Product Catalog

Packaged Rooftop Air Conditioners Foundation™

Cooling and Gas/Electric

3 to 5 Tons, 60 Hz

August 2024

RT-PRC111B-EN

Introduction

Packaged Rooftop Air Conditioners

Through the years, Trane has designed and developed the most complete line of Packaged Rooftop products available in the market today.

Trane customers demanded a product that provided exceptional reliability, was easy to install, and was competitively priced.

Trane listened and is proud to introduce the new Foundation™ Light Commercial rooftop unit. With Foundation, Trane continues to provide the highest standards in quality and reliability, comfort, performance, and ease of installation.

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Features and Benefits

Equipment feature availability is dependent on unit configuration.

Standard and Optional Features

	Standard	Options[a]	
		Factory Installed	Field Installed
1-year Limited Parts Warranty	X		
5-year Limited Compressor Warranty	X		
5-year Limited Heat Exchanger Warranty	X		
10-year Limited Stainless Steel Heat Exchanger Warranty		X	
5K SCCR	X		
Barometric Relief Damper			X
Barometric Relief Damper for Low Leak Economizer		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		
Crankcase Heaters			X
Disconnect Switch		X	X
Easy Access Low Voltage Connections	X		
Economizer (Downflow)		X	X
Economizer (Horizontal)			X
Electric Heaters		X	X
Fan Failure Switch[b]	X		
Filters	X		
Frostat™			X
Tool-less Hail Guards			X
High Efficiency Filters (MERV 13)		X	X
High Pressure Control	X		
High Static Motor Kit[c]		X	X
IAQ Dual Sloped and Removable Drain Pans	X		
Insulation - 1/2-inch, 1-lb Density	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 Voltage Circuit Protection	X		
LP Conversion Kit			X

	Standard	Options[a]	
		Factory Installed	Field Installed
Manual Outside Air Damper		X	X
Motorized 2-Position Damper		X	X
Phase Loss/Reversal Monitor	X		
Powered Exhaust			X
Quick Access Panels	X		
Remote Potentiometer			X
Roof Curb			X
Scroll Compressors	X		
Single Point Power	X		
Single Side Service	X		
Standardized Components	X		
Thermal Expansion Valve	X		
Thermostats			X
Through-the-Base Electrical and Gas Connection Provisions		X	X

(a) Refer to model number description for option availability or contact Product Support.
(b) Fan Failure Switch is standard design in Cooling only and Cooling only with Electric Heat unit. Not needed for Gas Heat unit.
(c) Available on constant volume units only. See Accessories chapter for more information.

Outstanding Standard Features

Colored and Numbered Wiring

Save time and money tracing wires and diagnosing the unit.

Compressors

Foundation™ contains the best compressor technology available to achieve the highest possible performance.

Controls – Electromechanical

This 24-volt control includes the control transformer and contactor pressure lugs for power wiring.

Convertible Units

Foundation™ 3 to 5 tons units ship in downflow configuration. The convertible design makes it easy to convert them to a horizontal airflow configuration without any kit or tool.

Discharge Line Thermostat

A bi-metal element discharge line thermostats is a standard feature on the discharge line of each compressor. This 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.

Efficiency

Product efficiencies meet the requirements of ASHRAE 90.1-2022.

Easy Access Low Voltage Terminal Board

The Foundation™ low voltage terminal board is mounted outside the main electrical control cabinet. Save time by attaching the thermostat control wiring and testing operation of all unit functions.

Fan Failure Switch

In electric heat mode, heaters will not be energized until differential pressure switch proves airflow. The factory set point is 0.07-inch w.c.

Insulation

All panels in the evaporator section 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.

Heat Exchanger

The cabinet features a tubular heat exchanger in low and medium 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.

Low Ambient Cooling

All Foundation units have cooling capabilities down to 45°F as standard.

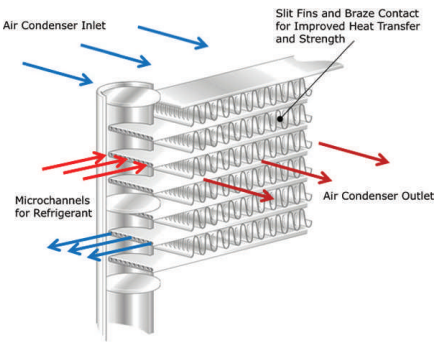
Low Voltage Connections

The wiring of the low voltage connections to the unit and the thermostat is as simple as R-R, G-G, Y-Y, and W-W.

Microchannel Condenser Coil

Microchannel condensing coils are all-aluminum coils with fully-brazed construction. 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

Indoor fan motors are belt drive as standard.

Pressure Cutouts

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

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 to 600 Vac, and LED indicators for ON and FAULT. There are no field adjustments and the module will automatically reset from a fault condition.

Quick-Access Panels

Remove four 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.

Single Point Power

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

Single Side Service

Single side service is standard on all units.

Sloped Drain Pans

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

Standardized Components

Components are placed in the same location on all Foundation units. With standard components across Foundation, contractors/owners can stock fewer parts.

Variety of Options

Factory Installed Options

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 alkalies, acids, alcohols, petroleum, seawater, salt air, and corrosive environments.

Stainless Steel Heat Exchanger

The optional stainless steel heat exchanger is constructed of 304 stainless steel tubes and 439 stainless steel burners. It is resistant to corrosion, 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.

Factory or Field Installed Options

Barometric Relief

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

Note: *The factory installed barometric relief is for downflow low leak economizer units only.*

Condensate Overflow Switch

A condensate overflow switch is available to shut the unit down in the event that the condensate drain becomes clogged. This option protects the unit from water overflowing from the drain pan and entering the base of the unit.

Disconnect Switch

This accessory can be utilized as a convenient way to stock standard product without a disconnect and have the ability to use the through-the-base/disconnect offering. The standard disconnect is non-fused, 3-pole, case molded switch.

Economizer - Downflow

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

Factory-installed economizers save time and ensure proper installation.

Note: *Factory-installed economizers require some field setup.*

Electric Heaters

Electric heat is available as a factory or field installed option.

Note: *For EDK036-060 cooling only units.*

High Efficiency Filters

Two-inch MERV 13 media filters available on all models.

Low Leak Economizer with Fault Detection and Diagnostics - Downflow

This economizer meets the damper leakage requirements for ASHRAE 90.1, IECC, and California Title 24 standards (3 cfm/ft^2 at 1.0 in. w.g. for outside air dampers and 4 cfm/ft^2 for return dampers).

Also, Fault Detection and Diagnostic information per California Title 24 is provided with this option. Barometric relief must be field installed with this option. Horizontal airflow configurations may only be field installed.

Manual Outside Air Damper

A 0 to 50 percent manual air damper is available.

Motorized Outside Air Damper

A 0 to 50 percent motorized outside air dampers is available.

Oversized Motors and Drive

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

Reference or Comparative Enthalpy

Measures and communicates humidity while maximizing comfort control.

Through-the-Base Electrical Utility Access

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

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

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 will require minor field labor to install.

Field Installed Options

Barometric Relief

Designed to be used on downflow and horizontal configuration for both standard and low leak economizer units, barometric relief is an unpowered means of relieving excess building pressure.

CO_2 Sensor - Demand Control Ventilation (DCV)

Demand-controlled ventilation (DCV) is a control 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 CO_2 sensor measures the concentration (parts per million, ppm) of CO_2 in the air. As the CO_2 concentration changes, the outside air damper modulates to meet the current ventilation needs of the zone. DCV is a passive system; direct control of the indoor fan is not possible with standard or low leak economizers. The CO_2 sensor kit is available as a field installed accessory.

Crankcase Heaters

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

Economizer - Horizontal

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

Frostat™

This switch, attached to the tube of the evaporator coil, monitors coil temperature to prevent evaporator icing and protect the compressor. Recommended for applications with low leaving air temperatures, low airflow and/or high latent load applications.

Low Ambient Kit

Allows system to operate in cooling below 45 degrees by maintaining head pressure by cycling the outdoor fan motor allowing safe system operation without indoor coil icing.

Low Leak Economizer with Fault Detection and Diagnostics - Horizontal

This economizer meets the damper leakage requirements for ASHRAE 90.1, IECC, and California Title 24 standards (3 cfm/ft^2 at 1.0 in. w.g. for outside air dampers and 4 cfm/ft^2 for return dampers).

Also, Fault Detection and Diagnostic information per California Title 24 is provided with this option. Barometric relief must be field installed with this option. Horizontal airflow configurations may only be field installed.

LP Conversion Kit

Provided for field conversion of gas heat units from natural gas to propane.

Power Exhaust

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

Remote Potentiometer

When installed in the economizer control circuitry, this accessory provides a method to remotely adjust the minimum damper position.

Roof Curbs

Available for downflow units. Only one roof curb for the entire Foundation™ line simplifies curb selection.

Thermostats

Available in programmable and non-programmable.

Tool-less Hail Guards

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

Other Benefits

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.

Easy to Install, Service and Maintain

Because owners today are very cost-conscious when it comes to service and maintenance, Foundation was designed with direct input from service contractors. This valuable information helped to design a product to get the service technician off the job quicker and save the owner money. Foundation does this by offering outstanding standard features enhanced by a variety of factory and field installed options, multiple control options, rigorously tested proven designs, and superior product and technical support.

Outstanding Adaptability

The Foundation 3 to 5 ton units match the footprint of specific Carrier WeatherMaker™ units.

Rigorous Testing

All 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 of the top overlaps so water cannot leak into the unit. 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. Factory shake and drop tests were used as part of the package design process to help assure that the unit arrives at the job site in top condition.

Rigging tests include lifting a unit into the air and letting it drop one foot, to confirm lifting lugs and rails hold up under stress. For the microchannel coils, the supplier will perform the 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 at the point of final assembly. Sub-standard parts are identified and rejected immediately. Every unit receives a 100 percent unit run test before leaving the production line to meet rigorous requirements.

Application Considerations

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

Barometric Relief

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

Notes:

- *The effectiveness of barometric relief damper during economizing operation is system related.*
- *Pressure drop of the return air system should be considered to control building pressurization.*

Clearance Requirements

The recommended clearances identified with unit dimensions should be maintained to confirm adequate serviceability, maximum capacity, and peak operating efficiency. Review clearances with local sales personnel.

Complete Coat™ Microchannel 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 alkalies, acids, alcohols, petroleum, seawater, salt air, and corrosive environments. This coating is available on microchannel condenser coils.

Condensate Trap

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

Heating Operation

The heat exchanger is manufactured with aluminized steel.

To prevent condensation within the heat exchanger, do not exceed 50 percent outside air or a minimum mixed air temperature of 40°F.

Optional Stainless Steel Heat Exchanger

The optional stainless steel heat exchanger is manufactured with 304 stainless steel tubes and 439 stainless steel burners. To prevent corrosion and prolong heat exchanger reliability, the minimum mixed air temperature allowed across the heat exchanger is 40°F. When high outside air or outside applications exist, this option should be utilized.

Low Ambient Cooling

Foundation™ line features low ambient cooling down to 45°F. Consider these options when low ambient applications are required: continuous fan operation, crankcase heaters, or frostat.

Unit Pitch

Units have sloped condensate drain pans, must be installed level, and any unit slope must be toward the access side of the unit.

Selection Procedure

Cooling Capacity

Note: *Cooling capacity procedure is the same for cooling (E) and gas/electric (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: 61 MBh
   - Sensible Cooling Load: 45 MBh
   - Airflow: 2000 cfm
   - Electrical Characteristics: 460/60/3
   - Summer Design Conditions: Entering Evaporator Coil: 80ºF DB/67ºF WB
   - Outdoor Ambient: 95ºF
   - External Static Pressure: 0.36 in. wg
   - Rooftop – downflow configuration
   - Efficiency: 13.4 SEER
   - 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.

   61 Mbh / 12 MBh = 5.0 tons

3. Table 5, p. 20 shows that a EDK060A has a gross cooling capacity of 61.9 MBh and 47.3 MBh sensible capacity at 2000 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	0.36 wg
Standard Filter 2 in. from Table 26, p. 39	0.06 wg
Economizer (100% Return Air) from Table 26, p. 39	0.07 wg
Electric Heater Size kW from Table 26, p. 39	0.07 wg
Total Static Pressure	0.56 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 18, p. 33 has already accounted for the pressure drop for standard filters and wet coils (see note below in Table 18, p. 33). The actual total static pressure is 0.56 - 0.06 (from Table 26, p. 39) = 0.50 wg.*

With 2000 cfm and 0.50 wg.Table 18, p. 33 shows 0.83 bhp for this unit. Note below is the formula to calculate fan motor heat.

2.8328 x Fan bhp + 0.4714.

2.8328 x 0.83 + 0.4714 = 2.82 MBh

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

Net Total Cooling Capacity = 61.9 MBh - 2.82 = 59.08 MBh.

Net Sensible Cooling Capacity = 47.3 MBh - 2.82 = 44.48 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 (E) and gas/electric (G) units.*

1. Calculate the building heating load.
2. Size the system heating capacity to match the calculated building heating load.

   The electric heat accessory capacities are listed in Table 28, p. 39. From the table, a 10 kW heater will deliver 34.14 MBh at 480 volts. In order to determine capacity at 460 volts, the heater voltage correction factor from Table 29, p. 40 must be used. Therefore, 34.14 MBh x 0.92 (voltage correction factor) = 31.41 MBh.

Air Delivery Selection

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

External static duct pressure drop through the air distribution system has been calculated to be 0.36 inches of water. From Table 26, p. 39 static pressure drop through the economizer is 0.07 and the 10kW heater is 0.07 inches of water. Therefore the total static pressure is 0.36 + 0.07 + 0.07= 0.50 inches. Enter Table 18, p. 33 for a EDK060A at 2000 cfm and 0.50 static pressure. The standard motor at 957 rpm will give the desired airflow at a rated bhp of 0.83.

Model Number Description

Digit 1 — Unit Function

E = DX Cooling
G = DX Cooling, Gas Heat

Digit 2 — Cooling Efficiency

D = Standard Efficiency

Digit 3 — Airflow Configuration / Refrigerant

K = R-454B

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

036 = 3 Ton
048 = 4 Ton
060 = 5 Ton

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

E = Electromechanical

Digit 10 — Heating Capacity

Note: *Applicable to Digit 1 = E models only*

0 = No Heat
A = 5 kW Electric Heat
B = 7.5 kW Electric Heat
C = 10 kW Electric Heat
D = 14.4 kW Electric Heat
E = 20 kW Electric Heat
F = 25 kW Electric Heat

Note: *Applicable to Digit 1 = G models only*

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

Digit 11 — Minor Design Sequence

Digit 12,13 — Service Sequence

00 = None

Digit 14 — Fresh Air Selection[3], [4]

0 = No Fresh Air
A = Manual Outside Air Damper 0-50%
B = Motorized Outside Air Damper 0-50%
C = Economizer, Dry Bulb 0-100% without Barometric Relief
E = Economizer, Reference Enthalpy 0-100% without Barometric Relief
G = Economizer, Comparative Enthalpy 0-100% without Barometric Relief
J = Downflow Low Leak Economizer, Dry Bulb without Barometric Relief
K = Downflow Low Leak Economizer, Dry Bulb with Barometric Relief
L = Downflow Low Leak Economizer, Reference Enthalpy without Barometric Relief
M = Downflow Low Leak Economizer, Reference Enthalpy, with Barometric Relief
N = Downflow Low Leak Economizer, Comparative Enthalpy without Barometric Relief
P = Downflow Low Leak Economizer, Comparative Enthalpy, with Barometric Relief

Digit 15 — Supply Fan/Motor

0 = Standard Motor
1 = Oversized Motor

Digit 16 — Fork Access/ Unit Access/ Filters

0 = Standard Filters
D = 2 inch MERV 13 Filters

Digit 17 — 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-Base Gas[1]
C = Through-the-Base Electric/Gas

Digit 19 — Disconnect

0 = No Disconnect
1 = Unit Mounted Non-Fused Disconnect Switch[2]

Digit 20-24

Not Used

Digit 25 — System Monitoring Controls

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

Digit 26 — System Monitoring Controls

0 = No Economizer Fault Detection and Diagnostics (FDD)
B = Economizer Fault Detection and Diagnostics (FDD)[5]

Model Number Notes

Notes:

1. Some field setup 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.
5. Fault Detection and Diagnostics (FDD) is available on Low Leak Economizers only.

General Data

Table 1. General data – 3 to 5 tons

	3 Tons	4 Tons	5 Tons
	E/GDK036	E/GDK048	E/GDK060
Cooling Performance[a]			
Gross Cooling Capacity	38,000	51,300	59,500
EER[b] /EER2[c]	12.0 / 10.6	12.0 / 10.6	12.0 / 10.6
Nominal Airflow CFM / AHRI Rated CFM	1200 / 1050	1600 / 1400	2000 / 1600
AHRI Net Cooling Capacity	36,600	49,500	57,500
SEER[b]/SEER2[c]	14.0 / 13.4	14.0 / 13.4	14.0 / 13.4
System Power (kW)	3.45	4.67	5.42
Compressor			
Number/Type	1 / Scroll	1 / Scroll	1 / Scroll
Sound			
Outdoor Sound Rating (dBA)[d]	79	80	81
Outdoor Coil			
Type	Microchannel	Microchannel	Microchannel
Coil Width (in.)	0.63	0.63	0.71
Face Area (sq. ft.)	11.33	13.46	15.92
Rows/FPI	1 / 23	1 / 23	1 / 23
Indoor Coil			
Type	Microchannel	Microchannel	Microchannel
Coil Width (in.)	0.63	0.63	0.81
Face Area (sq. ft.)	6.44	6.44	6.44
Rows/FPI	2 / 16	2 / 16	2 / 16
Refrigerant Control	Thermal Expansion Valve	Thermal Expansion Valve	Thermal Expansion Valve
Drain Connection Number/Size (in.)	1 / ¾-14 NPT	1 / ¾-14 NPT	1 / ¾-14 NPT
Outdoor Fan			
Type	Propeller	Propeller	Propeller
Number Used/Diameter (in.)	1 / 23	1 / 23	1 / 23
Drive Type/No. Speeds	Direct / 1	Direct / 1	Direct / 1
cfm	4000	4000	4000
Number Motors/hp	1 / 0.33	1 / 0.33	1 / 0.33
Motor rpm	1100	1100	1100
Indoor Fan			
Type	FC Centrifugal	FC Centrifugal	FC Centrifugal
Number Used/Diameter (in.)	1 / 11x11	1 / 11x11	1 / 11x11
Drive Type/No. Speeds	Belt / 1	Belt / 1	Belt / 1
Number Motors	1	1	1
Motor hp (Standard/Oversized)	1.0 / 2.0	1.0 / 2.0	1.0 / 2.0
Motor rpm (Standard/Oversized)	1750 / 1750	1750 / 1750	1750 / 1750
Motor Frame Size (Standard/Oversized)	56 / 56	56 / 56	56 / 56
Filters			
Type Furnished	Throwaway	Throwaway	Throwaway
Number Size Recommended	(4) 16x16x2	(4) 16x16x2	(4) 16x16x2
Refrigerant Charge (Pounds of R-454B)[e]			
Circuit 1	3	3.3	3.9

[a] Cooling Performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. ARI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Certified in accordance with the Unitary Air-Conditioner Equipment Certification Program, which is based on AHRI Standard 210/240.

[b] EER and SEER are rated at AHRI conditions and calculated in accordance with AHRI Standard 210/240-2017. Airflow and net cooling capacity not shown.

[c] EER2 and SEER2 are rated at AHRI conditions and certified in accordance with AHRI Standard 210/240-2023.

[d] Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270 or 370.

[e] Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.

Table 2. General data – heating performance – 3 to 5 tons

	Heating Performance[a]					
	3 Tons		4 Tons		5 Tons	
Heating Models	**Low**	**Medium**	**Low**	**Medium**	**Low**	**Medium**
Heating Input (Btu/h)	72,000	100,000	72,000	115,000	72,000	115,000
1st Stage (Btu)		80,000		92,000		92,000
Heating Output (Btu/h)	57,600	80,000	57,600	92,000	57,600	92,000
1st Stage (Btu)		64,000		73,600		73,600
Steady State Efficiency %	80	80	80	80	80	80
No. Burners	2	3	2	3	2	3
No. Stages	1	2	1	2	1	2
Gas Supply Line Pressure (in. wc)	4.0 / 14.0	4.0 / 14.0	4.0 / 14.0	4.0 / 14.0	4.0 / 14.0	4.0 / 14.0
Natural Gas (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
Gas Connection Pipe Size (in.)	1/2	1/2	1/2	1/2	1/2	1/2

[a] 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.

Performance Data

Gross Cooling Capacities

Table 3. Gross cooling capacities 3 tons - E/GDK036A3,4,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
960	75	35.0	27.9	39.6	22.1	44.6	15.8	33.0	26.8	37.4	21.0	42.2	14.8	30.8	25.7	35.1	19.9	39.6	13.7
	80	35.1	32.8	39.6	27.2	44.6	21.1	33.2	31.7	37.5	26.1	42.2	20.1	31.1	30.5	35.2	25.0	39.7	18.9
	85	36.3	36.3	39.6	32.2	44.6	26.3	34.7	34.7	37.5	31.1	42.3	25.2	32.9	32.9	35.2	30.0	39.7	24.1
	90	38.4	38.4	39.7	36.0	44.7	31.4	36.8	36.8	37.7	36.0	42.3	30.3	35.0	35.0	35.4	34.8	39.8	29.2
1080	75	35.9	29.8	40.6	23.3	45.6	16.2	33.9	28.7	38.3	22.2	43.1	15.2	31.6	27.5	35.9	21.0	40.4	14.2
	80	36.1	35.2	40.6	28.9	45.6	22.2	34.2	34.1	38.4	27.9	43.2	21.1	32.3	32.3	36.2	26.8	40.5	19.9
	85	38.0	38.0	40.6	34.6	45.7	27.9	36.3	36.3	38.4	33.5	43.2	26.8	34.4	34.4	36.1	32.1	40.5	25.7
	90	40.3	40.3	40.9	39.9	45.7	33.6	38.6	38.6	38.8	38.8	43.3	32.5	36.6	36.6	36.7	36.7	40.6	31.3
1200	75	36.7	31.7	41.4	24.4	46.4	16.8	34.6	30.5	39.1	23.3	43.9	15.7	32.3	29.0	36.6	22.1	41.1	14.5
	80	37.1	37.1	41.4	30.6	46.5	23.1	35.4	35.4	39.1	29.5	43.9	22.0	33.4	33.4	36.6	28.4	41.2	20.9
	85	39.5	39.5	41.5	36.7	46.5	29.5	37.7	37.7	39.2	34.8	44.0	28.4	35.7	35.7	36.8	34.4	41.2	27.2
	90	41.9	41.9	42.0	42.0	46.5	35.7	40.1	40.1	40.2	40.2	44.0	34.7	38.1	38.1	38.1	38.1	41.3	33.5
1320	75	37.3	33.3	42.1	25.5	47.1	17.1	35.2	31.9	39.7	24.4	44.5	16.0	32.9	29.7	37.1	23.2	41.6	14.8
	80	38.3	38.3	42.1	32.3	47.2	24.1	36.5	36.5	39.7	31.2	44.6	23.0	34.5	34.5	37.2	30.0	41.7	21.8
	85	40.8	40.8	42.2	37.7	47.2	31.0	38.9	38.9	39.9	37.7	44.6	29.9	36.9	36.9	37.4	36.5	41.8	28.7
	90	43.3	43.3	43.4	43.4	47.2	37.9	41.4	41.4	41.5	41.5	44.7	36.8	39.3	39.3	39.3	39.3	41.8	35.6
1440	75	37.9	34.4	42.7	26.5	47.7	17.4	35.8	33.8	40.2	25.4	45.0	16.3	33.4	32.5	37.6	24.2	42.1	15.1
	80	39.4	39.4	42.7	34.0	47.8	25.0	37.5	37.5	40.3	32.8	45.1	23.9	35.4	35.4	37.7	31.6	42.2	22.7
	85	42.0	42.0	42.9	41.0	47.8	32.5	40.0	40.0	40.5	39.8	45.1	31.4	37.9	37.9	38.0	38.0	42.2	30.2
	90	44.6	44.6	44.7	44.7	47.8	40.0	42.6	42.6	42.7	42.7	45.2	38.7	40.4	40.4	40.4	40.4	42.3	36.3
CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		115						120						125					
		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
960	75	28.5	24.4	32.5	18.7	36.7	12.6	27.2	23.8	31.2	18.0	35.2	12.0	25.9	23.0	29.7	17.4	33.6	11.3
	80	28.9	28.9	32.6	23.7	36.8	17.7	27.9	27.9	31.4	23.1	35.3	17.1	26.8	26.8	29.8	22.4	33.7	16.4
	85	30.9	30.9	32.7	28.8	36.9	22.9	29.9	29.9	31.3	28.0	35.3	22.2	28.8	28.8	29.9	27.1	33.7	21.5
	90	33.0	33.0	33.1	33.1	36.9	27.9	31.9	31.9	32.0	32.0	35.4	27.3	30.8	30.8	30.8	30.8	33.8	26.6
1080	75	29.2	26.2	33.2	19.8	37.5	12.9	27.9	25.0	31.8	19.1	35.9	12.3	26.6	24.8	30.3	18.5	34.2	11.6
	80	30.2	30.2	33.3	25.4	37.5	18.7	29.1	29.1	31.9	24.8	35.9	18.0	28.0	28.0	30.4	24.1	34.3	17.4
	85	32.3	32.3	33.4	30.4	37.6	24.4	31.2	31.2	32.0	30.2	36.0	23.8	30.0	30.0	30.6	29.5	34.3	23.1
	90	34.5	34.5	34.6	34.6	37.7	30.1	33.3	33.3	33.4	33.4	36.1	29.4	32.1	32.1	32.2	32.2	34.4	28.8
1200	75	29.8	26.9	33.8	20.9	38.0	13.3	28.5	27.2	32.4	20.2	36.4	12.6	27.1	26.4	30.8	19.5	34.7	11.9
	80	31.3	31.3	33.9	27.1	38.1	19.6	30.2	30.2	32.4	26.4	36.5	19.0	29.0	29.0	30.9	25.7	34.8	18.3
	85	33.6	33.6	34.1	33.0	38.2	26.0	32.4	32.4	32.7	32.3	36.5	25.3	31.1	31.1	31.2	31.2	34.8	24.6
	90	35.8	35.8	35.9	35.9	38.2	32.2	34.6	34.6	34.6	34.6	36.6	31.5	33.3	33.3	33.3	33.3	34.9	30.1
1320	75	30.4	29.5	34.3	21.9	38.5	13.6	29.0	28.8	32.8	21.2	36.8	12.9	27.7	27.7	31.2	20.5	35.1	12.2
	80	32.3	32.3	34.4	28.7	38.6	20.6	31.1	31.1	32.9	28.1	36.9	19.9	29.9	29.9	31.3	27.1	35.1	19.2
	85	34.6	34.6	34.7	34.7	38.6	27.4	33.4	33.4	33.4	33.4	37.0	26.8	32.1	32.1	32.1	32.1	35.2	26.1
	90	36.9	36.9	37.0	37.0	38.7	33.3	35.6	35.6	35.7	35.7	37.1	32.1	34.2	34.2	34.3	34.3	35.3	32.6
1440	75	30.9	30.9	34.7	22.9	38.9	13.8	29.6	29.6	33.2	22.2	37.2	13.2	28.4	28.4	31.6	21.5	35.4	12.5
	80	33.2	33.2	34.8	30.0	39.0	21.4	31.9	31.9	33.3	28.9	37.3	20.8	30.6	30.6	31.7	27.7	35.5	20.1
	85	35.5	35.5	35.6	35.6	39.1	28.9	34.2	34.2	34.3	34.3	37.3	28.2	32.9	32.9	32.9	32.9	35.6	27.5
	90	37.9	37.9	37.9	37.9	39.2	36.0	36.5	36.5	36.6	36.6	37.5	35.3	35.1	35.1	35.1	35.1	35.7	34.5

Notes:

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

Table 4. Gross cooling capacities 4 tons - E/GDK048A3,4,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
1280	75	47.5	38.0	53.3	30.0	59.2	21.4	45.1	36.8	50.6	28.8	56.1	20.1	42.4	35.4	47.5	27.4	52.5	18.7
	80	47.7	43.8	53.3	36.8	59.3	28.4	45.3	42.0	50.6	35.6	56.1	27.1	42.7	41.8	47.5	34.2	52.6	25.7
	85	49.2	49.2	53.3	43.5	59.3	35.3	47.2	47.2	50.6	42.2	56.1	34.0	44.9	44.9	47.6	40.8	52.6	32.5
	90	52.0	52.0	53.5	49.2	59.3	42.0	49.9	49.9	50.9	46.9	56.2	40.8	47.5	47.5	47.9	47.1	52.6	39.3
1440	75	48.6	40.4	54.5	31.5	60.4	21.8	46.1	39.1	51.6	30.2	57.1	20.7	43.3	37.7	48.4	28.8	53.3	19.2
	80	49.0	47.6	54.5	39.1	60.4	29.7	46.5	46.2	51.6	37.8	57.1	28.3	44.0	44.0	48.4	36.3	53.4	26.9
	85	51.3	51.3	54.5	46.5	60.4	37.3	49.1	49.1	51.7	45.2	57.1	36.0	46.7	46.7	48.5	43.2	53.4	34.5
	90	54.2	54.2	54.9	53.5	60.4	44.9	51.9	51.9	52.1	52.1	57.2	43.6	49.3	49.3	49.3	49.3	53.4	42.0
1600	75	49.6	42.8	55.4	32.9	61.3	22.4	46.9	41.4	52.4	31.5	57.8	21.0	44.0	39.3	49.1	30.1	53.9	19.5
	80	50.2	50.2	55.5	41.2	61.3	30.9	47.9	47.9	52.5	39.9	57.9	29.5	45.4	45.4	49.1	38.3	54.0	28.0
	85	53.1	53.1	55.6	49.2	61.3	39.3	50.8	50.8	52.6	47.0	57.9	37.9	48.1	48.1	49.3	44.6	54.0	36.4
	90	56.1	56.1	56.2	56.2	61.4	47.6	53.6	53.6	53.7	53.7	57.9	46.2	50.8	50.8	50.8	50.8	54.1	44.7
1760	75	50.4	44.9	56.2	34.2	62.0	22.8	47.7	42.8	53.1	32.9	58.4	21.4	44.7	40.6	49.6	31.4	54.4	19.8
	80	51.6	51.6	56.2	43.3	62.1	32.0	49.2	49.2	53.1	41.9	58.5	30.6	46.6	46.6	49.7	40.4	54.5	29.1
	85	54.7	54.7	56.4	50.6	62.1	41.2	52.2	52.2	53.4	48.4	58.5	39.8	49.4	49.4	50.0	48.8	54.5	38.2
	90	57.7	57.7	57.8	57.8	62.1	50.3	55.1	55.1	55.2	55.2	58.6	48.9	52.1	52.1	52.1	52.1	54.6	47.2
1920	75	51.1	45.9	56.9	35.5	62.7	23.1	48.3	43.9	53.7	34.1	59.0	21.7	45.2	43.8	50.1	32.6	54.8	20.1
	80	52.9	52.9	56.9	45.3	62.7	33.1	50.4	50.4	53.7	43.9	59.0	31.7	47.6	47.6	50.2	42.3	54.9	30.2
	85	56.1	56.1	57.2	54.4	62.7	43.1	53.4	53.4	54.0	52.9	59.1	41.6	50.4	50.4	50.6	50.6	54.9	40.0
	90	59.1	59.1	59.2	59.2	62.8	52.9	56.4	56.4	56.4	56.4	59.1	51.3	53.1	53.1	53.2	53.2	55.0	48.6
CFM	Ent DB (°F)	Ambient Temperature (°F)						Ambient Temperature (°F)						Ambient Temperature (°F)					
		115						120						125					
		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
1280	75	39.4	33.9	44.1	25.9	48.5	17.3	37.8	33.1	42.2	25.1	46.3	16.5	36.0	32.3	40.2	24.2	43.9	15.6
	80	39.9	39.9	44.1	32.6	48.5	24.1	38.5	38.5	42.2	31.8	46.3	23.3	37.0	37.0	40.2	30.9	44.0	22.4
	85	42.3	42.3	44.2	39.3	48.6	31.0	40.9	40.9	42.3	37.9	46.4	30.2	39.3	39.3	40.3	36.9	44.0	29.2
	90	44.7	44.7	44.7	44.7	48.6	37.7	43.1	43.1	43.2	43.2	46.4	36.8	41.4	41.4	41.5	41.5	44.1	36.0
1440	75	40.2	35.9	44.8	27.2	49.1	17.6	38.5	34.7	42.8	26.4	46.8	16.7	36.7	33.3	40.7	25.5	44.3	15.8
	80	41.3	41.3	44.8	34.7	49.1	25.3	39.9	39.9	42.8	33.8	46.8	24.4	38.3	38.3	40.8	33.0	44.4	23.5
	85	43.8	43.8	45.0	40.6	49.2	32.9	42.2	42.2	43.0	41.0	46.9	32.0	40.5	40.5	41.0	40.0	44.4	31.1
	90	46.2	46.2	46.3	46.3	49.2	40.4	44.5	44.5	44.6	44.6	46.9	39.5	42.6	42.6	42.7	42.7	44.5	38.6
1600	75	40.8	37.1	45.3	28.5	49.5	17.9	39.0	37.2	43.3	27.6	47.1	17.0	37.2	36.3	41.1	26.7	44.7	16.1
	80	42.5	42.5	45.4	36.7	49.6	26.4	41.0	41.0	43.3	35.9	47.2	25.5	39.3	39.3	41.2	35.0	44.8	24.6
	85	45.1	45.1	45.6	44.5	49.7	34.7	43.4	43.4	43.6	43.5	47.3	33.8	41.5	41.5	41.6	41.6	44.8	32.9
	90	47.5	47.5	47.5	47.5	49.7	43.0	45.6	45.6	45.7	45.7	47.3	41.4	43.6	43.6	43.7	43.7	44.9	40.1
1760	75	41.3	40.1	45.8	29.7	49.9	18.2	39.6	39.2	43.6	28.8	47.5	17.3	37.7	37.7	41.4	27.9	45.0	16.4
	80	43.6	43.6	45.8	38.7	50.0	27.4	41.9	41.9	43.7	37.8	47.5	26.5	40.1	40.1	41.5	36.3	45.1	25.7
	85	46.1	46.1	46.2	46.2	50.0	36.5	44.3	44.3	44.4	44.4	47.6	35.6	42.4	42.4	42.4	42.4	45.2	34.7
	90	48.5	48.5	48.6	48.6	50.1	44.5	46.5	46.5	46.6	46.6	47.7	44.2	44.4	44.4	44.4	44.4	45.3	43.2
1920	75	41.8	41.8	46.1	30.9	50.2	18.4	40.1	40.1	43.9	30.0	47.7	17.6	38.3	38.3	41.6	29.0	45.3	16.7
	80	44.4	44.4	46.2	40.2	50.2	28.5	42.7	42.7	44.1	38.7	47.8	27.6	40.8	40.8	41.8	38.2	45.3	26.6
	85	47.0	47.0	47.0	47.0	50.3	38.3	45.1	45.1	45.1	45.1	47.9	37.4	43.0	43.0	43.0	43.0	45.4	36.4
	90	49.4	49.4	49.4	49.4	51.6	47.9	47.3	47.3	47.3	47.3	48.1	46.5	45.2	45.2	45.3	45.3	45.6	45.4

Notes:

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

Table 5. Gross cooling capacities 5 tons - E/GDK060A3,4,W

CFM	Ent DB (°F)	Ambient Temperature (°F) 85						Ambient Temperature (°F) 95						Ambient Temperature (°F) 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
1600	75	55.9	45.1	62.9	35.6	69.9	25.0	52.9	43.5	59.6	34.0	66.2	23.7	49.6	41.8	55.9	32.3	62.1	22.0
	80	56.0	52.7	62.9	43.9	70.0	33.7	53.0	51.0	59.6	42.1	66.2	32.1	49.8	49.1	55.9	40.4	62.1	30.4
	85	57.5	57.5	62.8	51.9	70.0	42.0	55.1	55.1	59.6	50.3	66.3	40.5	52.4	52.4	55.9	48.5	62.2	38.7
	90	60.8	60.8	62.9	59.3	69.9	50.1	58.3	58.3	59.7	57.5	66.3	48.5	55.5	55.5	56.1	55.7	62.2	46.8
1800	75	57.3	48.0	64.4	37.4	71.3	25.8	54.1	46.4	60.9	35.8	67.4	24.2	50.7	44.6	57.0	34.0	63.2	22.5
	80	57.4	56.1	64.3	46.4	71.3	35.2	54.3	54.3	60.9	44.7	67.5	33.6	51.2	51.2	57.0	42.9	63.2	31.8
	85	59.9	59.9	64.2	55.5	71.3	44.5	57.3	57.3	60.8	53.1	67.5	42.9	54.4	54.4	57.1	50.0	63.2	40.9
	90	63.4	63.4	64.3	63.3	71.3	53.5	60.7	60.7	61.0	61.0	67.5	51.8	57.6	57.6	57.7	57.7	63.2	50.1
2000	75	58.4	50.8	65.5	39.1	72.4	26.4	55.1	48.5	61.9	37.4	68.4	24.7	51.6	45.6	57.9	35.6	64.0	23.0
	80	58.6	58.6	65.5	48.9	72.5	36.7	55.7	55.7	61.9	47.3	68.5	35.0	52.8	52.8	57.9	45.4	64.1	33.3
	85	62.0	62.0	65.4	57.0	72.4	46.9	59.2	59.2	61.9	56.5	68.5	45.0	56.2	56.2	58.0	54.5	64.1	43.1
	90	65.5	65.5	65.6	65.6	72.4	56.7	62.7	62.7	62.7	62.7	68.5	55.1	59.5	59.5	59.5	59.5	64.1	53.3
2200	75	59.3	52.1	66.4	40.7	73.4	26.8	56.0	51.1	62.7	39.0	69.3	25.2	52.4	49.1	58.6	36.9	64.7	23.4
	80	60.1	60.1	66.4	51.4	73.4	38.1	57.3	57.3	62.7	49.7	69.3	36.4	54.2	54.2	58.7	47.8	64.7	34.6
	85	63.7	63.7	66.4	61.2	73.3	48.9	60.9	60.9	62.7	59.4	69.3	47.2	57.7	57.7	58.7	57.4	64.8	45.3
	90	67.4	67.4	67.4	67.4	73.3	59.9	64.4	64.4	64.4	64.4	69.2	57.9	61.0	61.0	61.1	61.1	64.8	53.9
2400	75	60.1	55.2	67.2	42.3	74.1	27.3	56.7	53.3	63.4	40.2	69.9	25.6	53.0	51.3	59.2	38.3	65.3	23.8
	80	61.5	61.5	67.2	53.8	74.1	39.4	58.6	58.6	63.4	52.0	69.9	37.8	55.5	55.5	59.3	50.1	65.3	36.0
	85	65.3	65.3	67.0	64.1	74.1	51.0	62.3	62.3	63.3	62.2	70.0	49.3	59.0	59.0	59.2	59.2	65.4	47.5
	90	69.0	69.0	69.0	69.0	74.0	61.4	65.9	65.9	65.9	65.9	69.9	60.3	62.3	62.3	62.4	62.4	65.4	58.3
CFM	Ent DB (°F)	Ambient Temperature (°F) 115						Ambient Temperature (°F) 120						Ambient Temperature (°F) 125					
		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
1600	75	46.0	39.9	51.9	30.4	57.5	20.1	44.1	38.8	49.7	29.4	55.1	19.1	42.1	37.2	47.4	28.4	52.5	18.1
	80	46.3	46.3	51.9	38.5	57.6	28.5	44.7	44.7	49.7	37.5	55.1	27.5	43.0	43.0	47.5	36.4	52.5	26.5
	85	49.3	49.3	51.9	45.6	57.6	36.9	47.7	47.7	49.8	43.9	55.2	35.9	45.9	45.9	47.6	44.1	52.6	34.6
	90	52.3	52.3	52.4	52.4	57.7	44.9	50.6	50.6	50.6	50.6	55.2	43.9	48.7	48.7	48.7	48.7	52.7	42.9
1800	75	47.0	41.5	52.8	32.1	58.4	20.6	45.0	39.9	50.6	31.1	55.9	19.6	42.9	40.1	48.2	30.1	53.2	18.6
	80	48.1	48.1	52.9	41.0	58.5	30.0	46.4	46.4	50.6	40.0	55.9	29.0	44.6	44.6	48.3	39.0	53.3	28.0
	85	51.2	51.2	53.0	49.4	58.5	39.0	49.4	49.4	50.7	48.3	56.0	37.9	47.5	47.5	48.3	47.2	53.4	36.9
	90	54.2	54.2	54.3	54.3	58.6	48.2	52.4	52.4	52.4	52.4	56.1	47.2	50.4	50.4	50.4	50.4	53.4	45.1
2000	75	47.8	44.7	53.6	33.7	59.2	21.1	45.7	43.6	51.2	32.4	56.6	20.1	43.6	42.4	48.8	31.3	53.8	19.0
	80	49.6	49.6	53.6	43.5	59.2	31.4	47.8	47.8	51.3	42.5	56.6	30.4	45.9	45.9	48.9	41.4	53.9	29.3
	85	52.7	52.7	53.7	52.4	59.3	41.2	50.9	50.9	51.4	51.3	56.7	40.2	48.9	48.9	49.0	49.0	54.0	39.1
	90	55.9	55.9	55.9	55.9	59.3	50.0	53.9	53.9	53.9	53.9	56.8	49.6	51.8	51.8	51.8	51.8	54.0	48.4
2200	75	48.4	46.9	54.2	34.9	59.8	21.5	46.3	45.8	51.8	33.8	57.1	20.5	44.1	44.1	49.4	32.7	54.3	19.5
	80	50.8	50.8	54.3	45.9	59.8	32.7	49.0	49.0	51.9	44.1	57.1	31.7	47.0	47.0	49.5	42.1	54.3	30.7
	85	54.1	54.1	54.3	54.3	59.9	43.4	52.1	52.1	52.2	52.2	57.2	42.3	50.1	50.1	50.1	50.1	54.5	41.2
	90	57.2	57.2	57.3	57.3	59.9	53.5	55.2	55.2	55.2	55.2	57.2	52.3	52.9	52.9	53.0	53.0	54.4	51.1
2400	75	48.9	48.9	54.8	36.3	60.3	21.9	46.8	46.8	52.4	35.2	57.6	20.9	44.8	44.8	49.8	34.1	54.7	19.9
	80	51.9	51.9	54.8	46.5	60.2	34.0	50.0	50.0	52.5	46.4	57.5	32.4	48.0	48.0	49.9	45.2	54.7	31.3
	85	55.2	55.2	55.3	55.3	60.4	45.5	53.2	53.2	53.2	53.2	57.7	44.4	51.0	51.0	51.1	51.1	54.9	43.3
	90	58.4	58.4	58.4	58.4	60.3	56.1	56.2	56.2	56.3	56.3	57.5	55.0	53.9	53.9	54.0	54.0	54.7	53.8

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.

Evaporator Fan Performance

Table 6. Belt drive evaporator fan performance - 3 tons cooling only units - EDK036A3, 4, W - downflow airflow

	Available External Static Pressure (Inches of Water Gauge)																			
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	1-hp standard motor and pulley																			
960	—	—	—	—	587	0.17	645	0.21	698	0.25	747	0.30	792	0.34	835	0.38	875	0.43	913	0.48
1080	—	—	—	—	612	0.21	669	0.25	720	0.30	768	0.34	813	0.39	855	0.44	895	0.49	933	0.54
1200	—	—	—	—	639	0.25	693	0.30	743	0.34	790	0.39	834	0.45	876	0.50	915	0.55	953	0.6
1320	—	—	608	0.25	666	0.30	719	0.35	768	0.40	813	0.45	857	0.51	898	0.56	937	0.62	974	0.68
1440	581	0.24	642	0.30	697	0.35	748	0.41	795	0.46	840	0.52	882	0.58	922	0.64	960	0.70	997	0.76

	Available External Static Pressure (Inches of Water Gauge)									
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	2-hp oversized motor and pulley									
960	950	0.53	984	0.58	1018	0.63	1050	0.68	1081	0.73
1080	969	0.59	1004	0.64	1038	0.70	1070	0.75	1101	0.81
1200	989	0.66	1024	0.72	1057	0.77	1089	0.83	1121	0.89
1320	1010	0.74	1044	0.80	1077	0.86	1109	0.92	1140	0.98
1440	1032	0.82	1066	0.89	1099	0.95	1131	1.02	1162	1.08

Notes:

1. For Standard Evaporator Fan Speed (rpm), refer table Standard motor and drive/fan.
2. For Oversized Evaporator Fan Speed (rpm), refer table Oversized motor and drive/fan speed.
3. 1-hp fan motor heat (MBh) = 2.8328 x Fan bhp.+ 0.4714, 2-hp fan motor heat (MBh) = 2.7146 x Fan bhp. + 0.816.
4. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
6. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

Table 7. Belt drive evaporator fan performance - 3 tons cooling only units - EDK036A3, 4, W - horizontal airflow

	Available External Static Pressure (Inches of Water Gauge)																			
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	1-hp standard motor and pulley																			
960	—	—	—	—	596	0.18	653	0.22	706	0.26	754	0.3	799	0.35	841	0.39	881	0.44	919	0.49
1080	—	—	—	—	623	0.21	678	0.26	729	0.3	776	0.35	821	0.4	862	0.45	902	0.50	940	0.55
1200	—	—	591	0.21	650	0.26	703	0.31	753	0.35	799	0.4	843	0.46	884	0.51	923	0.56	961	0.62
1320	—	—	622	0.26	678	0.31	730	0.36	778	0.41	824	0.47	866	0.52	907	0.58	945	0.63	982	0.69
1440	599	0.26	659	0.31	712	0.37	762	0.42	809	0.48	852	0.54	894	0.60	934	0.66	971	0.72	1008	0.78

	Available External Static Pressure (Inches of Water Gauge)									
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	2-hp oversized motor and pulley									
960	955	0.53	989	0.58	1023	0.64	1055	0.69	1086	0.74
1080	976	0.60	1010	0.65	1043	0.71	1076	0.76	1107	0.82
1200	996	0.67	1031	0.73	1064	0.79	1096	0.84	1127	0.90
1320	1018	0.75	1052	0.81	1085	0.87	1116	0.93	1147	1.00
1440	1042	0.84	1076	0.91	1109	0.97	1140	1.04	1171	1.10

Notes:

1. For Standard Evaporator Fan Speed (rpm), refer table Standard motor and drive/fan.
2. For Oversized Evaporator Fan Speed (rpm), refer table Oversized motor and drive/fan speed.
3. 1-hp fan motor heat (MBh) = 2.8328 x Fan bhp.+ 0.4714, 2-hp fan motor heat (MBh) = 2.7146 x Fan bhp. + 0.816.
4. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
6. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

Table 8. Belt drive evaporator fan performance - 3 tons with medium gas heat - GDK036A3, 4, W*M - downflow airflow

Available External Static Pressure (Inches of Water Gauge)																				
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp standard motor and pulley																				
960	—	—	—	—	607	0.18	663	0.22	714	0.27	762	0.31	806	0.35	848	0.4	887	0.45	925	0.49
1080	—	—	—	—	636	0.23	690	0.27	740	0.31	787	0.36	831	0.41	872	0.46	911	0.51	948	0.56
1200	—	—	610	0.23	667	0.27	719	0.32	768	0.37	813	0.42	856	0.47	896	0.52	935	0.58	972	0.63
1320	584	0.23	644	0.28	699	0.33	749	0.38	796	0.43	840	0.49	882	0.54	922	0.60	960	0.66	996	0.71
1440	626	0.28	682	0.34	734	0.39	783	0.45	828	0.51	871	0.56	911	0.62	950	0.68	987	0.75	1023	0.81

Available External Static Pressure (Inches of Water Gauge)										
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
2-hp oversized motor and pulley										
960	961	0.54	995	0.59	1028	0.64	1060	0.70	1091	0.75
1080	984	0.61	1018	0.67	1051	0.72	1083	0.78	1114	0.83
1200	1007	0.69	1041	0.75	1074	0.80	1105	0.86	1136	0.92
1320	1031	0.77	1065	0.83	1097	0.89	1128	0.96	1159	1.02
1440	1057	0.87	1090	0.93	1122	1.00	1153	1.06	1184	1.13

Notes:

1. For Standard Evaporator Fan Speed (rpm), refer table Standard motor and drive/fan.
2. For Oversized Evaporator Fan Speed (rpm), refer table Oversized motor and drive/fan speed.
3. 1-hp fan motor heat (MBh) = 2.8328 x Fan bhp.+ 0.4714, 2-hp fan motor heat (MBh) = 2.7146 x Fan bhp. + 0.816.
4. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
6. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

Table 9. Belt drive evaporator fan performance - 3 tons with medium gas heat - GDK036A3, 4, W*M - horizontal airflow

	Available External Static Pressure (Inches of Water Gauge)																			
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	1-hp standard motor and pulley																			
960	—	—	—	—	621	0.19	676	0.23	726	0.28	773	0.32	816	0.36	858	0.41	897	0.46	934	0.51
1080	—	—	594	0.19	652	0.24	705	0.28	754	0.33	800	0.37	843	0.42	883	0.47	922	0.52	959	0.57
1200	—	—	630	0.24	685	0.29	736	0.34	783	0.39	828	0.44	870	0.49	910	0.54	948	0.60	984	0.65
1320	609	0.25	667	0.30	720	0.35	768	0.40	814	0.45	857	0.51	898	0.56	937	0.62	975	0.68	1010	0.74
1440	655	0.31	709	0.37	759	0.42	806	0.48	850	0.54	892	0.59	931	0.65	969	0.71	1006	0.78	1040	0.84

	Available External Static Pressure (Inches of Water Gauge)									
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	2-hp oversized motor and pulley									
960	969	0.55	1003	0.61	1036	0.66	1068	0.71	1098	0.76
1080	994	0.63	1028	0.68	1060	0.74	1092	0.79	1122	0.85
1200	1019	0.71	1052	0.76	1085	0.82	1116	0.88	1146	0.94
1320	1045	0.80	1078	0.86	1110	0.92	1141	0.98	1171	1.05
1440	1074	0.90	1107	0.97	1138	1.03	1169	1.10	1199	1.17

Notes:

1. For Standard Evaporator Fan Speed (rpm), refer table Standard motor and drive/fan.
2. For Oversized Evaporator Fan Speed (rpm), refer table Oversized motor and drive/fan speed.
3. 1-hp fan motor heat (MBh) = 2.8328 x Fan bhp.+ 0.4714, 2-hp fan motor heat (MBh) = 2.7146 x Fan bhp. + 0.816.
4. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
6. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

Table 10. Belt drive evaporator fan performance - 3 tons with low gas heat - GDK036A3, 4, W*L - downflow airflow

Available External Static Pressure (Inches of Water Gauge)																				
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp standard motor and pulley																				
960	—	—	—	—	605	0.18	661	0.22	713	0.27	760	0.31	805	0.35	847	0.40	886	0.44	924	0.49
1080	—	—	—	—	634	0.22	689	0.27	739	0.31	785	0.36	829	0.41	870	0.46	910	0.51	947	0.56
1200	—	—	607	0.22	664	0.27	717	0.32	765	0.37	811	0.42	854	0.47	894	0.52	933	0.58	970	0.63
1320	581	0.22	641	0.27	696	0.32	747	0.38	794	0.43	838	0.48	880	0.54	920	0.60	958	0.65	994	0.71
1440	622	0.28	679	0.33	731	0.39	780	0.45	825	0.50	868	0.56	909	0.62	948	0.68	985	0.74	1021	0.80

Available External Static Pressure (Inches of Water Gauge)										
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
2-hp oversized motor and pulley										
960	960	0.54	994	0.59	1027	0.64	1059	0.69	1090	0.75
1080	983	0.61	1017	0.66	1050	0.72	1082	0.77	1113	0.83
1200	1005	0.69	1040	0.74	1072	0.80	1104	0.86	1135	0.92
1320	1029	0.77	1063	0.83	1095	0.89	1127	0.95	1157	1.02
1440	1055	0.87	1088	0.93	1120	0.99	1152	1.06	1182	1.13

Notes:

1. For Standard Evaporator Fan Speed (rpm), refer table Standard motor and drive/fan.
2. For Oversized Evaporator Fan Speed (rpm), refer table Oversized motor and drive/fan speed.
3. 1-hp fan motor heat (MBh) = 2.8328 x Fan bhp.+ 0.4714, 2-hp fan motor heat (MBh) = 2.7146 x Fan bhp. + 0.816.
4. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
6. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

Table 11. Belt drive evaporator fan performance - 3 tons with low gas heat - GDK036A3, 4, W*L - horizontal airflow

	Available External Static Pressure (Inches of Water Gauge)																			
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	1-hp standard motor and pulley																			
960	—	—	—	—	618	0.19	673	0.23	724	0.27	771	0.32	814	0.36	856	0.41	895	0.45	932	0.50
1080	—	—	591	0.19	649	0.24	702	0.28	751	0.33	797	0.37	840	0.42	881	0.47	920	0.52	957	0.57
1200	—	—	626	0.24	681	0.29	733	0.33	780	0.38	825	0.43	867	0.49	907	0.54	945	0.59	981	0.65
1320	604	0.24	662	0.29	715	0.34	764	0.40	810	0.45	854	0.50	895	0.56	934	0.62	971	0.67	1007	0.73
1440	649	0.30	704	0.36	754	0.42	801	0.47	845	0.53	887	0.59	927	0.65	965	0.71	1002	0.77	1037	0.83

	Available External Static Pressure (Inches of Water Gauge)									
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	2-hp oversized motor and pulley									
960	976	0.56	1010	0.61	1042	0.67	1074	0.72	1104	0.77
1080	1001	0.64	1035	0.69	1067	0.75	1099	0.80	1129	0.86
1200	1027	0.72	1060	0.78	1093	0.84	1124	0.90	1154	0.96
1320	1054	0.81	1086	0.87	1118	0.94	1149	1.00	1179	1.06
1440	1081	0.92	1113	0.98	1144	1.05	1175	1.11	1204	1.18

Notes:

1. For Standard Evaporator Fan Speed (rpm), refer table Standard motor and drive/fan.
2. For Oversized Evaporator Fan Speed (rpm), refer table Oversized motor and drive/fan speed.
3. 1-hp fan motor heat (MBh) = 2.8328 x Fan bhp.+ 0.4714, 2-hp fan motor heat (MBh) = 2.7146 x Fan bhp. + 0.816.
4. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
6. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

Table 12. Belt drive evaporator fan performance - 4 tons cooling only units - EDK048A3, 4, W - downflow airflow

	Available External Static Pressure (Inches of Water Gauge)																			
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	1-hp standard motor and pulley																			
1280	—	—	—	—	674	0.27	726	0.31	774	0.36	819	0.40	861	0.45	902	0.50	940	0.55	977	0.60
1440	—	—	662	0.29	715	0.33	765	0.38	811	0.44	854	0.49	895	0.54	935	0.59	972	0.65	1008	0.70
1600	653	0.31	708	0.36	758	0.42	805	0.47	849	0.53	891	0.58	931	0.64	969	0.70	1005	0.76	1041	0.82
1760	695	0.38	747	0.44	795	0.49	840	0.55	882	0.61	923	0.68	962	0.74	999	0.80	1034	0.86	1069	0.93
1920	752	0.49	801	0.55	846	0.62	889	0.69	929	0.75	968	0.82	1005	0.89	1041	0.95	1076	1.02	1109	1.09

	Available External Static Pressure (Inches of Water Gauge)									
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	2-hp oversized motor and pulley									
1280	1012	0.65	1046	0.71	1078	0.76	1110	0.81	1141	0.87
1440	1042	0.76	1076	0.82	1108	0.87	1139	0.93	1170	0.99
1600	1074	0.88	1107	0.94	1139	1.00	1169	1.06	1199	1.13
1760	1102	0.99	1134	1.05	1165	1.12	1195	1.19	1225	1.25
1920	1141	1.16	1172	1.23	1202	1.30	1232	1.37	1261	1.44

Notes:

1. For Standard Evaporator Fan Speed (rpm), refer table Standard motor and drive/fan.
2. For Oversized Evaporator Fan Speed (rpm), refer table Oversized motor and drive/fan speed.
3. 1-hp fan motor heat (MBh) = 2.8328 x Fan bhp.+ 0.4714, 2-hp fan motor heat (MBh) = 2.7146 x Fan bhp. + 0.816.
4. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
6. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

Table 13. Belt drive evaporator fan performance - 4 tons cooling only units - EDK048A3, 4, W - horizontal airflow

Available External Static Pressure (Inches of Water Gauge)																				
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp standard motor and pulley																				
1280	—	—	632	0.23	687	0.28	738	0.32	785	0.37	830	0.42	872	0.46	911	0.51	949	0.56	986	0.61
1440	623	0.25	679	0.30	731	0.35	779	0.40	824	0.45	867	0.50	908	0.56	946	0.61	983	0.66	1019	0.72
1600	675	0.33	728	0.38	777	0.44	822	0.49	866	0.55	907	0.61	946	0.66	983	0.72	1019	0.78	1054	0.84
1760	718	0.40	768	0.46	815	0.52	859	0.58	900	0.64	940	0.70	978	0.76	1014	0.82	1050	0.89	1084	0.95
1920	781	0.53	828	0.59	871	0.66	913	0.72	952	0.79	990	0.86	1027	0.93	1062	0.99	1095	1.06	1128	1.13

Available External Static Pressure (Inches of Water Gauge)										
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
2-hp oversized motor and pulley										
1280	1021	0.67	1054	0.72	1087	0.77	1118	0.83	1148	0.88
1440	1053	0.78	1086	0.83	1118	0.89	1149	0.95	1179	1.01
1600	1087	0.90	1120	0.96	1151	1.03	1182	1.09	1211	1.15
1760	1116	1.02	1148	1.08	1179	1.15	1209	1.21	1238	1.28
1920	1160	1.20	1191	1.27	1221	1.34	1250	1.42	1279	1.49

Notes:

1. For Standard Evaporator Fan Speed (rpm), refer table Standard motor and drive/fan.
2. For Oversized Evaporator Fan Speed (rpm), refer table Oversized motor and drive/fan speed.
3. 1-hp fan motor heat (MBh) = 2.8328 x Fan bhp.+ 0.4714, 2-hp fan motor heat (MBh) = 2.7146 x Fan bhp. + 0.816.
4. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
6. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

Table 14. Belt drive evaporator fan performance - 4 tons with medium gas heat - GDK048A3, 4, W*M - downflow airflow

Available External Static Pressure (Inches of Water Gauge)																				
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp standard motor and pulley																				
1280	—	—	627	0.23	683	0.27	734	0.32	781	0.36	826	0.41	868	0.46	908	0.51	946	0.56	983	0.61
1440	—	—	674	0.30	726	0.34	774	0.40	820	0.45	863	0.50	904	0.55	942	0.60	980	0.66	1015	0.71
1600	667	0.32	721	0.38	770	0.43	816	0.49	860	0.54	901	0.60	941	0.66	978	0.71	1015	0.77	1049	0.83
1760	709	0.39	760	0.45	807	0.51	852	0.57	894	0.63	934	0.69	972	0.75	1009	0.81	1044	0.88	1078	0.94
1920	771	0.51	818	0.58	862	0.64	904	0.71	944	0.78	982	0.84	1019	0.91	1054	0.98	1088	1.05	1121	1.12

Available External Static Pressure (Inches of Water Gauge)										
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
2-hp oversized motor and pulley										
1280	1018	0.66	1051	0.71	1084	0.77	1115	0.82	1146	0.88
1440	1050	0.77	1083	0.83	1115	0.89	1146	0.94	1176	1.00
1600	1083	0.89	1116	0.95	1147	1.02	1178	1.08	1207	1.14
1760	1111	1.00	1143	1.07	1174	1.14	1204	1.20	1233	1.27
1920	1153	1.19	1184	1.26	1214	1.33	1244	1.40	1272	1.47

Notes:

1. For Standard Evaporator Fan Speed (rpm), refer table Standard motor and drive/fan.
2. For Oversized Evaporator Fan Speed (rpm), refer table Oversized motor and drive/fan speed.
3. 1-hp fan motor heat (MBh) = 2.8328 x Fan bhp.+ 0.4714, 2-hp fan motor heat (MBh) = 2.7146 x Fan bhp. + 0.816.
4. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
6. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

Table 15. Belt drive evaporator fan performance - 4 tons with medium gas heat - GDK048A3, 4, W*M - horizontal airflow

Available External Static Pressure (Inches of Water Gauge)																				
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp standard motor and pulley																				
1280	—	—	654	0.25	707	0.29	756	0.34	802	0.39	846	0.43	887	0.48	926	0.53	963	0.58	999	0.63
1440	650	0.27	704	0.32	754	0.37	801	0.42	845	0.48	887	0.53	926	0.58	964	0.64	1001	0.69	1036	0.75
1600	707	0.36	757	0.41	804	0.47	848	0.53	890	0.58	930	0.64	968	0.70	1005	0.76	1040	0.82	1074	0.88
1760	753	0.44	801	0.50	845	0.56	888	0.62	928	0.68	966	0.74	1003	0.80	1039	0.87	1073	0.93	1106	1.00
1920	821	0.58	865	0.65	907	0.71	947	0.78	985	0.85	1021	0.92	1057	0.98	1091	1.05	1124	1.12	1155	1.19

Available External Static Pressure (Inches of Water Gauge)										
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
2-hp oversized motor and pulley										
1280	1033	0.69	1067	0.74	1099	0.79	1130	0.85	1160	0.90
1440	1069	0.80	1102	0.86	1133	0.92	1164	0.98	1193	1.04
1600	1107	0.94	1139	1.00	1169	1.06	1199	1.13	1228	1.19
1760	1138	1.06	1170	1.13	1200	1.19	1229	1.26	1258	1.33
1920	1186	1.26	1217	1.33	1246	1.40	1275	1.48	1302	1.55

Notes:

1. For Standard Evaporator Fan Speed (rpm), refer table Standard motor and drive/fan.
2. For Oversized Evaporator Fan Speed (rpm), refer table Oversized motor and drive/fan speed.
3. 1-hp fan motor heat (MBh) = 2.8328 x Fan bhp.+ 0.4714, 2-hp fan motor heat (MBh) = 2.7146 x Fan bhp. + 0.816.
4. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
6. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

Table 16. Belt drive evaporator fan performance - 4 tons with low gas heat - GDK048A3, 4, W*L - downflow airflow

Available External Static Pressure (Inches of Water Gauge)																				
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp standard motor and pulley																				
1280	—	—	624	0.23	680	0.27	731	0.32	779	0.36	824	0.41	866	0.46	906	0.51	944	0.56	981	0.61
1440	—	—	670	0.29	723	0.34	771	0.39	817	0.44	860	0.49	901	0.55	940	0.60	977	0.66	1013	0.71
1600	663	0.32	717	0.37	767	0.43	813	0.48	857	0.54	898	0.59	938	0.65	976	0.71	1012	0.77	1047	0.83
1760	705	0.39	756	0.45	803	0.50	848	0.56	890	0.62	930	0.68	968	0.75	1005	0.81	1041	0.87	1075	0.93
1920	765	0.51	813	0.57	857	0.64	899	0.70	939	0.77	978	0.84	1015	0.90	1050	0.97	1084	1.04	1117	1.11

Available External Static Pressure (Inches of Water Gauge)										
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
2-hp oversized motor and pulley										
1280	1016	0.66	1050	0.71	1082	0.77	1114	0.82	1144	0.88
1440	1048	0.77	1081	0.82	1113	0.88	1144	0.94	1174	1.00
1600	1081	0.89	1113	0.95	1145	1.01	1175	1.08	1205	1.14
1760	1108	1.00	1140	1.06	1171	1.13	1201	1.20	1231	1.26
1920	1149	1.18	1181	1.25	1211	1.32	1240	1.39	1269	1.46

Notes:

1. For Standard Evaporator Fan Speed (rpm), refer table Standard motor and drive/fan.
2. For Oversized Evaporator Fan Speed (rpm), refer table Oversized motor and drive/fan speed.
3. 1-hp fan motor heat (MBh) = 2.8328 x Fan bhp.+ 0.4714, 2-hp fan motor heat (MBh) = 2.7146 x Fan bhp. + 0.816.
4. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
6. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

Table 17. Belt drive evaporator fan performance - 4 tons with low gas heat - GDK048A3, 4, W*L - horizontal airflow

Available External Static Pressure (Inches of Water Gauge)																				
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp standard motor and pulley																				
1280	—	—	649	0.25	703	0.29	752	0.34	799	0.38	842	0.43	884	0.48	923	0.53	960	0.58	996	0.63
1440	644	0.27	699	0.32	749	0.37	796	0.42	841	0.47	883	0.52	922	0.58	960	0.63	997	0.69	1032	0.74
1600	700	0.35	751	0.41	798	0.46	843	0.52	885	0.58	925	0.63	963	0.69	1000	0.75	1036	0.81	1070	0.87
1760	745	0.43	794	0.49	839	0.55	881	0.61	922	0.67	961	0.73	998	0.80	1034	0.86	1068	0.92	1101	0.99
1920	813	0.57	857	0.64	899	0.70	940	0.77	978	0.84	1015	0.90	1050	0.97	1084	1.04	1117	1.11	1150	1.18

Available External Static Pressure (Inches of Water Gauge)										
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
2-hp oversized motor and pulley										
1280	1031	0.68	1064	0.74	1096	0.79	1127	0.84	1157	0.90
1440	1066	0.80	1098	0.86	1130	0.91	1161	0.97	1190	1.03
1600	1103	0.93	1134	0.99	1165	1.05	1196	1.12	1225	1.18
1760	1134	1.05	1165	1.12	1195	1.18	1225	1.25	1254	1.32
1920	1181	1.25	1211	1.32	1240	1.39	1269	1.46	1297	1.54

Notes:

1. For Standard Evaporator Fan Speed (rpm), refer table Standard motor and drive/fan.
2. For Oversized Evaporator Fan Speed (rpm), refer table Oversized motor and drive/fan speed.
3. 1-hp fan motor heat (MBh) = 2.8328 x Fan bhp.+ 0.4714, 2-hp fan motor heat (MBh) = 2.7146 x Fan bhp. + 0.816.
4. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
6. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

Table 18. Belt drive evaporator fan performance - 5 tons cooling only units - EDK060A3, 4, W - downflow airflow

Available External Static Pressure (Inches of Water Gauge)																				
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	1-hp standard motor and pulley																			
1600	—	—	712	0.37	762	0.42	808	0.48	852	0.53	894	0.59	933	0.64	971	0.70	1007	0.76	1042	0.82
1800	722	0.42	772	0.48	818	0.54	862	0.61	904	0.67	943	0.73	981	0.79	1017	0.86	1052	0.92	1086	0.99
2000	787	0.56	833	0.62	876	0.69	918	0.76	957	0.83	995	0.90	1031	0.97	1066	1.04	1099	1.11	1132	1.18
2200	852	0.72	895	0.79	935	0.87	974	0.94	1012	1.02	1048	1.09	1082	1.17	1116	1.25	1148	1.32	1180	1.40
2400	917	0.91	957	0.99	995	1.07	1032	1.15	1068	1.23	1102	1.32	1135	1.40	1167	1.48	1198	1.57	1229	1.65

Available External Static Pressure (Inches of Water Gauge)										
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	1-hp standard motor and pulley				2-hp oversized motor and pulley					
1600	1076	0.88	1109	0.94	1140	1.00	1171	1.07	1201	1.13
1800	1119	1.05	1150	1.12	1181	1.19	1211	1.26	1240	1.32
2000	1164	1.25	1194	1.32	1224	1.40	1254	1.47	1282	1.55
2200	1210	1.48	1240	1.56	1269	1.64	1297	1.72	1325	1.80
2400	1258	1.73	1287	1.82	1315	1.90	1343	1.99	1370	2.08

Notes:

1. For Standard Evaporator Fan Speed (rpm), refer table Standard motor and drive/fan.
2. For Oversized Evaporator Fan Speed (rpm), refer table Oversized motor and drive/fan speed.
3. 1-hp fan motor heat (MBh) = 2.8328 x Fan bhp.+ 0.4714, 2-hp fan motor heat (MBh) = 2.7146 x Fan bhp. + 0.816.
4. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
6. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

Table 19. Belt drive evaporator fan performance - 5 tons cooling only units - EDK060A3, 4, W - horizontal airflow

Available External Static Pressure (Inches of Water Gauge)																				
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	1-hp standard motor and pulley																			
1600	—	—	726	0.38	775	0.44	821	0.49	864	0.55	905	0.60	944	0.66	981	0.72	1017	0.78	1052	0.84
1800	739	0.44	788	0.50	833	0.56	876	0.63	917	0.69	956	0.75	993	0.81	1029	0.88	1064	0.94	1097	1.01
2000	806	0.59	851	0.65	894	0.72	934	0.79	973	0.86	1010	0.93	1046	1.00	1080	1.07	1113	1.14	1145	1.21
2200	874	0.76	916	0.83	956	0.91	994	0.98	1031	1.06	1066	1.13	1100	1.21	1133	1.29	1165	1.36	1196	1.44
2400	943	0.96	982	1.04	1019	1.12	1055	1.21	1090	1.29	1123	1.37	1156	1.45	1187	1.54	1218	1.62	1248	1.70

Available External Static Pressure (Inches of Water Gauge)										
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	1-hp standard motor and pulley				2-hp oversized motor and pulley					
1600	1085	0.90	1117	0.96	1149	1.02	1179	1.08	1209	1.15
1800	1129	1.08	1161	1.14	1191	1.21	1221	1.28	1250	1.35
2000	1177	1.28	1207	1.35	1237	1.43	1265	1.50	1294	1.58
2200	1226	1.52	1255	1.60	1284	1.68	1312	1.76	1339	1.84
2400	1277	1.79	1305	1.87	1333	1.96	1360	2.04	1387	2.13

Notes:

1. For Standard Evaporator Fan Speed (rpm), refer table Standard motor and drive/fan.
2. For Oversized Evaporator Fan Speed (rpm), refer table Oversized motor and drive/fan speed.
3. 1-hp fan motor heat (MBh) = 2.8328 x Fan bhp.+ 0.4714, 2-hp fan motor heat (MBh) = 2.7146 x Fan bhp. + 0.816.
4. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
6. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

Table 20. Belt drive evaporator fan performance - 5 tons with medium gas heat - GDK060A3, 4, W*M - downflow airflow

Available External Static Pressure (Inches of Water Gauge)																				
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp standard motor and pulley																				
1600	—	—	742	0.40	789	0.45	834	0.51	877	0.56	917	0.62	956	0.68	992	0.74	1028	0.80	1062	0.86
1800	760	0.47	807	0.53	851	0.59	893	0.65	933	0.71	972	0.78	1008	0.84	1044	0.91	1078	0.97	1111	1.04
2000	830	0.62	873	0.69	915	0.76	954	0.82	992	0.89	1028	0.96	1063	1.03	1097	1.10	1130	1.17	1161	1.25
2200	900	0.80	940	0.88	979	0.95	1016	1.03	1052	1.10	1086	1.18	1120	1.26	1152	1.33	1183	1.41	1214	1.49
2400	970	1.02	1008	1.10	1044	1.18	1079	1.26	1113	1.34	1146	1.43	1178	1.51	1209	1.59	1239	1.68	1268	1.76

Available External Static Pressure (Inches of Water Gauge)										
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	1-hp standard motor and pulley		2-hp oversized motor and pulley							
1600	1095	0.92	1127	0.98	1158	1.04	1188	1.10	1218	1.17
1800	1143	1.10	1174	1.17	1204	1.24	1233	1.31	1262	1.38
2000	1192	1.32	1222	1.39	1251	1.47	1280	1.54	1308	1.62
2200	1244	1.57	1273	1.65	1301	1.73	1328	1.81	1355	1.89
2400	1297	1.85	1325	1.93	1352	2.02	1379	2.10	1405	2.19

Notes:

1. For Standard Evaporator Fan Speed (rpm), refer table Standard motor and drive/fan.
2. For Oversized Evaporator Fan Speed (rpm), refer table Oversized motor and drive/fan speed.
3. 1-hp fan motor heat (MBh) = 2.8328 x Fan bhp.+ 0.4714, 2-hp fan motor heat (MBh) = 2.7146 x Fan bhp. + 0.816.
4. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
6. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

Table 21. Belt drive evaporator fan performance - 5 tons with medium gas heat - GDK060A3, 4, W*M - horizontal airflow

	Available External Static Pressure (Inches of Water Gauge)																			
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	1-hp standard motor and pulley																			
1600	705	0.36	755	0.41	802	0.47	846	0.52	888	0.58	928	0.64	966	0.69	1002	0.75	1037	0.81	1071	0.87
1800	776	0.49	822	0.55	865	0.61	907	0.67	946	0.74	984	0.80	1020	0.86	1055	0.93	1089	0.99	1121	1.06
2000	848	0.65	891	0.72	931	0.78	970	0.85	1007	0.92	1043	0.99	1077	1.06	1111	1.13	1143	1.20	1174	1.28
2200	921	0.84	961	0.92	999	0.99	1035	1.07	1070	1.14	1104	1.22	1137	1.30	1169	1.37	1199	1.45	1229	1.53
2400	995	1.07	1032	1.15	1067	1.23	1101	1.32	1134	1.40	1167	1.48	1198	1.56	1228	1.65	1258	1.73	1287	1.82

	Available External Static Pressure (Inches of Water Gauge)									
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	2-hp oversized motor and pulley									
1600	1104	0.93	1136	1.00	1167	1.06	1197	1.12	1226	1.19
1800	1153	1.13	1184	1.19	1214	1.26	1243	1.33	1271	1.40
2000	1205	1.35	1234	1.42	1263	1.50	1292	1.57	—	—
2200	1259	1.61	1287	1.69	—	—	—	—	—	—
2400	—	—	—	—	—	—	—	—	—	—

Notes:

1. For Standard Evaporator Fan Speed (rpm), refer table Standard motor and drive/fan.
2. For Oversized Evaporator Fan Speed (rpm), refer table Oversized motor and drive/fan speed.
3. 1-hp fan motor heat (MBh) = 2.8328 x Fan bhp.+ 0.4714, 2-hp fan motor heat (MBh) = 2.7146 x Fan bhp. + 0.816.
4. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
6. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

Table 22. Belt drive evaporator fan performance - 5 tons with low gas heat - GDK060A3, 4, W*L - downflow airflow

Available External Static Pressure (Inches of Water Gauge)																				
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	1-hp standard motor and pulley																			
1600	—	—	721	0.38	770	0.43	816	0.49	860	0.54	901	0.60	940	0.65	978	0.71	1014	0.77	1048	0.83
1800	734	0.44	783	0.50	828	0.56	872	0.62	913	0.68	952	0.74	989	0.81	1025	0.87	1060	0.94	1094	1.00
2000	800	0.58	845	0.64	888	0.71	929	0.78	968	0.85	1005	0.92	1041	0.99	1075	1.06	1109	1.13	1141	1.20
2200	867	0.74	909	0.82	949	0.89	987	0.97	1024	1.04	1060	1.12	1094	1.20	1127	1.27	1159	1.35	1190	1.43
2400	933	0.94	973	1.02	1010	1.10	1047	1.19	1082	1.27	1116	1.35	1148	1.43	1180	1.52	1211	1.60	1241	1.68

Available External Static Pressure (Inches of Water Gauge)										
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	1-hp standard motor and pulley				2-hp oversized motor and pulley					
1600	1082	0.89	1114	0.95	1146	1.02	1176	1.08	1206	1.14
1800	1126	1.07	1158	1.14	1188	1.20	1218	1.27	1247	1.34
2000	1172	1.27	1203	1.35	1233	1.42	1262	1.49	1290	1.57
2200	1220	1.50	1250	1.58	1279	1.66	1307	1.74	1334	1.82
2400	1270	1.77	1299	1.85	1326	1.94	1354	2.02	1380	2.11

Notes:

1. For Standard Evaporator Fan Speed (rpm), refer table Standard motor and drive/fan.
2. For Oversized Evaporator Fan Speed (rpm), refer table Oversized motor and drive/fan speed.
3. 1-hp fan motor heat (MBh) = 2.8328 x Fan bhp.+ 0.4714, 2-hp fan motor heat (MBh) = 2.7146 x Fan bhp. + 0.816.
4. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
6. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

Table 23. Belt drive evaporator fan performance - 5 tons with low gas heat - GDK060A3, 4, W*L - horizontal airflow

	Available External Static Pressure (Inches of Water Gauge)																			
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	1-hp standard motor and pulley																			
1600	706	0.36	749	0.41	796	0.46	841	0.52	883	0.57	923	0.63	961	0.69	998	0.75	1033	0.80	1067	0.86
1800	768	0.48	815	0.54	859	0.60	900	0.66	940	0.73	978	0.79	1014	0.85	1049	0.92	1083	0.98	1116	1.05
2000	839	0.63	882	0.70	923	0.77	962	0.84	1000	0.91	1036	0.98	1071	1.05	1104	1.12	1137	1.19	1168	1.26
2200	911	0.82	951	0.90	990	0.97	1026	1.05	1062	1.12	1096	1.20	1129	1.28	1161	1.35	1192	1.43	1222	1.51
2400	984	1.05	1021	1.13	1057	1.21	1091	1.29	1125	1.37	1157	1.46	1189	1.54	1219	1.62	1249	1.71	1278	1.79

	Available External Static Pressure (Inches of Water Gauge)									
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	1-hp standard motor and pulley		2-hp oversized motor and pulley							
1600	1100	0.93	1132	0.99	1163	1.05	1193	1.11	1222	1.18
1800	1148	1.11	1179	1.18	1209	1.25	1238	1.32	1266	1.39
2000	1199	1.33	1229	1.41	1258	1.48	1286	1.56	—	—
2200	1252	1.59	1280	1.67	1309	1.75	—	—	—	—
2400	1307	1.88	—	—	—	—	—	—	—	—

Notes:

1. For Standard Evaporator Fan Speed (rpm), refer table Standard motor and drive/fan.
2. For Oversized Evaporator Fan Speed (rpm), refer table Oversized motor and drive/fan speed.
3. 1-hp fan motor heat (MBh) = 2.8328 x Fan bhp.+ 0.4714, 2-hp fan motor heat (MBh) = 2.7146 x Fan bhp. + 0.816.
4. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
6. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.

Table 24. Standard motor and drive/fan speed (rpm)

Tons	Unit Model Number	Fan Sheave	6 Turns Open	5 Turns Open	4 Turns Open	3 Turns Open	2 Turns Open	1 Turn Open	Closed
3	E/GDK036A3,4,W	AK59X3/4"	580	639	702	766	830	891	952
4	E/GDK048A3,4,W	AK56X3/4"	619	684	748	820	888	948	1003
5	E/GDK060A3,4,W	AK49X3/4"	699	775	854	927	991	1058	1115

Note: Factory set at 3 turns open.

Table 25. Oversized motor and drive/fan speed (rpm)

Tons	Unit Model Number	Fan Sheave	6 Turns Open	5 Turns Open	4 Turns Open	3 Turns Open	2 Turns Open	1 Turn Open	Closed
3	E/GDK036A3,4,W	AK56X3/4"	N/A	888	954	1018	1084	1147	1211
4	E/GDK048A3,4,W	AK51X3/4"	N/A	963	1033	1097	1156	1233	1295
5	E/GDK060A3,4,W	AK51X3/4"	N/A	963	1033	1097	1156	1233	1295

Note: Factory set at 3 turns open.

Table 26. Static pressure drop through accessories (inches water column) – 3 to 5 tons

Tons	Unit Model Number	cfm	Standard Filters[a]	2-in. MERV 13 Filters[b]	Economizer with OA/RA Dampers[c]				Low Leak Economizer				Electric Heater Accessory (kW)[d]	
					100% OA	100% RA	100% OA	100% RA	100% OA	100% RA	100% OA	100% RA	5-15	20-25
					Downflow		Horizontal		Downflow		Horizontal			
3	E/GDK036A*	960	0.01	0.08	0.04	0.01	0.04	0.01	0.07	0.07	0.03	0.08	0.01	0.01
		1200	0.02	0.10	0.06	0.01	0.06	0.01	0.10	0.10	0.04	0.11	0.02	0.02
		1440	0.03	0.12	0.08	0.02	0.08	0.01	0.14	0.15	0.05	0.15	0.02	0.03
4	E/GDK048A*	1280	0.03	0.11	0.09	0.02	0.09	0.01	0.11	0.12	0.04	0.12	0.02	0.03
		1600	0.04	0.14	0.13	0.04	0.13	0.02	0.17	0.18	0.06	0.15	0.04	0.05
		1920	0.06	0.16	0.17	0.06	0.17	0.02	0.24	0.26	0.09	0.11	0.05	0.08
5	E/GDK060A*	1600	0.04	0.14	0.13	0.04	0.13	0.02	0.17	0.18	0.06	0.19	0.04	0.05
		2000	0.06	0.17	0.18	0.07	0.18	0.02	0.25	0.27	0.09	0.29	0.06	0.08
		2400	0.08	0.20	0.25	0.11	0.25	0.03	0.36	0.38	0.13	0.40	0.08	0.12

[a] Tested with 2-in. standard filters.
[b] Tested with 2-in. MERV 13 filters 3 to 5 tons.
[c] OA = Outside Air and RA = Return Air.
[d] Nominal kW ratings at 240, 480 volts.

Table 27. Gas fired heating capacities

Tons	Unit Model Number	Heating Input (MBh)	Heating Output (MBh)[a]	Air Temp Rise (°F)
3	GDK036A(3,4,W)E(L or X)	72	58	30 - 60
	GDK036A(3,4,W)E(M or Y)	100 / 80	80 / 64	50 - 80
4	GDK048A(3,4,W)E(L or X)	72	58	25 - 60
	GDK048A(3,4,W)E(M or Y)	115 / 92	92 / 74	50 - 80
5	GDK060A(3,4,W)E(L or X)	72	58	20 - 60
	GDK060A(3,4,W)E(M or Y)	115 / 92	92 / 74	35 - 65

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

Table 28. 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
3	EDK036A*	4.7	16.05	1	4.7	16.05	—	—
		7.5	25.61	1	7.5	25.61	—	—
		10.0	34.14	1	10.0	34.14	—	—
		14.4	49.16	1	14.4	49.16	—	—
4	EDK048A*	4.7	16.05	1	4.7	16.05	—	—
		7.5	25.61	1	7.5	25.61	—	—
		10.0	34.14	1	10.0	34.14	—	—
		14.4	49.16	1	14.4	49.16	—	—
		20.0	68.28	2	10.0	34.14	10.0	34.14
5	EDK060A*	4.7	16.05	1	4.7	16.05	—	—
		7.5	25.61	1	7.5	25.61	—	—
		10.0	34.14	1	10.0	34.14	—	—
		14.4	49.16	1	14.4	49.16	—	—
		20.0	68.28	2	10.0	34.14	10.0	34.14
		25.0	85.35	2	12.5	42.68	12.5	42.68

[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.

Table 29. Electric heater voltage correction factors (applicable to auxiliary heat capacity)

Nominal Voltage	Distribution Voltage	Capacity Multiplier
240	187	0.61
	208	0.75
	230	0.92
	240	1.00
	253	1.11
480	440	0.84
	460	0.92
	480	1.00
	506	1.11
600	540	0.81
	575	0.92
	600	1.00

Table 30. Air temperature rise across electric heaters (°F)

kW	Stages	3 Tons 940 CFM EDK036A*	4 Tons 1280 CFM EDK048A*	5 Tons 1640 CFM EDK060A*
4.7	1	12.38	9.29	7.43
7.5	1	19.76	14.82	11.85
10.0	1	26.34	19.76	15.81
14.4	1	37.93	28.45	22.76
20.0	2	—	39.51	31.61
25.0	2	—	—	39.51

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

Economizer Controls

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

Reference Enthalpy Control

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

Comparative Enthalpy Control

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

Remote Potentiometer

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

Thermostats

Type	Stages	Display Type	Features
Non-Programmable	3H/2C	Backlit Display and Keys	Auto-changeover, Filter Reminder, Keypad Lock, Outdoor Temperature Sensor included
Programmable	3H/2C	Interactive Touchscreen	Large display, Real time clock

Electrical Data

Table 31. 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
3	E/GDK036A3	208-230	23	30	24	35
	E/GDK036A4	460	11	15	12	15
	E/GDK036AW	575	9	15	9	15
4	E/GDK048A3	208-230	23	35	25	35
	E/GDK048A4	460	11	15	12	15
	E/GDK048AW	575	10	15	11	15
5	E/GDK060A3	208-230	28	40	29	40
	E/GDK060A4	460	13	15	13	20
	E/GDK060AW	575	11	15	12	15

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

Table 32. Unit wiring with electric heat (single point connection)

Tons	Unit Model Number	Heater Model Number	Heater kW Rating[a]	Heater Amps	Control Stages	Standard Indoor Motor		Oversized Indoor Motor	
						MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker [b]
208/230 Volts Three Phase									
3	EDK036A3	BAYHTFA305A	3.5/4.7	9.8/11.3	1	23/23	30/30	24/24	30/35
		BAYHTFA307A	5.6/7.5	15.6/18.0	1	26/29	30/30	28/31	35/35
		BAYHTFA310A	7.5/10.0	20.8/24.1	1	33/37	35/40	34/38	35/40
		BAYHTFA315A	10.8/14.4	30.0/34.6	1	44/50	45/50	46/52	50/60
4	EDK048A3	BAYHTFA305A	3.5/4.7	9.8/11.3	1	23/23	35/35	25/25	35/35
		BAYHTFA307A	5.6/7.5	15.6/18.0	1	26/29	35/35	28/32	35/35
		BAYHTFA310A	7.5/10.0	20.8/24.1	1	33/37	35/40	34/38	35/40
		BAYHTFA315A	10.8/14.4	30.0/34.6	1	44/50	45/50	46/52	50/60
		BAYHTFA320A	15.0/20.0	41.7/48.1	2	59/67	60/70	60/69	60/80
5	EDK060A3	BAYHTFA305A	3.5/4.7	9.7/11.3	1	28/28	40/40	29/29	40/40
		BAYHTFA307A	5.6/7.5	15.6/18.0	1	28/29	40/40	29/31	40/40
		BAYHTFA310A	7.5/10.0	20.8/24.1	1	33/37	40/40	34/38	40/40
		BAYHTFA315A	10.8/14.4	30.0/34.6	1	44/50	45/50	46/52	50/60
		BAYHTFA320A	15.0/20.0	41.7/48.1	2	59/67	60/70	60/69	60/70
		BAYHTFA325A	18.8/25.0	52.1/60.1	2	72/82	80/90	74/84	80/90
460 Volts Three Phase									
3	EDK036A4	BAYHTFA405A	4.7	5.7	1	11	15	12	15
		BAYHTFA407A	7.5	9.0	1	15	15	16	20
		BAYHTFA410A	10.0	12.0	1	19	20	19	20
		BAYHTFA415A	14.4	17.3	1	25	25	26	30
4	EDK048A4	BAYHTFA405A	4.7	5.7	1	11	15	12	15
		BAYHTFA407A	7.5	9.0	1	15	15	17	20
		BAYHTFA410A	10.0	12.0	1	19	20	19	20
		BAYHTFA415A	14.4	17.3	1	25	25	26	30
		BAYHTFA420A	20.0	24.1	2	34	35	34	35
5	EDK060A4	BAYHTFA405A	4.7	5.7	1	13	15	13	20
		BAYHTFA407A	7.5	9.0	1	15	15	16	20
		BAYHTFA410A	10.0	12.0	1	19	20	19	20
		BAYHTFA415A	14.4	17.3	1	25	25	26	30
		BAYHTFA420A	20.0	24.1	2	34	35	34	35
		BAYHTFA425A	25.0	30.1	2	42	45	42	45
575 Volts Three Phase									

Table 32. Unit wiring with electric heat (single point connection) (continued)

Tons	Unit Model Number	Heater Model Number	Heater kW Rating[a]	Heater Amps	Control Stages	Standard Indoor Motor		Oversized Indoor Motor	
						MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker [b]
208/230 Volts Three Phase									
3	EDK036AW	BAYHTFAW10A	10.0	9.6	1	15	20	16	20
		BAYHTFAW15A	14.4	13.9	1	20	20	21	25
4	EDK048AW	BAYHTFAW10A	10.0	9.6	1	15	20	16	20
		BAYHTFAW15A	14.4	13.9	1	20	20	21	25
		BAYHTFAW20A	20.0	19.2	2	27	30	28	30
5	EDK060AW	BAYHTFAW10A	10.0	9.6	1	15	20	16	20
		BAYHTFAW15A	14.4	13.9	1	20	20	21	25
		BAYHTFAW20A	20.0	19.2	2	27	30	28	30
		BAYHTFAW25A	25.0	24.1	2	33	35	34	35

[a] Heater kW ratings are at 208/240V for 208/230V units, 480V for 460V units, 600V for 575V units.
[b] Values do not include power exhaust accessory.

Table 33. Electrical characteristics – compressor motor and condenser motor

Tons	Unit Model No.	Compressor Motors							Condenser Fan Motors				
		Volts	No.	Phase	Hp	RPM	Amps[a]		No.	Phase	Hp	Amps[a]	
							RLA	LRA				FLA	LRA
3	E/GDK036A3	208-230	1	3	4.10	3500	12.2	97.5	1	3	0.33	1.40	4.6
	E/GDK036A4	460	1	3	4.10	3500	5.8	44.3	1	3	0.33	0.70	2.3
	E/GDK036AW	575	1	3	4.20	3500	4.5	27.1	1	3	0.33	0.55	1.8
4	E/GDK048A3	208-230	1	3	5.39	3500	12.08	120.4	1	3	0.33	1.40	4.6
	E/GDK048A4	460	1	3	5.44	3500	6.03	49.4	1	3	0.33	0.70	2.3
	E/GDK048AW	575	1	3	5.9	3500	5.8	41	1	3	0.33	0.55	1.8
5	E/GDK060A3	208-230	1	3	6.45	3500	16.0	156.4	1	3	0.33	1.40	4.6
	E/GDK060A4	460	1	3	6.50	3500	7.1	69	1	3	0.33	0.70	2.3
	E/GDK060AW	575	1	3	6.55	3500	6.4	47.8	1	3	0.33	0.55	1.8

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

Table 34. 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
3	E/GDK036A3	1	208–230	3	1	5.0	32.2	1	208–230	3	2	6.12	48
	E/GDK036A4	1	460	3	1	2.5	17.5	1	460	3	2	3.09	24
	E/GDK036AW	1	575	3	1	1.7	13.2	1	575	3	2	2.5	18.2
4	E/GDK048A3	1	208–230	3	1	5.0	32.2	1	208–230	3	2	6.12	48
	E/GDK048A4	1	460	3	1	2.5	17.5	1	460	3	2	3.09	24
	E/GDK048AW	1	575	3	1	1.7	13.2	1	575	3	2	2.5	18.2
5	E/GDK060A3	1	208–230	3	1	5.0	32.2	1	208–230	3	2	6.12	48
	E/GDK060A4	1	460	3	1	2.5	17.5	1	460	3	2	3.09	24
	E/GDK060AW	1	575	3	1	1.7	13.2	1	575	3	2	2.5	18.2

Table 35. Electrical characteristics – combustion blower motor (gas heat units)

Unit Model Number	Heat	Heating Stages	Hp	RPM	Volts	Phase	Amps	
							FLA	LRA
GDK036-060A	Low	1	1/35	3290	208–230	1	0.21	0.35
	Med	2	1/45	3400	208-230	1	0.15	0.35

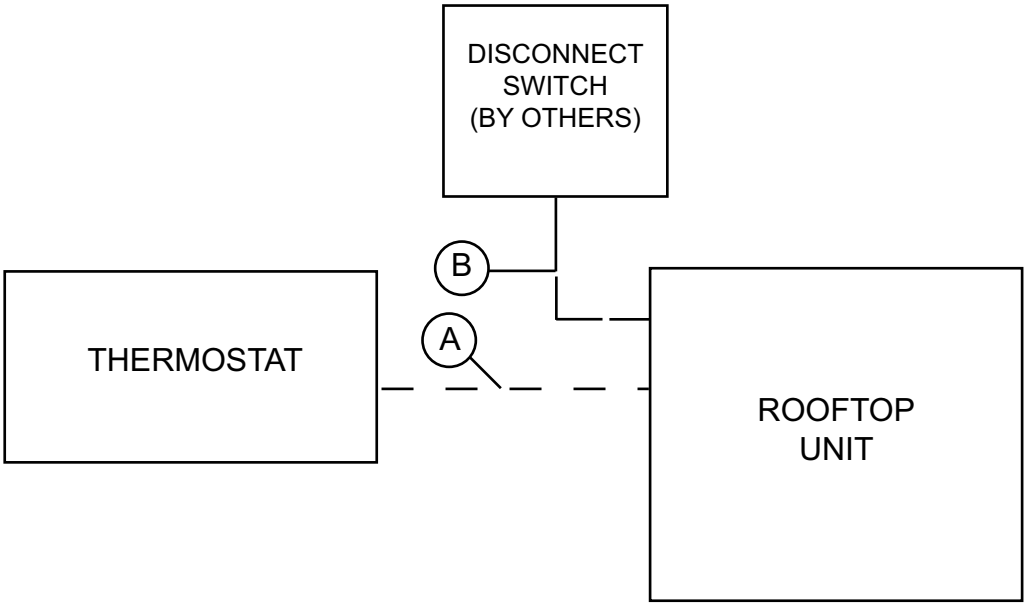
Table 36. Electrical characteristics – power exhaust

Tons	Volts	Phase	Hp	RPM	Amps	
					FLA	LRA
3 to 5	208–230	1	0.33	1075	2.2	3.9
	460	1	0.33	1075	1.1	2.0
	575	1	0.33	1075	1	1.8

Jobsite Connections

Table 37. 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 1. Cooling with optional electrical heat and gas/electric units — overview

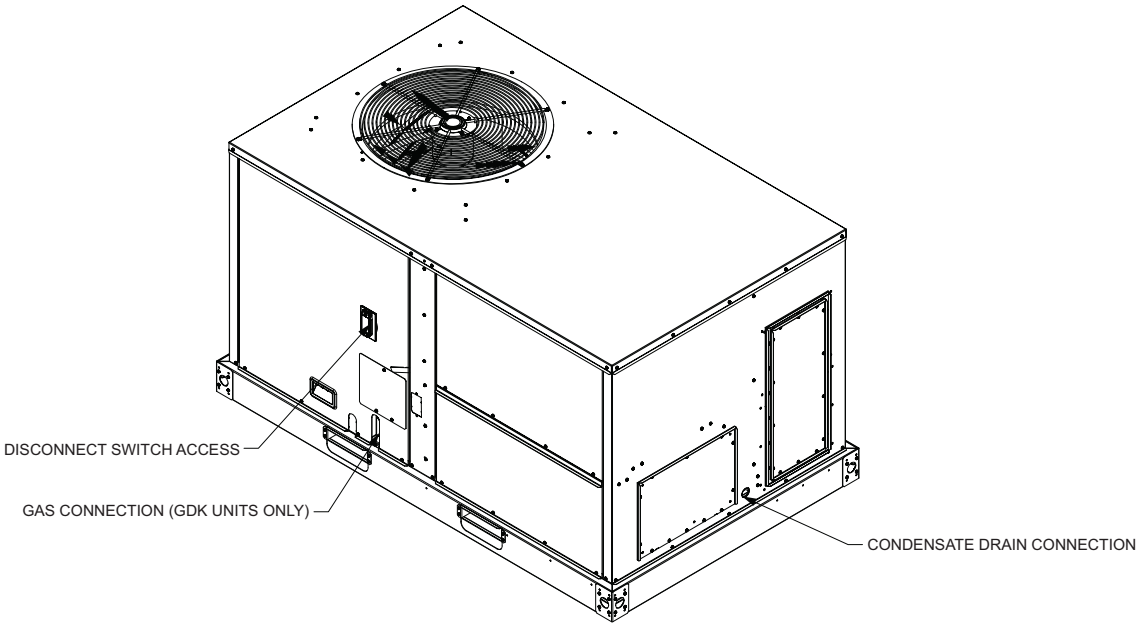
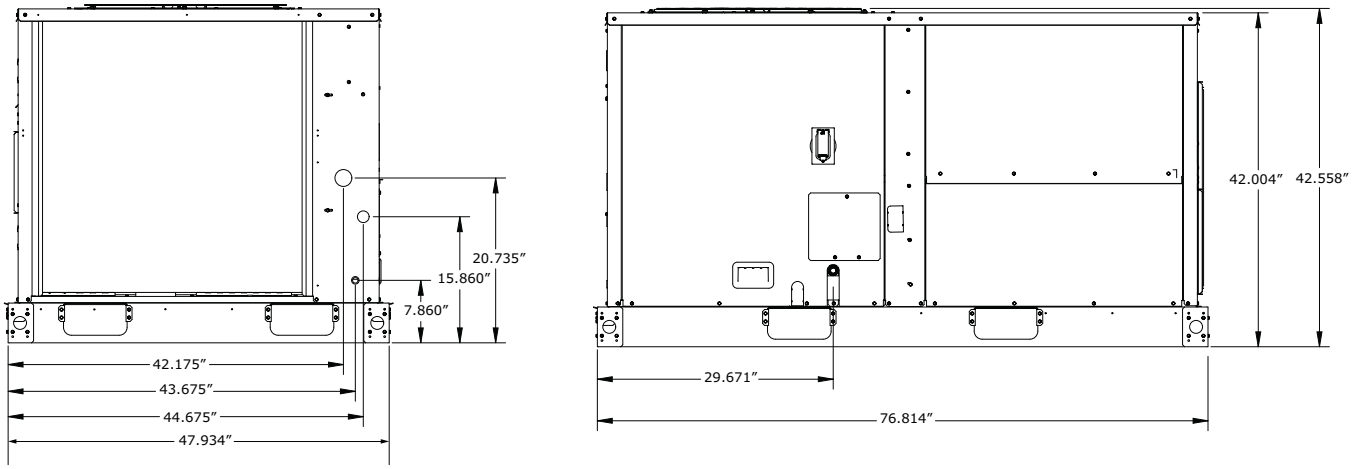


Figure 2. Cooling with gas heat — front and side views (gas/electric)



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 3. Cooling with optional electrical heat and gas/electric units — plain view

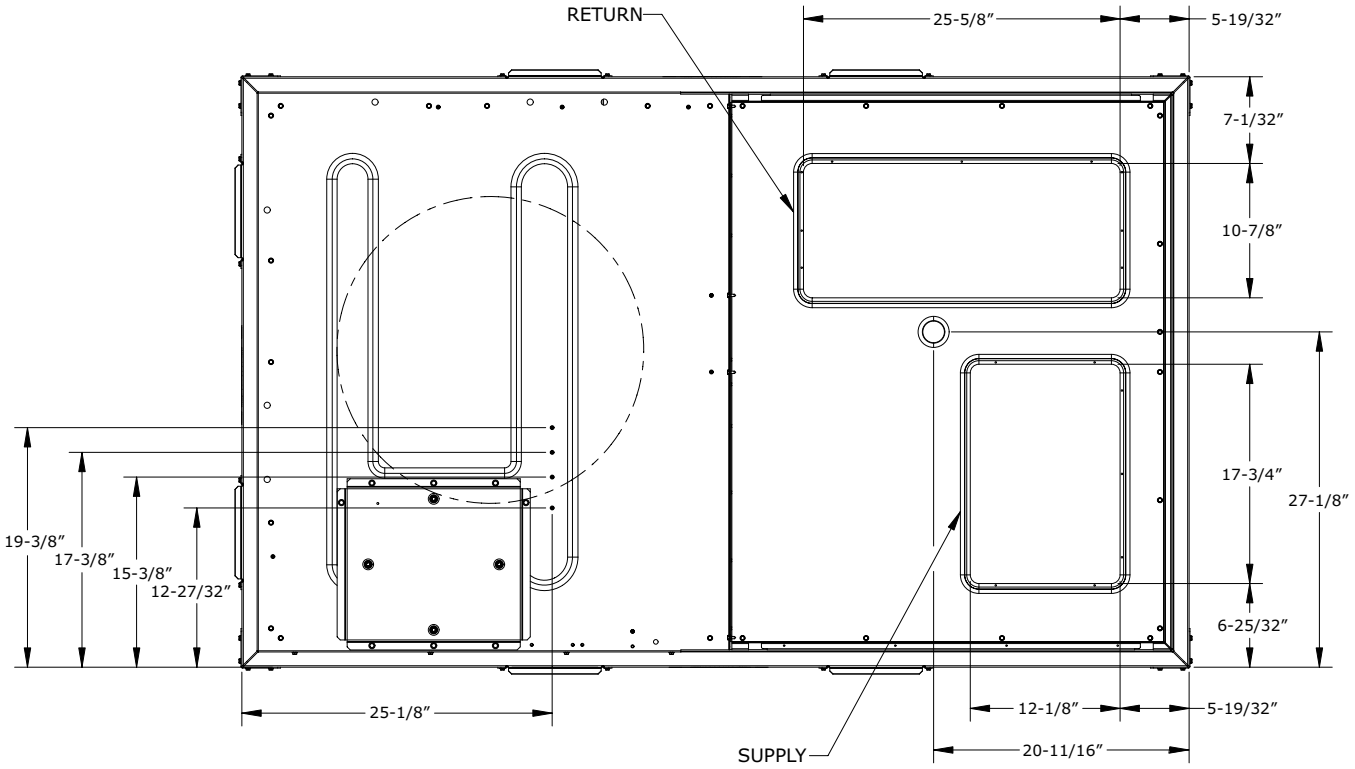


Figure 4. Cooling with optional electrical heat and gas/electric units — back view (horizontal configuration)

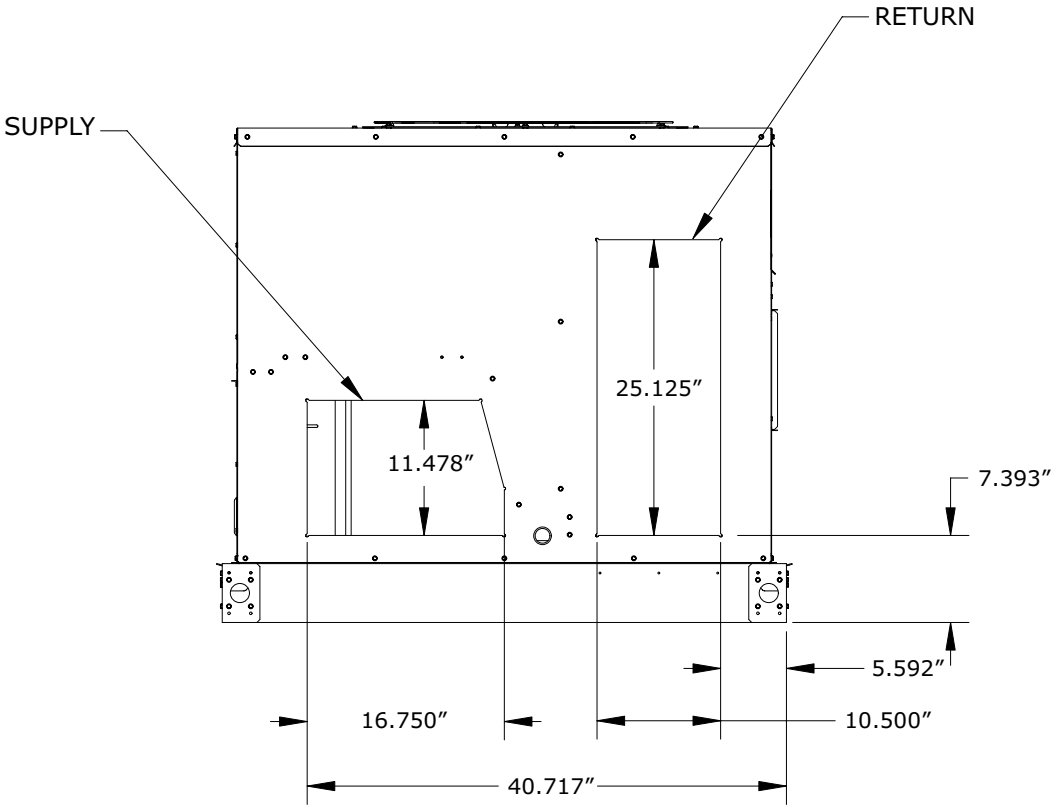


Figure 5. Cooling with optional electrical heat and gas/electric units — roof curb

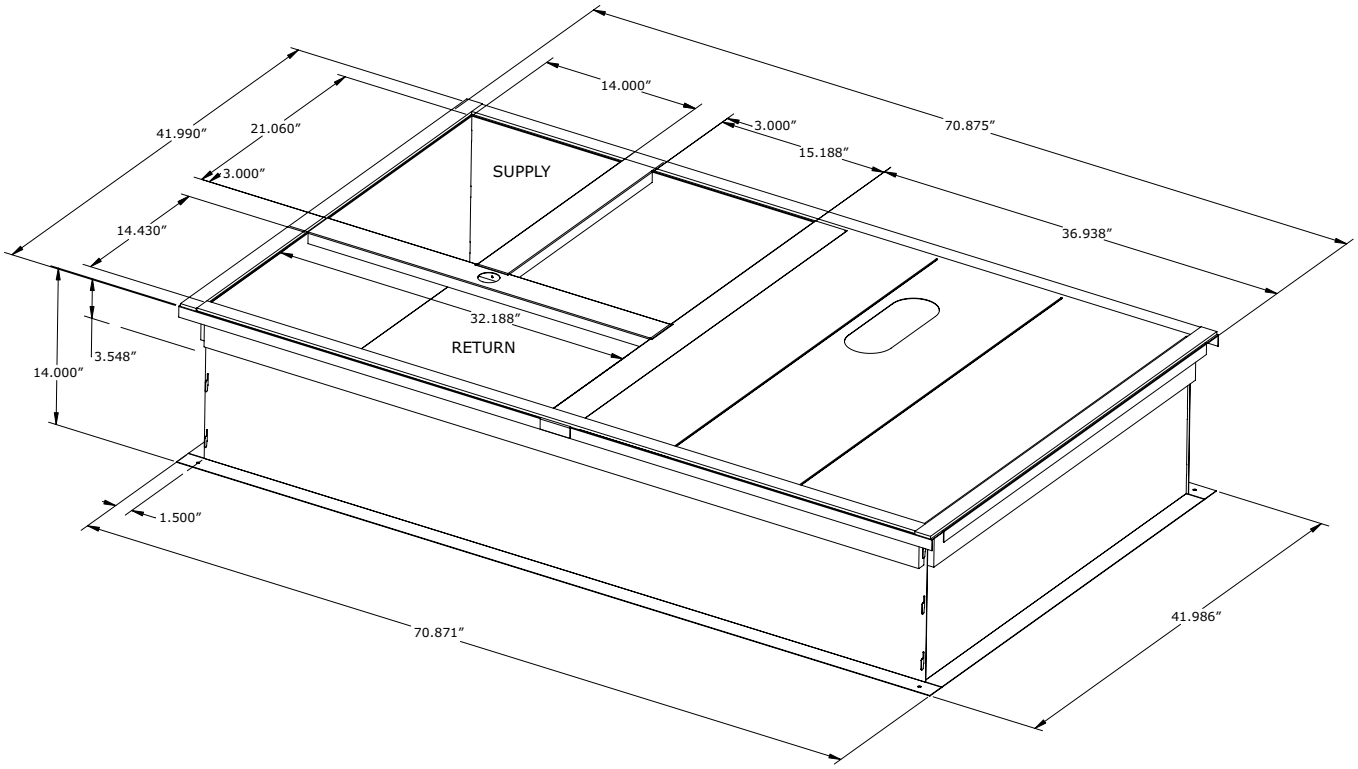


Figure 6. Cooling with optional electrical heat and gas/electric units — downflow unit clearance

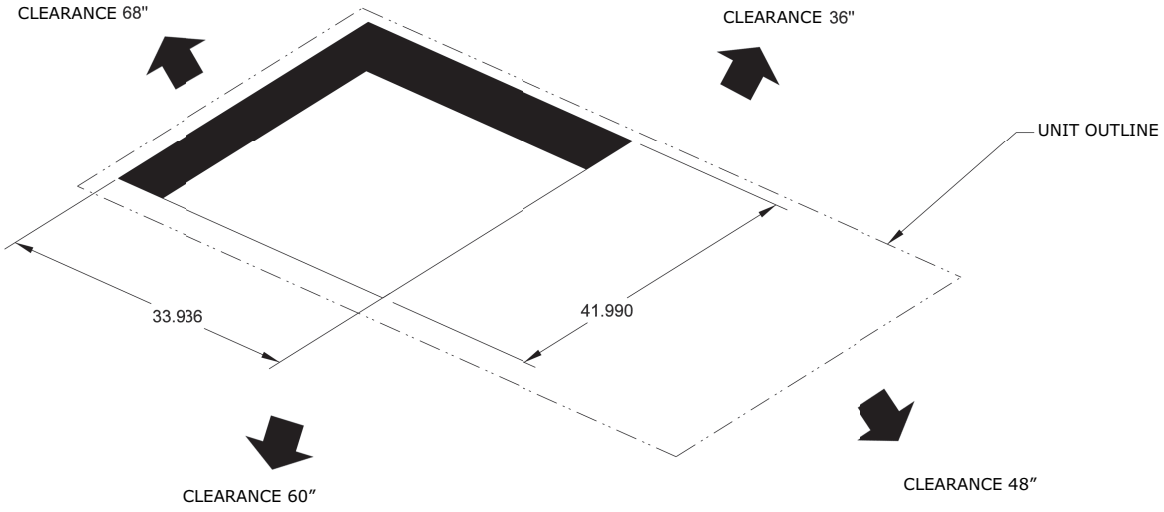


Figure 7. Cooling with optional electrical heat and gas/electric units — barometric relief and economizer

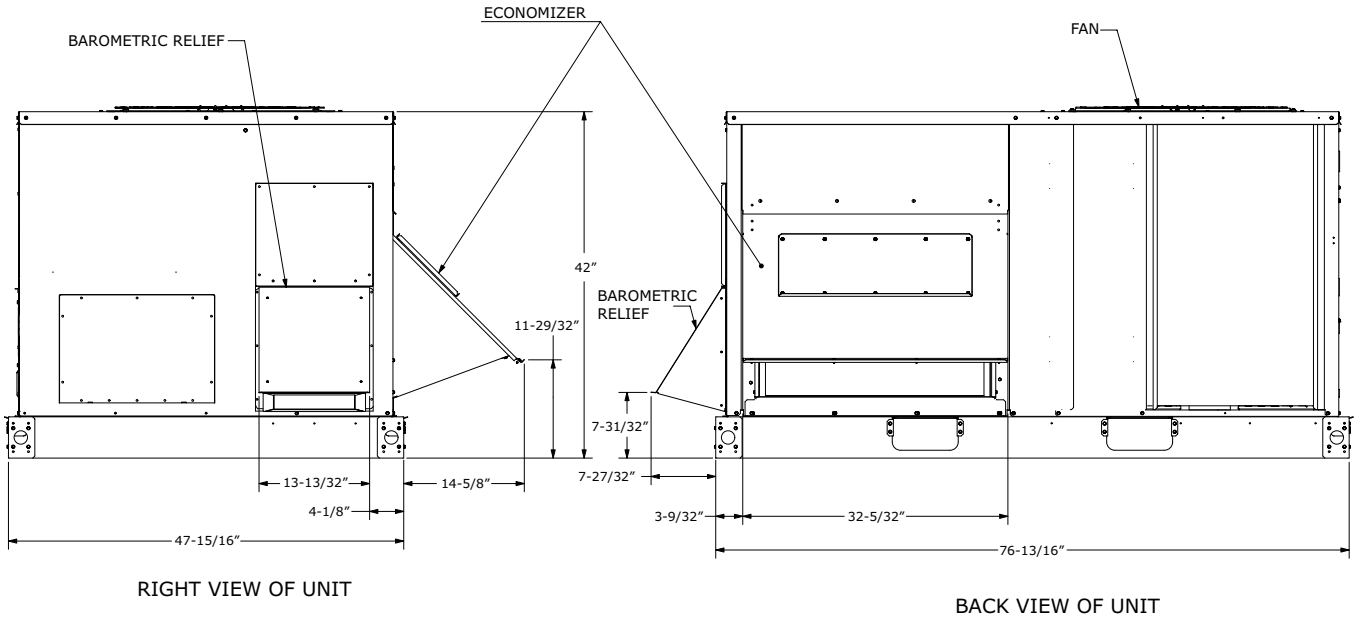
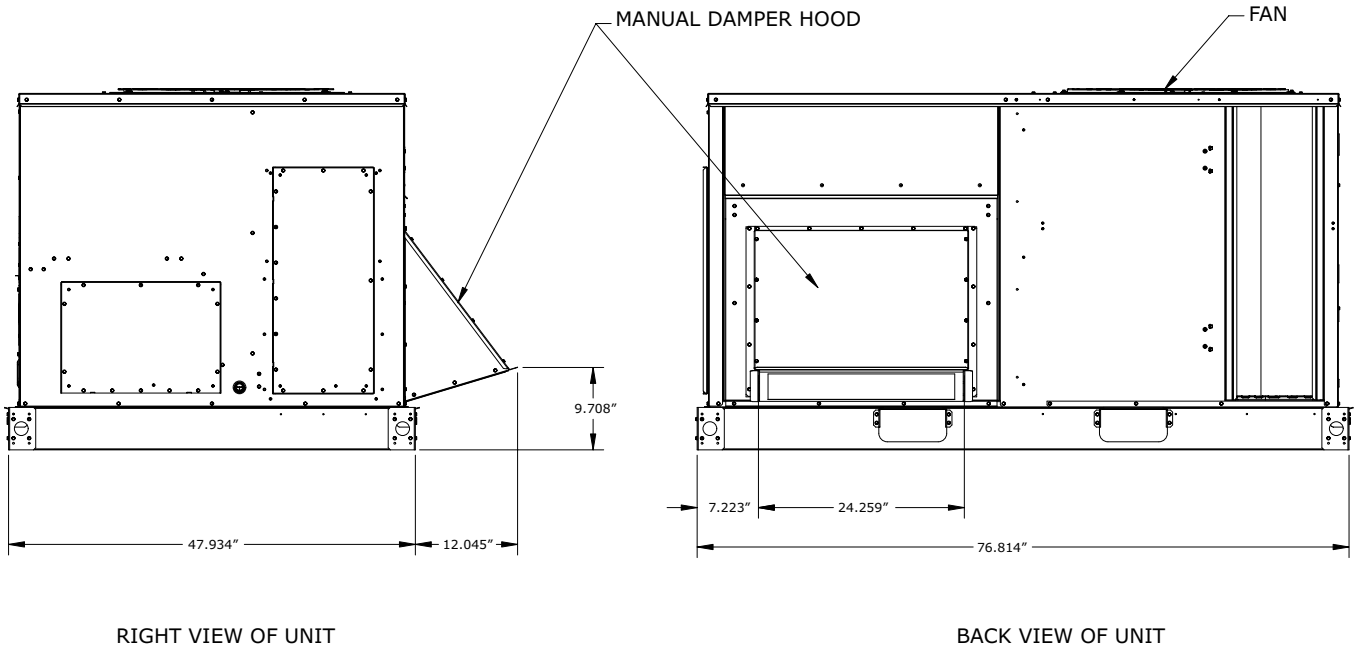


Figure 8. Cooling with optional electrical heat and gas/electric units — manual damper



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

Weights

Table 38. Maximum unit and corner weights (lb) and center of gravity dimensions (in.) cooling with optional electric heat (gas/electric) 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
3	GDK036*	574	524	95	111	172	146	42	29
4	GDK048*	616	566	110	119	175	162	40	29
5	GDK060*	636	586	120	125	174	168	39	28

[a] Weights are approximate.
[b] Weights do not include additional factory or field installed options/accessories.
[c] Corner weights are given for information only.

Table 39. Maximum unit and corner weights (lb) and center of gravity dimensions (in.) cooling with optional electric heat (electric/electric) 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
3	EDK036*	523	473	87	98	153	135	41	29
4	EDK048*	566	516	103	107	155	150	39	28
5	EDK060*	586	536	112	112	156	156	38	28

[a] Weights are approximate.
[b] Weights do not include additional factory or field installed options/accessories.
[c] Corner weights are given for information only.

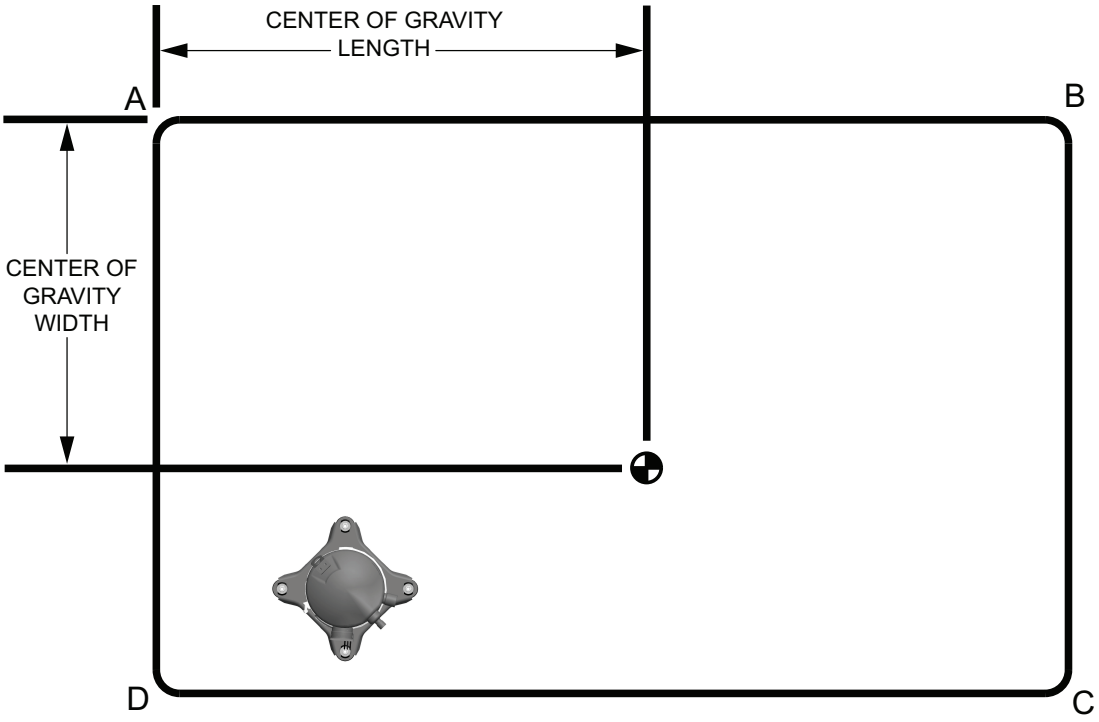
Note: *To calculate additional weight for accessories, see Accessory net weights table.*

Table 40. Accessory net weight (lb)

Accessories[a], [b], [c]	E/GDK036-060
Standard Economizer	26
Low Leak Economizer	68
Manual Outside Air Damper	16
Motorized outside Air Damper[d]	20
Power Exhaust[d]	40
Barometric relief[d]	7
Roof Curb[d]	61
Oversized Motor	5
Hail Guard	12
Through-the-Base Electrical	8
Disconnect	5
Electric Heaters	15

[a] Net weight should be added to unit weight when ordering factoryinstalled accessories.
[b] Weights for factory installed options and field installed accessories not listed are < 5 lb.
[c] To estimate shipping weight add 5 lb. to net weight.
[d] Downflow only.

Figure 9. Corner weights



Mechanical Specifications

General

- Packaged rooftop units cooling, heating capacities, and efficiencies are AHRI Certified within scope of AHRI Standard 210–240 (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 45°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 wring internal to the unit for simplified identification
- Units listed in accordance UL 60335-2-40/ CSA C22.2 No. 60335-2-40.

Standard Features

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 four fasteners while providing a water and air tight seal)
- Exposed vertical panels and top covers in the indoor air section is 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 units base pan does not have 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 has provisions for forklift and crane lifting

Compressors

- All units have 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
- All models have phase monitors, low pressure controls, and high pressure controls as standard

Controls

- Units factory-wired with necessary controls and contactor pressure lugs or terminal block for power wiring
- External location available for mounting a fused disconnect device

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

Evaporator and Condenser Coils

- Microchannel coils burst tested by manufacturer
- Microchannel condenser coils standard on all units
- Coils leak tested to confirm the pressure integrity
- Evaporator coil and condenser coil leak tested to 225 psig and pressure tested to 450 psig
- Sloped condensate drain pans are standard

Fan Failure Switch

For cooling and electric heat unit, fan failure switch is standard. In electric heating mode, heaters will not be energized until differential pressure switch proves airflow.

Filters

Two-inch standard filters are factory supplied on all units.

Gas Heat Section

- Progressive tubular heat exchanger, stainless steel burners and corrosion resistant steel
- Induced draft combustion blower is used 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 is locked out until manually reset at the thermostat/zone sensor
- Units are suitable for use with natural gas or propane (field-installed kit)
- For installation in SCAQMD only: This furnace does not meet the 14 ng/J NOx emission limit requirement of SCAQMD Rule 1111, and thus is subject to a mitigation fee of up to $450

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)

Outdoor Fans

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

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 to 600 Vac
- LED indicators for ON and FAULT
- No field adjustments
- Module will automatically reset from a fault condition

Refrigerant Circuits

- Each refrigerant circuit has a fixed orifice, service pressure ports, and refrigerant line filter driers factory installed as standard
- An area is provided for replacement suction line driers

Refrigerant Pressure Control

All units include high and low pressure cutouts as standard.

Unit Top

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

Factory Installed Options

Complete Coat™ Microchannel Condenser Coil

- Cathodic epoxy type electro-disposition coating formulated for high edge build to a number of different types of heat exchangers
- Coating provides excellent resistance and durability to corrosive effects of alkalies, acids, alcohols, petroleum, seawater, salt air and corrosive environments
- Option is available on the microchannel type condenser coil

Stainless Steel Heat Exchanger

- Gas heat exchanger has tubular heat exchanger design
- Constructed from a minimum 304 grade stainless steel tubes and 439 stainless steel burners
- Has a 10-year warranty as standard (Gas/Electric only)

Factory or Field Installed Options

Barometric Relief

- Designed to be used on downflow low leak economizer units
- Field installed only: Designed to be used on downflow and horizontal configuration both for standard and low leak economizer units
- Barometric relief is an unpowered means of relieving excess building pressure

Condensate Overflow Switch

This option shuts the unit down in the event that a clogged condensate drain line prevents proper condensate removal from the unit.

Economizer (Standard) – Downflow

- 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 is gravity closing and prohibits entrance of outside air during the equipment **off** cycle

Electric Heaters

- Electric heat modules are available for installation within the basic unit
- Elements are constructed of heavy-duty nickel chromium elements internally delta connected for 240 volt, wye connected for 480 volt
- Each heater package has automatically reset high limit control operating as line break limits
- Power assemblies provides single-point connection
- Electric heat modules is UL listed or CSA certified

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

High Efficiency Filters

Two-inch MERV 13 media filters available on all models.

Low Leak Economizer with Fault Detection and Diagnostics – Downflow

- Option of outside and return air dampers that do not exceed 3 cfm/ft^2 at 1.0 in. w.g. and supply 100 percent of the design supply air quantity as outside air
- Controller has the capability to provide the value of each sensor used in controlling the economizer operation
- System status is also indicted 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
  - Economizing when conditions indicate system should not be economizing
  - Dampers not modulating
  - Excessive amounts of outside air being introduced though 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)

Manual Outside Air Damper

The rain hood and screen provides up to 50 percent outside air.

Motorized Outside Air Damper

- Manually set outdoor air dampers provides up to 50 percent outside air
- Outdoor air dampers opens to set position when indoor fan starts
- Damper closes to the full closed position when indoor fan shuts down

Oversized Motors

Oversized motors are available for high static applications.

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 is available when a factory or field installed downflow economizer is ordered
- Option is available on all models

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 is provided from the switch to the unit high voltage terminal block
- Switch is 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 includes a standard through-the-base gas provision
- Option has all necessary piping including black steel, manual gas shut-off valve, elbows, and union
- Manual shutoff valve includes a 1/8-inch NPT pressure tap
- Assembly requires minor field labor to install (gas/electric only)

Through-the-Base Utilities Access

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

Field Installed Options

Barometric Relief

- Designed to be used on downflow low leak economizer units
- Field installed only: Designed to be used on downflow and horizontal configuration both for standard and low leak economizer units
- Barometric relief is an unpowered means of relieving excess building pressure

Crankcase Heaters

Band heaters provide improved compressor reliability by warming the oil to prevent migration during off-cycles or low ambient conditions.

Demand Control Ventilation with CO_2 Sensor

- CO_2 sensor has the ability to monitor the concentration (parts per million, ppm) of CO_2 (Carbon Dioxide) in the air
- As the CO_2 concentration changes, the outside air damper modulates to meet the current ventilation needs of the zone

Economizer – Horizontal

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

Hail Guards

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

Low Ambient Kit

- Low ambient kit is required when unit operating under below 45°F
- Allows system to operate in cooling below 45 degrees
- Maintains head pressure by cycling the outdoor fan motor, allowing safe system operation without indoor coil icing

Low Leak Economizer with Fault Detection and Diagnostics – Horizontal

- Option of outside and return air dampers that do not exceed 3 cfm/ft^2 at 1.0 in. w.g. and supply 100 percent of the design supply air quantity as outside air
- Controller has the capability to provide the value of each sensor used in controlling the economizer operation
- System status is also indicted 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
  - Economizing when conditions indicate system should not be economizing
  - Dampers not modulating
  - Excessive amounts of outside air being introduced though 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)

Powered Exhaust

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

Remote Potentiometer

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

Roof Curb – Downflow

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

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.

Trane - by Trane Technologies (NYSE: TT), a global innovator - creates comfortable, energy efficient indoor environments for commercial and residential applications. For more information, please visit trane.com or tranetechnologies.com.

Trane has a policy of continuous product and product data improvements and reserves the right to change design and specifications without notice. We are committed to using environmentally conscious print practices.

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