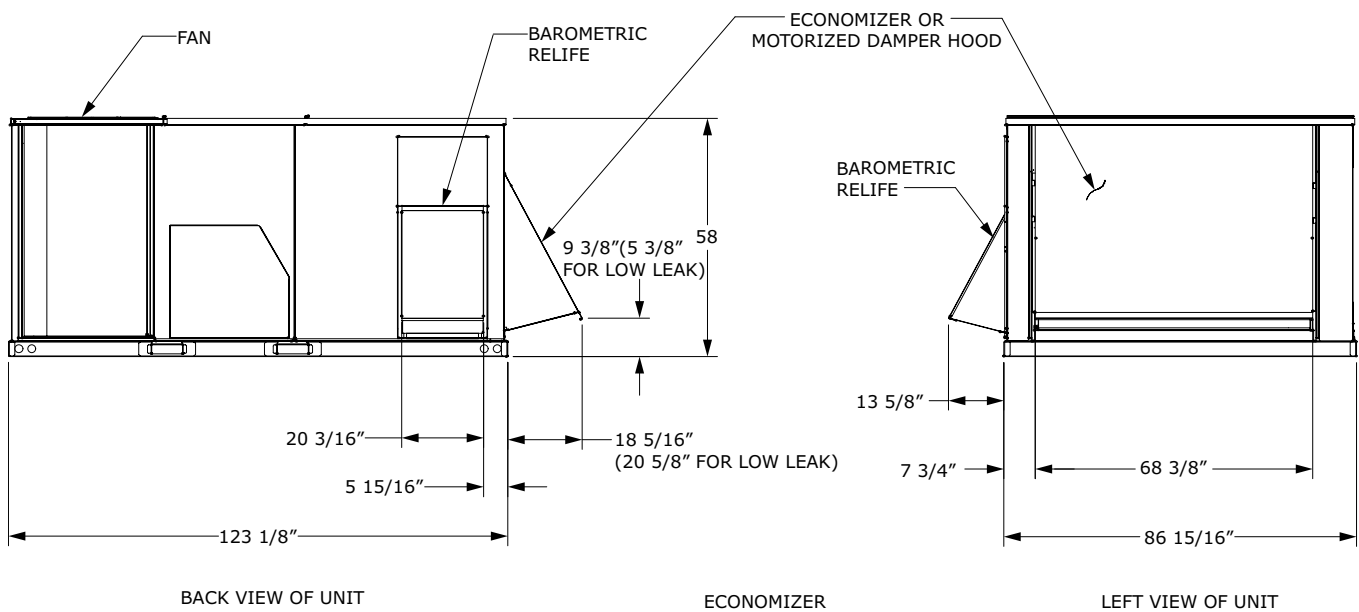


Figure 11. Cooling with optional electric heat — barometric relief and economizer (gas/electric)



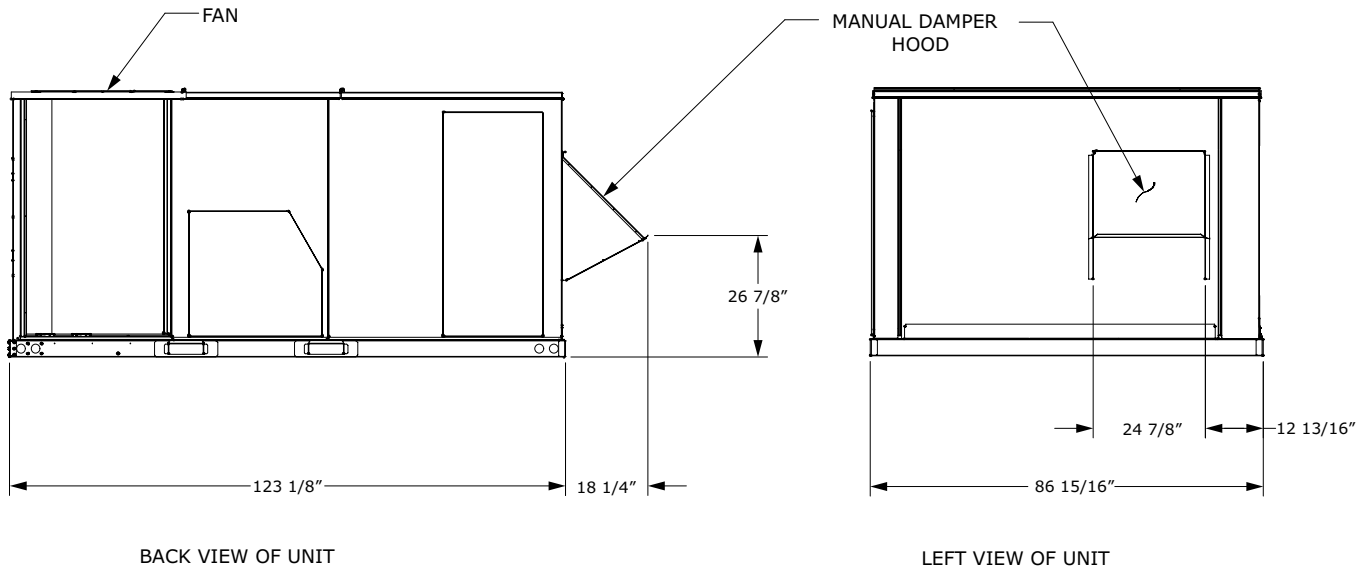
NOTES:

1. VERIFY WEIGHT, CONNECTION AND ALL DIMENSIONS WITH INSTALLER DOCUMENTS BEFORE INSTALLATION.
2. BAROMETRIC RELIEF IS FOR USE WITH A DOWNFLOW ECONOMIZER ONLY.



Dimensional Data

Figure 12. Cooling with optional electric heat — manual damper (gas/electric)



NOTE:
VERIFY WEIGHT, CONNECTION, AND ALL DIMENSIONS WITH INSTALLER DOCUMENTS BEFORE INSTALLATION.

Weights

Table 45. Maximum unit and corner weights (lb) and center of gravity dimensions (in.) cooling with optional electric heat units only

Tons	Unit Model No.	Weights (lb) ^{(a), (b)}		Corner Weights ^(c)				Center of Gravity (in.)	
		Shipping	Net	A	B	C	D	Length	Width
15	EDK180A	2216	1891	629	513	337	413	55	34
17.5	EDK210A	2221	1896	630	514	338	414	55	34
20	EDK240A	2227	1902	628	495	343	435	54	36
25	EDK300A	2263	1938	640	505	350	444	54	36

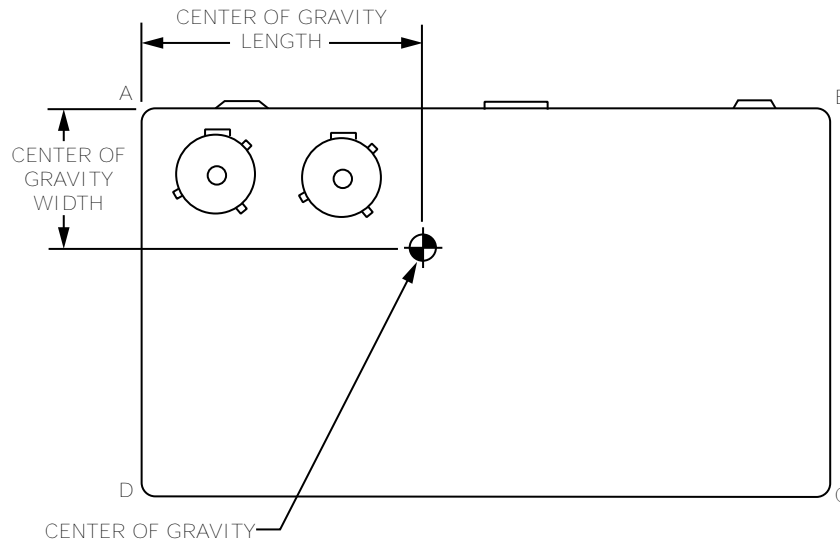
- ^(a) Weights are approximate. Horizontal and downflow unit and corner weights may vary slightly.
- ^(b) Weights do not include additional factory or field installed options/accessories.
- ^(c) Corner weights are given for information only. 15 to 25 ton models must be supported continuously by a curb or equivalent frame support.

Table 46. Maximum unit and corner weights (lb) and center of gravity dimensions (in.) gas/electric heat units only

Tons	Unit Model No.	Weights (lb) ^{(a), (b)}		Corner Weights ^(c)				Center of Gravity (in.)	
		Shipping	Net	A	B	C	D	Length	Width
15	GDK180A	2380	2054	683	557	366	448	55	34
17.5	GDK210A	2394	2069	688	561	369	452	55	34
20	GDK240A	2392	2067	683	538	373	473	54	36
25	GDK300A	2428	2103	695	548	379	481	54	36

- ^(a) Weights are approximate. Horizontal and downflow unit and corner weights may vary slightly.
- ^(b) Weights do not include additional factory or field installed options/accessories.
- ^(c) Corner weights are given for information only. 15 to 25 ton models must be supported continuously by a curb or equivalent frame support.

Figure 13. Corner weights



Note: To calculate additional weight for accessories, see Accessory net weights table.



Weights

Table 47. Accessory net weight (lb)

Accessories	E/GDK180	E/GDK210	E/GDK240	E/GDK300
Standard Economizer ^(a) , ^(b)	91	91	91	91
Low Leak Economizer - Downflow	115	115	115	115
Low Leak Economizer - Horizontal	115	115	115	115
Manual Outside Air Damper	15	15	15	15
Motorized outside Air Damper ^(c)	82	82	82	82
Power Exhaust ^(c)	110	110	110	110
Barometric relief ^(c)	40	40	40	40
Roof Curb ^(c)	235	235	235	235
Oversized Motor				
5 HP	2	–	–	–
7.5 HP	–	20	20	–
10 HP	–	–	–	60
Hail Guard	43	43	43	43
Through the Base Electrical	22	22	22	22
Disconnect	5	5	5	5
High Static Drive Kit ^(d)	2	2	2	2
Low Static Drive Kit ^(d)	2	2	2	2
LP Gas Conversion	2	2	2	2
Electric Heaters ^(e) , ^(f)				
18 kW (230 / 460 and 575 V)	36 / 29	–	–	–
36 kW (230 / 460 and 575 V)	41 / 35	41 / 35	41 / 35	41 / 35
54 kW (230 / 460 and 575 V)	48 / 40	48 / 40	48 / 40	48 / 40
72 kW (230 / 460 and 575 V)	–	51 / 42	51 / 42	51 / 42

^(a) Net weight should be added to unit weight when ordering factory-installed accessories.

^(b) Weights for factory installed options and field installed accessories not listed are less than 5 lb.

^(c) Downflow only.

^(d) Not available on all models (see Fan Performance tables for specific models).

^(e) For 600 V heaters net weights are same as 480 V heaters.

^(f) To estimate shipping weight add 5 lb to net weight.



Mechanical Specifications

General

- Packaged rooftop units cooling, heating capacities, and efficiencies are AHRI Certified within scope of AHRI Standard 340-360 (I-P) and ANSIZ21.47 and 10 CFR Part 431 pertaining to Commercial Warm Air Furnaces
- Packaged rooftop units are dedicated downflow or horizontal airflow
- Operating range between 125°F and 50°F in cooling standard from the factory
- Factory assembled, internally wired, fully charged with R-454B, and 100 percent run tested to check cooling operation, fan and blower rotation, and control sequence before leaving the factory
- Colored and numbered wiring internal to the unit for simplified identification
- Units ETL listed and labeled, classified in accordance UL 60335-2-40 4th edition.

Casing

- Zinc coated, heavy gauge, galvanized steel
- Weather-resistant baked enamel finish on phosphatized exterior surfaces
- Meets ASTM B117, 672 hour salt spray test
- Removable single side maintenance access panels
- Lifting handles in maintenance access panels (can be removed and reinstalled by removing no more than three fasteners while providing a water and air tight seal)
- Exposed vertical panels and top covers in the indoor air section shall be insulated with a 1/2-inch, 1-pound density foil-faced, fire-resistant, permanent, odorless, glass fiber material
- Base of unit is insulated with 1/2-inch, 1-pound density, foil-faced, glass fiber material
- Base pan does not have penetrations within the perimeter of the curb other than the raised 1 1/8-inch high downflow supply/return openings to provide an added water integrity precaution, if the condensate drain backs up
- Downflow unit's base pan shall have no penetrations within the perimeter of the curb other than the raised 1 1/8-inch high supply/return openings to provide an added water integrity precaution, if the condensate drain backs up
- Base of unit shall have provisions for forklift and crane lifting

Coils

Microchannel Coils

- Flat, streamlined tubes with small ports, and metallurgical tube-to-fin bond provides optimal heat transfer performance.
- Ability to reduce system refrigerant charge by up to 50% leads to better compressor reliability.
- Compact, all-aluminum microchannel coils reduce unit weight.
- Recyclable all-aluminum coils minimizes galvanic corrosion.
- Strong aluminum brazed structure provides better fin protection.
- Flat streamlined tubes makes it dust resistant and easy to clean.
- Coils leak tested at the factory confirms pressure integrity

Coil Guards

Provides condenser coil protection.

Compressors

- Direct-drive, hermetic, scroll type compressors with centrifugal type oil pumps
- Suction gas-cooled motor with voltage utilization range of plus or minus 10 percent of unit nameplate voltage
- Internal overloads standard with scroll compressors
- Crankcase heaters standard on all compressors



Mechanical Specifications

- Dual compressors
- Three stages of cooling available on 15 to 17.5 tons units
- Four stages of cooling available on 20 and 25 tons units

Demand Control Ventilation with CO₂ Sensor

Demand Control Ventilation (DCV) is a strategy that responds to the actual demand (need) for ventilation by regulating the rate at which the HVAC system brings outdoor air into the building. A carbon dioxide (CO₂) sensor measures the concentration (parts per million, ppm) of CO₂ in the air. As the CO₂ concentration changes, the outside air damper modulates to meet the current ventilation needs of the zone. The CO₂ sensor kit is available as a field installed accessory and wires directly to the Symbio™ 700 controller.

Discharge Line Thermostat

- A bi-metal element discharge line thermostat is installed as a standard option on the discharge line of each system
- Provides extra protection to the compressors against high discharge temperatures in case of loss of charge, extremely high ambient and other conditions which could drive the discharge temperature higher
- Wired in series with high pressure control
- When discharge temperature rises above the protection limit, the bi-metal disc in the thermostat switches to the off position, opening the 24 Vac circuit
- When temperature on the discharge line cools down, the bi-metal disc closes the contactor circuit, providing power to the compressor

Economizer (Standard)

- Assembly includes fully modulating 0–100% motor and dampers, barometric relief, minimum position setting, preset linkage, wiring harness with plug, fixed dry bulb, and spring return actuator.
- Barometric relief damper provides a pressure-operated damper that closes gravity and prohibits entrance of outside air during the equipment OFF cycle. Downflow feature is available from factory or field and Horizontal feature is available from field only

Electric Heaters

- Electric heat modules shall be available for installation within the basic unit
- Elements shall be constructed of heavy-duty nickel chromium elements internally delta connected for 240 volt, wye connected for 480 and 600 volt
- Each heater package shall have temperature high limiting devices that are equipped with an auto-resetting and a single operation switch operating as line break limits
- Single operation switch shall act as a backup limit control if the auto resetting switch fail to operate appropriately
- All heaters shall be individually fused from the factory, where required, and shall meet all NEC and CEC requirements when properly installed
- Power assemblies shall provide single-point connection
- Electric heat modules shall be UL listed or CSA certified
- If ordering the Through the Base Electrical option with an Electric Heater, the heater must be factory installed.

Filters

- Standard throwaway filters
- Optional 2-inch MERV 8 and MERV 13 filters

Frostat™

- Utilized as a safety device.
- Opens to prevent freezing temperatures on evaporator coil.
- Closes when temperature rises to 50°F.
- Utilized in low airflow or high outside air applications (cooling only).

Gas Heat Section

- Progressive tubular heat exchanger, stainless steel burners and corrosion resistant steel
- Induced draft combustion blower to pull the combustion products through the firing tubes
- Heater uses a direct spark ignition (DSI) system
- On initial call for heat, the combustion blower purges the heat exchanger for 20 seconds before ignition
- After three unsuccessful ignition attempts, entire heating system locked out until manually reset at the thermostat/zone sensor
- Units suitable for use with natural gas or propane (field-installed kit)

Hail Guards

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

Indoor Fan

- Belt driven, FC centrifugal fans with adjustable motor sheaves
- Motors thermally protected
- Oversized motors available for high static application
- Indoor fan motors meet the U.S. Energy Policy Act of 1992 (EPACT)

Leak Detection Sensors

Unit shall be furnished with a leak detection system from the factory when a circuit refrigerant charge exceeds 3.91 lbs. The leak detection system shall consist of one or more refrigerant detection sensors. When the system detects a leak, the unit controller shall initiate mitigation actions.

Low and High Static Drive

The low and high static drive option shall allow the standard motor on all units to operate at various external static pressure conditions.

Low Leak Economizer with Fault Detection and Diagnostics

- Economizer meets the damper leakage requirements for ASHRAE 90.1, IECC, and California Title 24 standards (3 cfm/ft² at 1.0 in. w.g. for outside air dampers and 4 cfm/ft² for return dampers).
- Controller provides the value of each sensor used in controlling the economizer operation.
- System status is indicated for the following conditions:
 - Free cooling available
 - Economizer enabled
 - Compressor enabled
 - Heating enabled
 - Mixed air low limit cycle active
- Fault Detection and Diagnostic system detects the following faults:
 - Air temperature sensor failure/fault
 - Not economizing when conditions indicate system should be economizing



Mechanical Specifications

- Economizing when conditions indicate system should not be economizing
- Dampers are not modulating
- Excessive amounts of outside air being introduced through the economizer
- Fault Detection and Diagnostic system is certified by the California Energy Commission as meeting requirements of California Title 24 120.2(i)1 through 120.2(i)8 in accordance with Section 100(h).
- Downflow feature is available from factory or field and Horizontal feature is available from field only.

Manual Outside Air Damper

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

Motorized Outside Air Damper

- Manually set outdoor air dampers shall provide up to 50% outside air
- Outdoor air dampers shall open to set position when indoor fan starts
- Damper shall close to the full closed position when indoor fan shuts down

Outdoor Fans

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

Oversized Motors

Oversized motors are available for high static applications from factory..

Phase Monitor

- 3-phase line monitor module
- Protects against phase loss, phase imbalance and phase reversal indication
- Intended to protect compressors from reverse rotation
- Operating input voltage range of 180–600 Vac
- LED indicators for ON and FAULT
- No field adjustments
- Module will automatically reset from a fault condition

Power Exhaust

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

Reference or Comparative Enthalpy

- Used to measure and communicate outdoor humidity
- 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 – 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
- Option is available on all models

Refrigerant Pressure Control

All units include High and Low Pressure Cutouts as standard.

Roof Curb – Downflow

- Roof curb shall be designed to mate with the downflow unit and provide support and a water tight installation when installed properly
- Design shall allow field-fabricated rectangular supply/return ductwork to be connected directly to the curb
- Curb shall be shipped knocked down for field assembly and shall include wood nailer strips

Stainless Steel Heat Exchanger

- Gas heat exchanger shall be of tubular heat exchanger design
- Constructed from a minimum 409 grade stainless steel tubes and 439 stainless steel burners
- Shall have a 10-year warranty as standard (Gas/Electric only)

Third Side Fork Access

This option shall provide fork openings on condenser end of unit for ease of maneuvering unit through narrow openings.

Through-the-Base Electrical with Disconnect Switch

- Three-pole, molded case, disconnect switch with provisions for through the base electrical connections are available
- Installed in the unit in a water tight enclosure with access through a swinging door
- Factory wiring shall be provided from the switch to the unit high voltage terminal block
- Switch shall 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.*

Through-the-Base Gas Piping

- Unit shall include a standard through the base gas provision
- Option shall have all piping necessary including, black steel, manual gas shut-off valve, elbows, and union
- Manual shutoff valve shall include a 1/8-inch NPT pressure tap
- Assembly will require minor field labor to install (Gas/Electric Only)

Through-the-Base Utilities Access

- 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 shall allow for field installation of liquid-tight conduit and an external field installed disconnect switch

Unit Top

The top cover shall be double hemmed and gasket sealed to prevent water leakage.



Notes



The AHRI Certified mark indicates Trane U.S. Inc. participation in the AHRI Certification program. For verification of individual certified products, go to ahridirectory.org.

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