



**COMMERCIAL
PRODUCT SPECIFICATIONS**

PACKAGED GAS / ELECTRIC

QGA

Q-SERIES™

Standard Efficiency - Three-Phase - 60 Hz

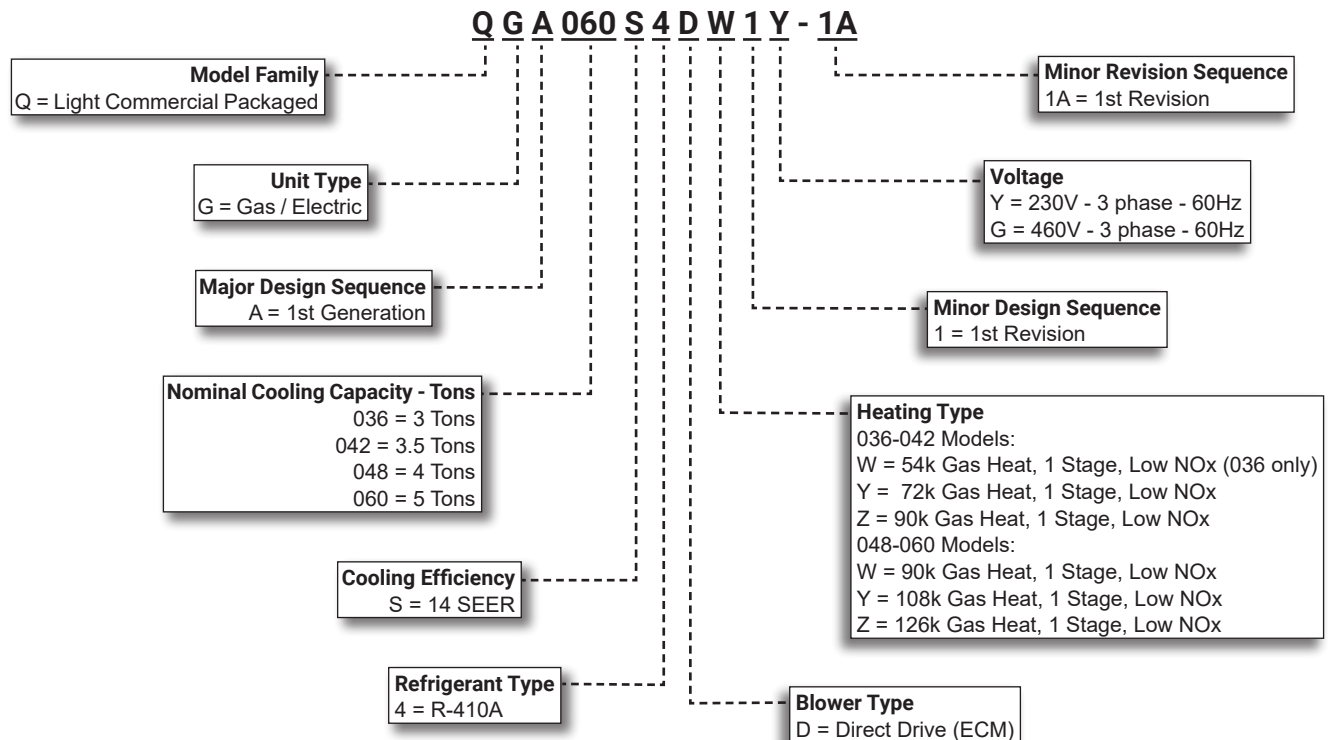
Bulletin No. 310939
March 2022



**SEER - 14.00
AFUE - 81%
3 to 5 Tons**

**Cooling Capacity - 34,000 to 57,000 Btuh
Gas Input Heat Capacity - 54,000 to 126,000 Btuh**

MODEL NUMBER IDENTIFICATION



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APPROVALS AND WARRANTY

APPROVALS

- AHRI Standard 210/240 certified
- Heating ratings are Certified by AHRI according to U.S. Department of Energy (DOE) test procedures and Federal Trade Commission (FTC) labeling regulations
- Design Certified by ETL Intertek
- Unit and components ETL, NEC and CEC bonded for grounding to meet safety standards for servicing
- All models are ASHRAE 90.1 compliant
- Seismic Certification (with Seismic Strapping Kit applied): Latest Edition of International Building Code, California Building Code, and ASCE 7-16

California Only

- If installed in South Coast Air Quality Management District (SCAQMD) only:
 - This gas unit does not meet the SCAQMD Rule 1111 NO_x emission limit (14 ng/J), and thus is subject to a mitigation fee of up to \$450. This furnace is not eligible for the Clean Air Furnace Rebate Program: www.CleanAirFurnaceRebate.com.
- If installed in San Joaquin Valley Air Pollution Control District (SJVAPCD) only
 - This gas unit does not meet the SJVAPCD Rule 4905 NO_x emission limit (14 ng/J), and thus is subject to a mitigation fee of up to \$450

WARRANTY

- Heat exchanger - Limited ten years
- Compressors - Limited five years
- All other covered components - Limited one year

FEATURES AND BENEFITS

HEATING SYSTEM

Heat Exchanger

- Aluminized tubular steel for superior resistance to corrosion and oxidation
- Round surfaces create minimum air resistance and allow air to surround all surfaces for excellent heat transfer
- Compact design reduces space requirements in cabinet
- Laboratory life cycle tested

Inshot Burners

- Aluminized steel inshot burners provide efficient trouble free operation
- Burner venturi mixes air and gas in correct proportion for proper combustion
- Burner assembly is removable from the unit as a single component for ease of service
- Each burner may be removed individually

Gas Control Valve

- 24 volt redundant combination gas control valve combines manual shut off valve (On-Off), automatic electric valve (dual) and gas pressure regulation into a compact combination control

Combustion Air Inducer

- Heavy duty combustion air inducer prepurges heat exchanger and safely vents flue products
- Blower is controlled by the ignition control board
- Pressure switch proves blower operation before allowing gas valve to open
- Combustion air inducer operates during heating cycle
- Inducer operates for the first 10 seconds of every cooling cycle to prevent insects from nesting in the flue outlet during cooling season

Limit Control

- Factory installed behind heat exchanger access panel
- Automatic reset

Flame Rollout Switch

- Factory installed on burner box
- Provides protection from abnormal operating conditions
- Manual reset

Ignition Control Board

- Ignition control board with LED diagnostics

Low NOx Models

- All models are standard low NOx (40 ng/J)

Required Selections

Gas Input Choice (1 Stage) - Order one:

- 54,000 Btuh (036)
- 72,000 Btuh (036, 042)
- 90,000 Btuh (036, 042, 048, 060)
- 108,000 Btuh (048, 060)
- 126,000 Btuh (048, 060)

Optional Accessories

Bottom Gas Entry Kit

- Allows gas piping connection through the unit base pan

LPG/Propane Conversion Kit

- Required for field changeover from natural gas to LPG/Propane

Vertical Vent Extension Kit

- Use to exhaust flue gases vertically above unit
- Required when unit vent is too close to fresh air intakes per building codes

COOLING SYSTEM

R-410A Refrigerant

- Non-chlorine based
- Ozone-friendly
- Factory pre-charged

Evaporator and Condenser Coils

- Copper tube with aluminum fin coils
- Factory leak tested

Anti-Microbial Condensate Drain Pan

- Anti-Microbial additive resists growth of mold and mildew on drain pan which improves indoor air quality and reduces drain line blockage
- Insulated to reduce condensation
- Side drain connection

Drain Pan Overflow Switch

- Monitors condensate level in drain pan
- Shuts down unit if drain becomes clogged

Outdoor Coil Fan Motor

- Weather protected heavy duty condenser fan motor
- Coated steel fan blades for long life
- Corrosion-resistant coated steel fan guard
- Internally mounted
- Totally enclosed fan motor

High Pressure Switch

- Protects the system from high pressure conditions
- Automatic reset.

Loss of Charge Switch

- Shuts off unit if suction pressure falls below setting
- Loss of charge and freeze-up protection

Service Valves

- Fully serviceable brass valves installed in discharge & liquid lines

FEATURES AND BENEFITS

COMPRESSOR

Scroll Compressor

- High volumetric efficiency
- Uniform suction flow
- Constant discharge flow
- Quiet operation
- Low gas pulses during compression reduces operational sound levels
- Compressor motor is internally protected from excessive current and temperature
- Compressor is installed in the unit on resilient rubber mounts for vibration free operation

Scroll Compressor Operation

- Two involute spiral scrolls matched together generate a series of crescent-shaped gas pockets between them
- During compression, one scroll remains stationary while the other scroll orbits around it
- Gas is drawn into the outer pocket, the pocket is sealed as the scroll rotates
- As the spiral movement continues, gas pockets are pushed to the center of the scrolls. Volume between the pockets is simultaneously reduced
- When the pocket reaches the center, gas is now at high pressure and is forced out of a port located in the center of the fixed scrolls
- During compression, several pockets are compressed simultaneously resulting in a smooth continuous compression cycle
- Continuous flank contact, maintained by centrifugal force, minimizes gas leakage and maximizes efficiency
- Compressor is tolerant to the effects of slugging and contaminants. If this occurs, scrolls separate, allowing liquid or contaminants to be worked toward the center and discharged
- Muffler in discharge line reduces operating sound levels

Optional Accessories

Field Installed

Compressor Crankcase Heater

- Protects against refrigerant migration that can occur during low ambient operation

Compressor Timed-Off Control

- Prevents compressor short-cycling
- Allows time for suction and discharge pressure to equalize
- Permits compressor start-up in an unloaded condition
- Automatic reset
- Five minute delay between compressor shut-off and start-up

Freezestat

- Senses suction line temperature
- Cycles compressor off when suction line temperature falls below its setpoint

Low Ambient Kit (40°F)

- Cycles the outdoor fan while allowing compressor operation in the cooling cycle
- This intermittent fan operation allows the system to operate without icing the evaporator coil and losing capacity
- Designed for use in ambient temperatures no lower than 40°F

NOTE - Crankcase heater and freezestat are recommended on compressor equipped with a low ambient kit.

CABINET

- Conditioned areas insulated with foil faced insulation to minimize heat loss and reduce operating sound levels
- Powder paint for maximum durability
- Full perimeter heavy-gauge galvanized steel base rails
- Base rails have rigging holes
- Two sides of the base rails have forklift slots
- Raised edges around duct and power entry openings in the bottom of the unit for water protection
- Easy service access
- Steel louvered panels provides complete coil protection

Airflow Choice

- Units are shipped with supply and return air duct covers installed for downflow or horizontal conversion

Gas Piping/Electrical Inlets and Service Valves

- Electrical and gas lines inlets are located in one central area of the cabinet
- See dimension drawing
- Service valves with gauge ports are located inside the cabinet

Optional Accessories

Field Installed

Bottom Gas Entry Kit

- Field installed piping kit to facilitate bottom gas entry

Bottom Power Entry Kit

- Allows high and low voltage wiring connections through the unit base pan

Base Rail Openings Closure Kit

- Kit consists of panels and hardware to cover rigging holes and forklift slots in unit base rails

Square to Round Duct Adaptor Kits

- Downflow or horizontal kits available
- Converts square supply and return air openings on unit cabinet to round 14 in. diameter

Tool-Less Filter Access Kit

- Converts blower access panel to two-piece design
- One panel is equipped with tool-less latches for ease filter access without removing entire blower panel

NOTE - Not for seismic-rated applications.

FEATURES AND BENEFITS

CONTROLS

24 Volt Transformer

- 70VA transformer furnished and factory installed in control area

Field Installed

Smoke Detector

- Photoelectric type
- Installed in supply air and/or return air ducts
- Available with one sensor or two sensors

BLOWER

- Direct drive blower
- Blower wheel is statically and dynamically balanced
- Resiliently mounted
- Blower assembly easily removed for servicing

Constant Torque Blower Motor

- DC Brushless Motor
- High Efficiency Constant Torque
- ECM (Electronically Commutated Motor)
- Motor is programmed to provide constant torque at each of the selectable speeds
- Fixed blower "On" delay prevents cold air from entering system during gas heating demand
- See Blower Performance tables

INDOOR AIR QUALITY

Air Filters

- Filter rack furnished as standard
- See Specifications Table for sizes

NOTE - Filters must be field provided.

OPTIONS / ACCESSORIES

ECONOMIZER

Field Installed

Economizer

(Standard and High Performance Common Features)

- Convertible to downflow or horizontal
- Outdoor Air Hood is furnished
- Includes Barometric Relief Dampers with Exhaust Hood
- Barometric Relief Dampers allow relief of excess air,
- Aluminum blade dampers prevent blow back and outdoor air infiltration during off cycle
- Exhaust hood with bird screen furnished
- Single temperature control is furnished with Economizer
- Outdoor air sensor enables Economizer if the outdoor temperature is less than the setpoint of the control

Standard Economizer Features (Not for Title 24)

- Gear-driven action
- Return air and outdoor air dampers
- Plug-in connections to unit
- Nylon bearings
- Neoprene seals
- 24-volt
- Fully-modulating spring return motor

Standard Economizer Control Module

The Standard Economizer Control Module can be adjusted to operate based on outdoor air temperatures

Economizer Controls:

- Damper Minimum Position - Can be set lower than traditional minimum air requirements resulting in cost savings
- Free Cool LED - A steady green LED indicates outdoor air is suitable for free cooling

NOTE - Free Cooling runs when outdoor air temperature is lower than the set temperature on the economizer control.

NOTE: The Free Cooling default setting for outdoor air temperature sensor is 55°F.

High Performance Economizer Features

- Approved for California Title 24 building standards
- Low leakage dampers are Air Movement and Control Association International (AMCA) Class 1A Certified - Maximum 3 cfm per sq. ft. leakage at 1 in. w.g.
- ASHRAE 90.1-2010 compliant
- Gear-driven action
- High torque 24-volt fully-modulating spring return damper motor
- Return air and outdoor air dampers
- Plug-in connections to unit
- Stainless steel bearings
- Enhanced neoprene blade edge seals
- Flexible stainless steel jamb seals minimize air leakage

OPTIONS / ACCESSORIES

ECONOMIZER (continued)

NOTE - High Performance Economizers are not approved for use with enthalpy controls in Title 24 applications.

NOTE - The Free Cooling setpoint for Title 24 applications must be set based on the Climate Zone where the system is installed. See Section 140.4 "Prescriptive Requirements for Space Conditioning Systems" of the California Energy Commission's 2019 Building Energy Efficiency Standards. Refer to Installation Instructions for complete setup information and menu parameters available.

High Performance Economizer Control Module

- Module provides inputs and outputs to control economizer based on parameter settings
- Module automatically detects sensors by polling to determine which sensors are installed in system
- Module displays any alarm messages (fault detection and diagnostics) as an aid in troubleshooting
- Non-volatile memory retains parameter settings in case of power failure
- Keypad with four navigation buttons and LCD screen is furnished for setting economizer parameters
 - Menu Up/Exit (⬆️) button returns to the main menu
 - Arrow Up (▲) button moves to the previous or next parameter within the selected menu
 - Arrow Down (▼) button moves to the next parameter within the selected menu
 - Select (enter) (↵) button confirms parameter selection

High Performance Economizer Control Module (continued)
Main Menu Structure:

- STATUS (economizer and system operation status)
- SETPOINTS (settings for various setpoint parameters)
- SYSTEM SETUP (settings/information about the system)
- ADVANCED SETUP (freeze protection, CO₂ settings, stage 3 delay, and additional calibration settings)
- CHECKOUT (damper positions)
- ALARMS (output signal that can be configured for remote alarm monitoring)

NOTE - Refer to Installation Instructions for complete setup information and menu parameters available.

Field Installed

Single Enthalpy Temperature Control (Not for Title 24)

- Outdoor air enthalpy sensor enables Economizer if the outdoor enthalpy is less than the setpoint of the control

OUTDOOR AIR

Field Installed

Outdoor Air Dampers - Downflow

- Single blade damper
- 0 to 25% (fixed) outdoor air adjustable
- Installs in unit
- Outdoor air hood is furnished
- Automatic model features fully modulating spring return damper motor with plug-in connection
- Manual model features a slide damper

NOTE - Maximum mixed air temperature in cooling mode is 100°F.

ROOF CURBS

Field Installed

Clip Curb (Full Perimeter)

- Interlocking tabs fasten corners together
- No tools required
- Fully gasketed around curb perimeter and supply and return openings
- Available in 8, 14, 18 and 24 inch heights
- Shipped knocked down

Adjustable Pitch Roof Curb (Full Perimeter)
Standard Curb

- Fully adjustable pitch curb provides a level platform for packaged units
- Allows flexible installations on roofs with sloped or uneven angles
- Adjustable from 2/12 to 6/12 pitch
- Fully gasketed around curb perimeter and supply and return openings
- Shipped knocked down

All Clip and Adjustable Pitch Curbs

- IBC 2018 compliant
- CBC 2019 compliant
- Seismic rating - SDS 2.0g, z/h=1, Ip=1.5
- Wind rating - 240 mph (Lateral), 214 mph (Uplift)
- Maximum load rating - 800 lbs.

Adaptor Curbs (not shown)

- Adaptor curbs are locally sourced

NOTE - Please contact your Allied representative for guidance in your area.

Strapping Kit - Hurricane

- Galvanized steel .07 in. thick minimum
- Attaches unit base rails to host structure

Strapping Kit - Seismic

- Heavy-gauge galvanized steel
- Kit contains 4 brackets and mounting hardware

OPTIONS / ACCESSORIES

| Item | Catalog No. | Model No. | | | |
|--|-----------------|-------------|--------|--------|--------|
| | | QGA036 | QGA042 | QGA048 | QGA060 |
| COOLING SYSTEM | | | | | |
| Compressor Crankcase Heater 230V 1-ph or 3-ph | 11X27 | X | X | X | X |
| Compressor Crankcase Heater 460V 3-ph | 21D21 | X | X | X | X |
| Compressor Timed-Off Control | 47J27 | X | X | X | X |
| Freezestat | 21D23 | X | X | X | X |
| Low Ambient Kit (40°F) | 21D20 | X | X | X | X |
| HEATING SYSTEM | | | | | |
| Gas Heat Input | 54 kBtuh input | Factory | X | | |
| | 72 kBtuh input | Factory | X | X | |
| | 90 kBtuh input | Factory | X | X | X |
| | 108 kBtuh input | Factory | | | X |
| | 126 kBtuh input | Factory | | | X |
| LPG/Propane Conversion Kit | 22B87 | X | X | X | X |
| Bottom Gas Entry Kit | 21D34 | X | X | X | X |
| Vertical Vent Extension Kit | 21J79 | X | X | X | X |
| CABINET | | | | | |
| Base Rail Openings Closure Kit | 21J84 | X | X | X | X |
| Square to Round Duct Adaptor Kits | Downflow | 14 in. dia. | 20X82 | X | |
| | | 14 in. dia. | 21D26 | | X |
| | | 14 in. dia. | 21J92 | X | |
| | Horizontal | 14 in. dia. | 21D24 | | X |
| | | 16 in. dia. | 22U78 | | X |
| | | 18 in. dia. | 22U79 | | X |
| Tool-Less Filter Access Kit | 21J80 | X | X | X | X |
| CONTROLS | | | | | |
| Smoke Detector - Supply or Return (one sensor) | 21U21 | X | X | X | X |
| Smoke Detector - Supply and Return (two sensors) | 21U22 | X | X | X | X |
| ELECTRICAL | | | | | |
| Bottom Power Entry Kit | 21J78 | X | X | X | X |
| ECONOMIZER | | | | | |
| Standard Economizer With Outdoor Air Hood (Not for Title 24) | | | | | |
| Downflow or Horizontal (Includes Barometric Relief Dampers and Exhaust Hood) | 21U15 | X | X | X | X |
| High Performance Economizer With Outdoor Air Hood (Approved for California Title 24 Building Standards / AMCA Class 1A Certified) | | | | | |
| Downflow or Horizontal (Includes Barometric Relief Dampers and Exhaust Hood) | 21U17 | X | X | X | X |
| Economizer Controls | | | | | |
| Single Enthalpy Control (Standard) | 21Z09 | X | X | X | X |
| Single Enthalpy Control (High Performance) | 11G21 | X | X | X | X |

X = Field Installed

OPTIONS / ACCESSORIES

| Item | Catalog No. | Model No. | | | |
|--|-------------|-----------|--------|--------|--------|
| | | QGA036 | QGA042 | QGA048 | QGA060 |
| OUTDOOR AIR | | | | | |
| Outdoor Air Dampers With Outdoor Air Hood | | | | | |
| Motorized | 21U19 | X | X | X | X |
| Manual | 21U20 | X | X | X | X |
| ROOF CURBS | | | | | |
| Clip Curbs | | | | | |
| 8 in height | 21J17 | X | X | X | X |
| 14 in height | 21J19 | X | X | X | X |
| 18 in height | 21J20 | X | X | X | X |
| 24 in height | 21J25 | X | X | X | X |
| Adjustable Pitch Roof Curb (Knock-Down Style) | | | | | |
| 14 in height | 21U04 | X | X | X | X |
| Adjustable Pitch Roof Curb (Welded Style) | | | | | |
| 14 in height | 22V55 | X | X | X | X |
| Strapping Kits for Roof Curbs | | | | | |
| Strapping Kit - Hurricane (Slab Mount) | 21J74 | X | X | X | X |
| Strapping Kit - Hurricane (Rail Mount) | 22G53 | X | X | X | X |
| Strapping Kit - Seismic | 21J75 | X | X | X | X |

X = Field Installed

SPECIFICATIONS

| General Data | | Nominal Tonnage | 3 Ton | 3.5 Ton | 4 Ton | 5 Ton |
|-----------------------------------|---|-----------------|------------------------------|--------------------|--------------------|--------------------|
| | Model Number | | QGA036S4D | QGA042S4D | QGA048S4D | QGA060S4D |
| | Efficiency Type | | Standard | Standard | Standard | Standard |
| | Blower Type | | Direct Drive (ECM) | Direct Drive (ECM) | Direct Drive (ECM) | Direct Drive (ECM) |
| Cooling Performance | Gross Cooling Capacity - Btuh | | 35,000 | 41,500 | 48,000 | 59,000 |
| | ¹ Net Cooling Capacity - Btuh | | 34,000 | 40,000 | 46,000 | 57,000 |
| | AHRI Rated Air Flow - cfm | | 1200 | 1400 | 1600 | 1800 |
| | Total Unit Power - kW | | 2.80 | 3.26 | 3.76 | 4.85 |
| | ¹ SEER | | 14.00 | 14.00 | 14.00 | 14.00 |
| | ¹ EER | | 11.50 | 11.50 | 11.50 | 11.50 |
| Refrigerant Charge | Refrigerant Type | | R-410A | R-410A | R-410A | R-410A |
| | | | 7 lbs. 0 oz. | 6 lbs 14 oz. | 7 lbs. 3 oz. | 8 lbs. 11 oz. |
| Gas Heating Options | | See Page 10 | | | | |
| Compressor Type | | | Scroll (1) | Scroll (1) | Scroll (1) | Scroll (1) |
| Outdoor Coil | Net face area (total) - sq. ft. | | 19.53 | 19.53 | 19.53 | 16.60 |
| | Tube diameter - in. | | 5/16 | 5/16 | 5/16 | 5/16 |
| | Number of rows | | 1 | 1 | 1 | 2 |
| | Fins per inch | | 26 | 26 | 26 | 22 |
| Outdoor Coil Fan | Motor - (No.) horsepower | | (1) 1/3 | (1) 1/3 | (1) 1/3 | (1) 1/3 |
| | Motor rpm | | 825 | 825 | 825 | 825 |
| | Total Motor Input - watts | | 280 | 280 | 280 | 280 |
| | Diameter - (No.) in. | | (1) 24 | (1) 24 | (1) 24 | (1) 24 |
| | Number of blades | | 3 | 3 | 3 | 3 |
| Indoor Coil | Net face area (total) - sq. ft. | | 6.75 | 6.75 | 6.75 | 6.75 |
| | Tube diameter - in. | | 5/16 | 5/16 | 5/16 | 3/8 |
| | Number of rows | | 3 | 3 | 3 | 3 |
| | Fins per inch | | 15 | 15 | 15 | 15 |
| | Drain connection (Number) and size - in. | | (1) 3/4 in. NPT coupling | | | |
| | Expansion device type | | Refrigerant Metering Orifice | | | |
| Indoor Blower | Nominal motor HP | | 0.75 HP (ECM) | 0.75 HP (ECM) | 1.0 HP (ECM) | 1.0 HP (ECM) |
| | Blower wheel nominal diameter x width - in. | | (1) 12 x 9 | (1) 12 x 9 | (1) 12 x 9 | (1) 12 x 10 |
| ² Filters | Type of filter | | Disposable | | | |
| | Number and size - in. | | (2) 20 x 20 x 1 | (2) 20 x 20 x 1 | (2) 20 x 20 x 1 | (2) 20 x 20 x 1 |
| Electrical characteristics | | | 208/230V or 460V-60Hz -3ph | | | |

NOTE - Net capacity includes evaporator blower motor heat deduction. Gross capacity does not include evaporator blower motor heat deduction.

¹ AHRI Certified to AHRI Standard 210/240: 95°F outdoor air temperature and 80°F db/67°F wb entering evaporator air; minimum external duct static pressure.

² Filters are not furnished and must be field provided.

SPECIFICATIONS - GAS HEAT

| General Data | Model No. | QGA036S4D | QGA036S4D QGA042S4D | QGA036S4D QGA042S4D QGA048S4D QGA060S4D | QGA048S4D QGA060S4D | QGA048S4D QGA060S4D |
|--------------------------------------|-----------|---|------------------------|--|------------------------|------------------------|
| Heating Capacity Btuh | Input | 54,000 | 72,000 | 90,000 | 108,000 | 126,000 |
| | Output | 43,740 | 58,320 | 72,900 | 87,480 | 102,060 |
| ¹ AFUE | | 81% | 81% | 81% | 81% | 81% |
| Temperature Rise - °F | | 30-60 | 30-60 | 35-65 | 40-70 | 45-75 |
| Gas Supply Connection (FPT) - in. | | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| Min. Recommended Gas Supply Pressure | | 5 in. w.g. Natural Gas, 11 in. w.g. LPG/Propane | | | | |

¹ Annual Fuel Utilization Efficiency based on U.S. DOE test procedures and FTC labeling regulations.

HIGH ALTITUDE DERATE

Units may be installed at altitudes up to 4500 feet above sea level without any modification. At altitudes above 4500 feet, units must be derated 4% for every 1000 feet above sea level. Example - At an altitude of 6000 feet the unit would require a derate of 24%.

NOTE - This is the only permissible derate for these units.

RATINGS

NOTE - For Temperatures and Capacities not shown in tables, see bulletin - Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

3 TON - QGA036S4D

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|------------------|---|-------------------|----------------------------|------|------|-----------------|-------------------|----------------------------|------|------|-----------------|-------------------|----------------------------|------|------|-----------------|-------------------|----------------------------|-------|------|-----------------|-------------------|----------------------------|------|-------|------|--|--|--|--|
| | | 85°F | | | | | | 95°F | | | | | | 105°F | | | | | | 115°F | | | | | | 125°F | | | | | |
| | | Total Cool Cap. | Comp. Motor Input | Sensible/Total Ratio (S/T) | | | Total Cool Cap. | Comp. Motor Input | Sensible/Total Ratio (S/T) | | | Total Cool Cap. | Comp. Motor Input | Sensible/Total Ratio (S/T) | | | Total Cool Cap. | Comp. Motor Input | Sensible/Total Ratio (S/T) | | | Total Cool Cap. | Comp. Motor Input | Sensible/Total Ratio (S/T) | | | | | | | |
| | | | | Dry Bulb | | | | | Dry Bulb | | | | | Dry Bulb | | | | | Dry Bulb | | | | | Dry Bulb | | | | | | | |
| | | cfm | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F | 85°F | | | | |
| 59°F | 1050 | 34.2 | 1.93 | .94 | 1.00 | 1.00 | 32.8 | 2.21 | .96 | 1.00 | 1.00 | 31.2 | 2.52 | .98 | 1.00 | 1.00 | 29.6 | 2.89 | 1.00 | 1.00 | 1.00 | 27.6 | 3.32 | 1.00 | 1.00 | 1.00 | | | | | |
| | 1200 | 35.6 | 1.93 | .97 | 1.00 | 1.00 | 34.0 | 2.21 | .99 | 1.00 | 1.00 | 32.4 | 2.52 | 1.00 | 1.00 | 1.00 | 30.6 | 2.89 | 1.00 | 1.00 | 1.00 | 28.6 | 3.33 | 1.00 | 1.00 | 1.00 | | | | | |
| | 1350 | 36.8 | 1.94 | 1.00 | 1.00 | 1.00 | 35.2 | 2.21 | 1.00 | 1.00 | 1.00 | 33.6 | 2.53 | 1.00 | 1.00 | 1.00 | 31.6 | 2.90 | 1.00 | 1.00 | 1.00 | 29.4 | 3.33 | 1.00 | 1.00 | 1.00 | | | | | |
| 63°F | 1050 | 35.0 | 1.93 | .76 | .91 | 1.00 | 33.2 | 2.20 | .78 | .93 | 1.00 | 31.6 | 2.52 | .80 | .95 | 1.00 | 29.6 | 2.88 | .83 | .98 | 1.00 | 27.6 | 3.32 | .86 | 1.00 | 1.00 | | | | | |
| | 1200 | 36.0 | 1.93 | .79 | .95 | 1.00 | 34.4 | 2.21 | .82 | .97 | 1.00 | 32.6 | 2.53 | .84 | .99 | 1.00 | 30.6 | 2.90 | .86 | 1.00 | 1.00 | 28.6 | 3.32 | .90 | 1.00 | 1.00 | | | | | |
| | 1350 | 37.0 | 1.94 | .83 | .98 | 1.00 | 35.2 | 2.22 | .85 | 1.00 | 1.00 | 33.6 | 2.53 | .87 | 1.00 | 1.00 | 31.6 | 2.90 | .90 | 1.00 | 1.00 | 29.4 | 3.32 | .93 | 1.00 | 1.00 | | | | | |
| 67°F | 1050 | 37.0 | 1.94 | .60 | .74 | .88 | 35.2 | 2.21 | .61 | .76 | .90 | 33.4 | 2.53 | .61 | .78 | .92 | 31.2 | 2.90 | .63 | .80 | .95 | 28.8 | 3.33 | .66 | .84 | .98 | | | | | |
| | 1200 | 38.0 | 1.95 | .62 | .77 | .92 | 36.0 | 2.21 | .63 | .79 | .94 | 34.0 | 2.53 | .64 | .82 | .96 | 31.8 | 2.89 | .65 | .84 | .99 | 29.4 | 3.32 | .69 | .88 | 1.00 | | | | | |
| | 1350 | 38.5 | 1.95 | .64 | .80 | .95 | 36.8 | 2.22 | .64 | .83 | .97 | 34.6 | 2.53 | .66 | .85 | 1.00 | 32.4 | 2.90 | .68 | .88 | 1.00 | 30.0 | 3.32 | .71 | .92 | 1.00 | | | | | |
| 71°F | 1050 | 39.0 | 1.95 | .45 | .59 | .72 | 37.2 | 2.22 | .45 | .60 | .73 | 35.2 | 2.53 | .46 | .59 | .75 | 33.0 | 2.90 | .45 | .61 | .78 | 30.6 | 3.33 | .46 | .63 | .82 | | | | | |
| | 1200 | 40.0 | 1.95 | .46 | .61 | .75 | 38.0 | 2.23 | .46 | .62 | .77 | 36.0 | 2.54 | .47 | .62 | .79 | 33.8 | 2.90 | .47 | .64 | .82 | 31.0 | 3.33 | .47 | .68 | .86 | | | | | |
| | 1350 | 41.0 | 1.96 | .47 | .63 | .79 | 39.0 | 2.23 | .47 | .64 | .81 | 36.6 | 2.54 | .48 | .65 | .83 | 34.2 | 2.90 | .48 | .67 | .86 | 31.6 | 3.33 | .48 | .71 | .90 | | | | | |

3.5 TON - QGA042S4D

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|------------------|---|-------------------|----------------------------|------|------|-----------------|-------------------|----------------------------|------|------|-----------------|-------------------|----------------------------|------|------|-----------------|-------------------|----------------------------|-------|------|-----------------|-------------------|----------------------------|------|-------|------|--|--|--|--|
| | | 85°F | | | | | | 95°F | | | | | | 105°F | | | | | | 115°F | | | | | | 125°F | | | | | |
| | | Total Cool Cap. | Comp. Motor Input | Sensible/Total Ratio (S/T) | | | Total Cool Cap. | Comp. Motor Input | Sensible/Total Ratio (S/T) | | | Total Cool Cap. | Comp. Motor Input | Sensible/Total Ratio (S/T) | | | Total Cool Cap. | Comp. Motor Input | Sensible/Total Ratio (S/T) | | | Total Cool Cap. | Comp. Motor Input | Sensible/Total Ratio (S/T) | | | | | | | |
| | | | | Dry Bulb | | | | | Dry Bulb | | | | | Dry Bulb | | | | | Dry Bulb | | | | | Dry Bulb | | | | | | | |
| | | cfm | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F | 85°F | | | | |
| 59°F | 1225 | 40.0 | 2.33 | .93 | 1.00 | 1.00 | 38.0 | 2.67 | .95 | 1.00 | 1.00 | 36.4 | 3.06 | .97 | 1.00 | 1.00 | 34.4 | 3.49 | .99 | 1.00 | 1.00 | 32.2 | 3.99 | 1.00 | 1.00 | 1.00 | | | | | |
| | 1400 | 41.5 | 2.33 | .96 | 1.00 | 1.00 | 39.5 | 2.67 | .98 | 1.00 | 1.00 | 37.8 | 3.05 | 1.00 | 1.00 | 1.00 | 35.6 | 3.48 | 1.00 | 1.00 | 1.00 | 33.4 | 3.98 | 1.00 | 1.00 | 1.00 | | | | | |
| | 1575 | 42.5 | 2.33 | .99 | 1.00 | 1.00 | 41.0 | 2.66 | 1.00 | 1.00 | 1.00 | 39.0 | 3.04 | 1.00 | 1.00 | 1.00 | 36.8 | 3.49 | 1.00 | 1.00 | 1.00 | 34.4 | 3.98 | 1.00 | 1.00 | 1.00 | | | | | |
| 63°F | 1225 | 40.5 | 2.33 | .76 | .91 | 1.00 | 39.0 | 2.67 | .77 | .92 | 1.00 | 36.8 | 3.05 | .80 | .94 | 1.00 | 34.6 | 3.50 | .82 | .97 | 1.00 | 32.2 | 3.99 | .85 | .99 | 1.00 | | | | | |
| | 1400 | 42.0 | 2.33 | .79 | .94 | 1.00 | 40.0 | 2.67 | .81 | .96 | 1.00 | 37.8 | 3.05 | .83 | .98 | 1.00 | 35.8 | 3.49 | .86 | 1.00 | 1.00 | 33.4 | 3.98 | .89 | 1.00 | 1.00 | | | | | |
| | 1575 | 43.0 | 2.33 | .82 | .97 | 1.00 | 41.0 | 2.66 | .84 | .99 | 1.00 | 39.0 | 3.05 | .87 | 1.00 | 1.00 | 36.8 | 3.49 | .89 | 1.00 | 1.00 | 34.4 | 3.97 | .92 | 1.00 | 1.00 | | | | | |
| 67°F | 1225 | 43.0 | 2.33 | .60 | .73 | .87 | 41.0 | 2.67 | .60 | .75 | .90 | 39.0 | 3.05 | .61 | .77 | .92 | 36.4 | 3.48 | .63 | .80 | .94 | 33.6 | 3.98 | .65 | .83 | .97 | | | | | |
| | 1400 | 44.0 | 2.32 | .62 | .76 | .91 | 42.0 | 2.66 | .63 | .79 | .93 | 39.5 | 3.04 | .63 | .81 | .95 | 37.0 | 3.49 | .65 | .84 | .98 | 34.4 | 3.98 | .68 | .87 | 1.00 | | | | | |
| | 1575 | 45.0 | 2.32 | .64 | .80 | .95 | 43.0 | 2.66 | .64 | .82 | .96 | 40.5 | 3.04 | .65 | .85 | .98 | 37.6 | 3.48 | .68 | .88 | 1.00 | 35.0 | 3.98 | .71 | .90 | 1.00 | | | | | |
| 71°F | 1225 | 45.5 | 2.32 | .45 | .59 | .72 | 43.0 | 2.66 | .46 | .60 | .73 | 41.0 | 3.05 | .46 | .60 | .75 | 38.5 | 3.48 | .45 | .61 | .78 | 35.4 | 3.96 | .45 | .65 | .81 | | | | | |
| | 1400 | 46.5 | 2.32 | .46 | .61 | .75 | 44.5 | 2.65 | .46 | .62 | .76 | 42.0 | 3.04 | .45 | .62 | .78 | 39.0 | 3.47 | .46 | .64 | .82 | 36.2 | 3.98 | .47 | .67 | .85 | | | | | |
| | 1575 | 47.5 | 2.31 | .46 | .63 | .78 | 45.0 | 2.65 | .46 | .63 | .80 | 42.5 | 3.03 | .46 | .65 | .83 | 40.0 | 3.47 | .47 | .67 | .86 | 36.8 | 3.97 | .50 | .70 | .89 | | | | | |

RATINGS

NOTE – For Temperatures and Capacities not shown in tables, see bulletin – Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

4 TON - QGA048S4D

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|------------------|---|-------------------|----------------------------|------|-------|-----------------|-------------------|----------------------------|------|-------|-----------------|-------------------|----------------------------|------|-------|-----------------|-------------------|----------------------------|-------|-------|-----------------|-------------------|----------------------------|------|-------|--|--|--|--|--|
| | | 85°F | | | | | | 95°F | | | | | | 105°F | | | | | | 115°F | | | | | | 125°F | | | | | |
| | | Total Cool Cap. | Comp. Motor Input | Sensible/Total Ratio (S/T) | | | Total Cool Cap. | Comp. Motor Input | Sensible/Total Ratio (S/T) | | | Total Cool Cap. | Comp. Motor Input | Sensible/Total Ratio (S/T) | | | Total Cool Cap. | Comp. Motor Input | Sensible/Total Ratio (S/T) | | | Total Cool Cap. | Comp. Motor Input | Sensible/Total Ratio (S/T) | | | | | | | |
| | | | | Dry Bulb | | | | | Dry Bulb | | | | | Dry Bulb | | | | | Dry Bulb | | | | | Dry Bulb | | | | | | | |
| cfm | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F | 85°F | | | | | | |
| 59°F | 1400 | 44.0 | 2.70 | .91 | 1.00 | 1.00 | 42.5 | 3.08 | .93 | 1.00 | 1.00 | 40.5 | 3.52 | .95 | 1.00 | 1.00 | 38.5 | 4.07 | .97 | 1.00 | 1.00 | 35.8 | 4.68 | .99 | 1.00 | 1.00 | | | | | |
| | 1600 | 46.5 | 2.70 | .95 | 1.00 | 1.00 | 44.5 | 3.08 | .97 | 1.00 | 1.00 | 42.0 | 3.52 | .98 | 1.00 | 1.00 | 40.0 | 4.05 | .99 | 1.00 | 1.00 | 37.2 | 4.65 | 1.00 | 1.00 | 1.00 | | | | | |
| | 1800 | 48.0 | 2.69 | .98 | 1.00 | 1.00 | 46.0 | 3.07 | .99 | 1.00 | 1.00 | 43.5 | 3.52 | 1.00 | 1.00 | 1.00 | 41.0 | 4.04 | 1.00 | 1.00 | 1.00 | 38.5 | 4.66 | 1.00 | 1.00 | 1.00 | | | | | |
| 63°F | 1400 | 46.0 | 2.70 | .75 | .88 | .99 | 43.5 | 3.07 | .76 | .90 | .99 | 41.5 | 3.52 | .77 | .92 | 1.00 | 38.5 | 4.06 | .79 | .95 | 1.00 | 36.0 | 4.68 | .82 | .97 | 1.00 | | | | | |
| | 1600 | 47.5 | 2.70 | .77 | .92 | 1.00 | 45.0 | 3.07 | .78 | .94 | 1.00 | 42.5 | 3.52 | .80 | .96 | 1.00 | 40.0 | 4.05 | .82 | .98 | 1.00 | 37.4 | 4.67 | .86 | .99 | 1.00 | | | | | |
| | 1800 | 48.5 | 2.70 | .80 | .95 | 1.00 | 46.0 | 3.07 | .81 | .97 | 1.00 | 44.0 | 3.51 | .83 | .98 | 1.00 | 41.0 | 4.04 | .86 | .99 | 1.00 | 38.5 | 4.67 | .89 | 1.00 | 1.00 | | | | | |
| 67°F | 1400 | 49.0 | 2.70 | .58 | .72 | .85 | 46.5 | 3.06 | .60 | .74 | .87 | 44.0 | 3.52 | .60 | .75 | .89 | 41.0 | 4.05 | .62 | .77 | .92 | 38.0 | 4.67 | .64 | .80 | .95 | | | | | |
| | 1600 | 50.5 | 2.69 | .61 | .75 | .88 | 48.0 | 3.07 | .61 | .76 | .91 | 45.0 | 3.52 | .63 | .78 | .93 | 42.0 | 4.04 | .64 | .80 | .96 | 39.0 | 4.66 | .65 | .83 | .98 | | | | | |
| | 1800 | 51.5 | 2.70 | .62 | .78 | .92 | 48.5 | 3.06 | .63 | .79 | .95 | 46.0 | 3.51 | .64 | .81 | .97 | 43.0 | 4.03 | .66 | .84 | .98 | 40.5 | 4.65 | .68 | .87 | 1.00 | | | | | |
| 71°F | 1400 | 52.0 | 2.69 | .43 | .57 | .70 | 49.5 | 3.06 | .43 | .58 | .71 | 47.0 | 3.51 | .44 | .59 | .73 | 44.0 | 4.03 | .45 | .60 | .75 | 40.5 | 4.65 | .43 | .62 | .77 | | | | | |
| | 1600 | 53.5 | 2.69 | .44 | .59 | .73 | 51.0 | 3.06 | .44 | .61 | .74 | 48.0 | 3.49 | .45 | .61 | .76 | 45.0 | 4.02 | .44 | .63 | .78 | 41.5 | 4.64 | .45 | .65 | .81 | | | | | |
| | 1800 | 54.5 | 2.68 | .45 | .61 | .75 | 52.0 | 3.06 | .45 | .62 | .77 | 49.0 | 3.50 | .45 | .63 | .79 | 46.0 | 4.02 | .46 | .65 | .82 | 42.5 | 4.63 | .46 | .67 | .85 | | | | | |

5 TON - QGA060S4D

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|------------------|---|-------------------|----------------------------|------|-------|-----------------|-------------------|----------------------------|------|-------|-----------------|-------------------|----------------------------|------|-------|-----------------|-------------------|----------------------------|-------|-------|-----------------|-------------------|----------------------------|------|-------|--|--|--|--|--|
| | | 85°F | | | | | | 95°F | | | | | | 105°F | | | | | | 115°F | | | | | | 125°F | | | | | |
| | | Total Cool Cap. | Comp. Motor Input | Sensible/Total Ratio (S/T) | | | Total Cool Cap. | Comp. Motor Input | Sensible/Total Ratio (S/T) | | | Total Cool Cap. | Comp. Motor Input | Sensible/Total Ratio (S/T) | | | Total Cool Cap. | Comp. Motor Input | Sensible/Total Ratio (S/T) | | | Total Cool Cap. | Comp. Motor Input | Sensible/Total Ratio (S/T) | | | | | | | |
| | | | | Dry Bulb | | | | | Dry Bulb | | | | | Dry Bulb | | | | | Dry Bulb | | | | | Dry Bulb | | | | | | | |
| cfm | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F | 85°F | | | | | | |
| 59°F | 1700 | 54.5 | 3.42 | .88 | .99 | 1.00 | 52.0 | 3.89 | .90 | .99 | 1.00 | 49.5 | 4.44 | .91 | 1.00 | 1.00 | 47.0 | 5.05 | .94 | 1.00 | 1.00 | 44.0 | 5.78 | .96 | 1.00 | 1.00 | | | | | |
| | 1800 | 55.5 | 3.43 | .89 | .99 | 1.00 | 53.0 | 3.90 | .91 | 1.00 | 1.00 | 50.5 | 4.44 | .93 | 1.00 | 1.00 | 48.0 | 5.07 | .95 | 1.00 | 1.00 | 45.0 | 5.76 | .97 | 1.00 | 1.00 | | | | | |
| | 2250 | 59.5 | 3.43 | .95 | 1.00 | 1.00 | 57.0 | 3.91 | .96 | 1.00 | 1.00 | 54.0 | 4.41 | .98 | 1.00 | 1.00 | 51.0 | 5.05 | .99 | 1.00 | 1.00 | 47.5 | 5.76 | 1.00 | 1.00 | 1.00 | | | | | |
| 63°F | 1700 | 57.0 | 3.42 | .72 | .85 | .96 | 54.5 | 3.90 | .73 | .86 | .98 | 51.5 | 4.42 | .75 | .88 | .99 | 48.0 | 5.04 | .77 | .90 | 1.00 | 45.0 | 5.76 | .78 | .93 | 1.00 | | | | | |
| | 1800 | 58.0 | 3.43 | .73 | .86 | .98 | 55.0 | 3.89 | .74 | .88 | .99 | 52.0 | 4.42 | .76 | .90 | .99 | 48.5 | 5.05 | .77 | .92 | 1.00 | 45.5 | 5.78 | .80 | .95 | 1.00 | | | | | |
| | 2250 | 60.5 | 3.43 | .77 | .92 | 1.00 | 57.5 | 3.90 | .78 | .93 | 1.00 | 54.5 | 4.43 | .80 | .96 | 1.00 | 51.0 | 5.05 | .82 | .98 | 1.00 | 48.0 | 5.77 | .85 | .99 | 1.00 | | | | | |
| 67°F | 1700 | 60.5 | 3.42 | .58 | .70 | .82 | 57.5 | 3.89 | .58 | .71 | .83 | 54.5 | 4.43 | .59 | .72 | .85 | 51.0 | 5.04 | .61 | .74 | .87 | 47.5 | 5.75 | .62 | .76 | .90 | | | | | |
| | 1800 | 61.5 | 3.43 | .58 | .71 | .83 | 58.0 | 3.90 | .59 | .72 | .85 | 55.0 | 4.42 | .60 | .74 | .87 | 51.5 | 5.04 | .61 | .76 | .89 | 48.0 | 5.75 | .62 | .77 | .92 | | | | | |
| | 2250 | 64.0 | 3.43 | .61 | .75 | .89 | 60.5 | 3.90 | .62 | .77 | .91 | 57.5 | 4.43 | .63 | .78 | .93 | 53.5 | 5.05 | .64 | .80 | .96 | 49.5 | 5.76 | .65 | .83 | .98 | | | | | |
| 71°F | 1700 | 64.5 | 3.44 | .42 | .56 | .68 | 61.0 | 3.89 | .43 | .57 | .69 | 58.0 | 4.43 | .43 | .58 | .70 | 54.0 | 5.05 | .44 | .59 | .72 | 50.0 | 5.77 | .45 | .61 | .74 | | | | | |
| | 1800 | 65.0 | 3.43 | .42 | .57 | .69 | 61.5 | 3.90 | .44 | .58 | .70 | 58.5 | 4.44 | .44 | .58 | .71 | 54.5 | 5.03 | .44 | .60 | .73 | 50.5 | 5.76 | .45 | .62 | .75 | | | | | |
| | 2250 | 68.0 | 3.44 | .44 | .59 | .73 | 64.0 | 3.90 | .45 | .61 | .74 | 60.5 | 4.42 | .45 | .61 | .76 | 56.5 | 5.03 | .46 | .64 | .78 | 52.5 | 5.78 | .47 | .65 | .81 | | | | | |

BLOWER DATA**QGA036S4D**

| Blower Tap | External Static (in.w.g.) | | | | | | | | | | |
|-------------------------------|---------------------------|------|------|------|------|------|------|------|------|------|------|
| | | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 |
| Tap 1 (Fan Only) | Cfm | 819 | 756 | 692 | 625 | 564 | 503 | 436 | 367 | --- | --- |
| | RPM | 542 | 580 | 619 | 661 | 701 | 737 | 776 | 810 | --- | --- |
| | Watts | 91 | 96 | 102 | 107 | 112 | 117 | 123 | 127 | --- | --- |
| Tap 2 (Low Cooling) | Cfm | 1271 | 1226 | 1193 | 1149 | 1105 | 1062 | 1016 | 970 | 928 | 884 |
| | RPM | 760 | 786 | 809 | 836 | 862 | 889 | 919 | 947 | 974 | 1001 |
| | Watts | 262 | 270 | 277 | 285 | 292 | 301 | 309 | 317 | 325 | 333 |
| Tap 3 (High Cooling) | Cfm | 1587 | 1542 | 1507 | 1473 | 1439 | 1402 | 1365 | 1332 | 1298 | 1254 |
| | RPM | 906 | 929 | 953 | 973 | 994 | 1013 | 1036 | 1057 | 1080 | 1102 |
| | Watts | 472 | 482 | 492 | 501 | 511 | 520 | 529 | 539 | 549 | 557 |
| Tap 4 (54k Heat Exchanger) | Cfm | 1058 | 1008 | 958 | 905 | 856 | 802 | 749 | 700 | 650 | 598 |
| | RPM | 654 | 683 | 712 | 742 | 779 | 810 | 842 | 872 | 902 | 934 |
| | Watts | 164 | 169 | 175 | 182 | 188 | 195 | 201 | 208 | 213 | 221 |
| Tap 5 (54k Heat Exchanger) | Cfm | 1318 | 1276 | 1235 | 1202 | 1157 | 1116 | 1072 | 1028 | 985 | 945 |
| | RPM | 786 | 813 | 836 | 860 | 886 | 910 | 939 | 968 | 995 | 1022 |
| | Watts | 293 | 302 | 309 | 317 | 324 | 332 | 341 | 350 | 358 | 367 |
| Tap 4 (72k Heat Exchanger) | Cfm | 1120 | 1063 | 1003 | 938 | 871 | 799 | 725 | 670 | 614 | 554 |
| | RPM | 588 | 621 | 643 | 681 | 714 | 721 | 758 | 775 | 794 | 817 |
| | Watts | 136 | 143 | 151 | 158 | 166 | 176 | 184 | 191 | 198 | 205 |
| Tap 5 (72k Heat Exchanger) | Cfm | 1394 | 1344 | 1296 | 1247 | 1205 | 1152 | 1097 | 1043 | 984 | 913 |
| | RPM | 600 | 640 | 693 | 740 | 798 | 830 | 872 | 930 | 960 | 1012 |
| | Watts | 237 | 246 | 255 | 264 | 273 | 282 | 293 | 302 | 314 | 325 |
| Tap 4 (90k Heat Exchanger) | Cfm | 1600 | 1556 | 1511 | 1468 | 1425 | 1382 | 1339 | 1295 | 1247 | 1207 |
| | RPM | 767 | 796 | 820 | 847 | 874 | 902 | 927 | 955 | 983 | 1010 |
| | Watts | 357 | 367 | 376 | 387 | 396 | 406 | 416 | 427 | 436 | 448 |
| Tap 5 (90k Heat Exchanger) | Cfm | 1918 | 1878 | 1840 | 1805 | 1767 | 1733 | 1694 | 1660 | 1625 | 1586 |
| | RPM | 893 | 917 | 937 | 958 | 982 | 1002 | 1028 | 1050 | 1074 | 1095 |
| | Watts | 597 | 609 | 620 | 631 | 643 | 652 | 667 | 679 | 693 | 701 |

NOTE - All air data is measured external to unit with dry coil and without air filters.

BLOWER DATA**QGA042S4D**

| Blower Tap | External Static (in.w.g.) | | | | | | | | | | |
|-------------------------------|---------------------------|------|------|------|------|------|------|------|------|------|------|
| | | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 |
| Tap 1 (Fan Only) | Cfm | 810 | 734 | 650 | 550 | 477 | 400 | 338 | --- | --- | --- |
| | RPM | 466 | 514 | 566 | 619 | 668 | 712 | 749 | --- | --- | --- |
| | Watts | 70 | 75 | 82 | 88 | 93 | 98 | 102 | --- | --- | --- |
| Tap 2 (Low Cooling) | Cfm | 1575 | 1519 | 1475 | 1438 | 1411 | 1376 | 1341 | 1294 | 1252 | 1209 |
| | RPM | 777 | 805 | 832 | 857 | 882 | 908 | 937 | 968 | 995 | 1024 |
| | Watts | 370 | 382 | 394 | 405 | 416 | 428 | 440 | 454 | 467 | 478 |
| Tap 3 (High Cooling) | Cfm | 1899 | 1858 | 1821 | 1783 | 1751 | 1714 | 1679 | 1639 | 1604 | 1570 |
| | RPM | 886 | 910 | 931 | 954 | 976 | 998 | 1023 | 1048 | 1071 | 1092 |
| | Watts | 579 | 591 | 603 | 615 | 626 | 637 | 650 | 663 | 676 | 684 |
| Tap 4 (72k Heat Exchanger) | Cfm | 1115 | 1056 | 996 | 933 | 866 | 792 | 733 | 677 | 610 | 551 |
| | RPM | 597 | 609 | 626 | 654 | 693 | 718 | 754 | 767 | 795 | 814 |
| | Watts | 137 | 145 | 152 | 159 | 167 | 178 | 182 | 190 | 199 | 206 |
| Tap 5 (72k Heat Exchanger) | Cfm | 1437 | 1391 | 1342 | 1294 | 1247 | 1202 | 1152 | 1098 | 1040 | 974 |
| | RPM | 597 | 642 | 694 | 736 | 787 | 823 | 874 | 927 | 963 | 1008 |
| | Watts | 235 | 239 | 246 | 255 | 264 | 275 | 282 | 293 | 302 | 310 |
| Tap 4 (90k Heat Exchanger) | Cfm | 1601 | 1551 | 1507 | 1467 | 1422 | 1379 | 1336 | 1290 | 1244 | 1203 |
| | RPM | 766 | 794 | 820 | 847 | 873 | 898 | 927 | 956 | 984 | 1011 |
| | Watts | 354 | 365 | 376 | 385 | 394 | 404 | 415 | 425 | 435 | 445 |
| Tap 5 (90k Heat Exchanger) | Cfm | 1910 | 1872 | 1834 | 1800 | 1763 | 1730 | 1691 | 1654 | 1620 | 1579 |
| | RPM | 893 | 913 | 938 | 957 | 980 | 1004 | 1027 | 1048 | 1072 | 1094 |
| | Watts | 593 | 604 | 618 | 627 | 641 | 653 | 666 | 677 | 689 | 698 |

NOTE - All air data is measured external to unit with dry coil and without air filters.

BLOWER DATA**QGA048S4D**

| Blower Tap | External Static (in.w.g.) | | | | | | | | | | |
|--------------------------------|---------------------------|------|------|------|------|------|------|------|------|------|------|
| | | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 |
| Tap 1 (Fan Only) | Cfm | 1096 | 1033 | 967 | 898 | 832 | 755 | 680 | 613 | 547 | 482 |
| | RPM | 565 | 601 | 638 | 682 | 724 | 766 | 808 | 843 | 880 | 910 |
| | Watts | 131 | 137 | 144 | 152 | 161 | 169 | 177 | 183 | 190 | 196 |
| Tap 2 (Low Cooling) | Cfm | 1907 | 1868 | 1832 | 1792 | 1755 | 1717 | 1683 | 1644 | 1607 | 1571 |
| | RPM | 885 | 909 | 933 | 954 | 976 | 1001 | 1022 | 1047 | 1071 | 1095 |
| | Watts | 499 | 509 | 521 | 532 | 542 | 554 | 565 | 577 | 589 | 601 |
| Tap 3 (High Cooling) | Cfm | 2021 | 1983 | 1945 | 1911 | 1873 | 1838 | 1802 | 1768 | 1733 | 1687 |
| | RPM | 919 | 941 | 964 | 984 | 1002 | 1028 | 1050 | 1072 | 1093 | 1114 |
| | Watts | 625 | 638 | 651 | 663 | 674 | 689 | 702 | 715 | 728 | 734 |
| Tap 4 (90k Heat Exchanger) | Cfm | 1545 | 1497 | 1452 | 1403 | 1356 | 1309 | 1256 | 1209 | 1159 | 1108 |
| | RPM | 732 | 759 | 787 | 816 | 843 | 871 | 903 | 934 | 962 | 995 |
| | Watts | 299 | 310 | 320 | 329 | 341 | 349 | 359 | 371 | 380 | 391 |
| Tap 5 (90k Heat Exchanger) | Cfm | 1836 | 1794 | 1752 | 1711 | 1674 | 1632 | 1592 | 1553 | 1511 | 1465 |
| | RPM | 843 | 864 | 890 | 913 | 936 | 960 | 985 | 1009 | 1033 | 1062 |
| | Watts | 476 | 487 | 500 | 509 | 521 | 532 | 544 | 555 | 566 | 581 |
| Tap 4 (108k Heat Exchanger) | Cfm | 1568 | 1515 | 1467 | 1417 | 1369 | 1324 | 1273 | 1226 | 1172 | 1117 |
| | RPM | 709 | 739 | 769 | 797 | 827 | 857 | 887 | 921 | 953 | 988 |
| | Watts | 292 | 302 | 313 | 323 | 334 | 343 | 354 | 366 | 377 | 390 |
| Tap 5 (108k Heat Exchanger) | Cfm | 1939 | 1893 | 1851 | 1809 | 1769 | 1726 | 1687 | 1652 | 1612 | 1572 |
| | RPM | 843 | 867 | 891 | 917 | 941 | 969 | 993 | 1015 | 1041 | 1065 |
| | Watts | 515 | 526 | 540 | 553 | 566 | 579 | 592 | 604 | 617 | 630 |
| Tap 4 (126k Heat Exchanger) | Cfm | 1651 | 1597 | 1553 | 1505 | 1461 | 1416 | 1369 | 1316 | 1264 | 1221 |
| | RPM | 746 | 776 | 803 | 831 | 857 | 887 | 914 | 944 | 977 | 1007 |
| | Watts | 338 | 350 | 360 | 371 | 381 | 392 | 403 | 415 | 426 | 437 |
| Tap 5 (126k Heat Exchanger) | Cfm | 1943 | 1899 | 1855 | 1816 | 1773 | 1733 | 1692 | 1655 | 1616 | 1576 |
| | RPM | 857 | 880 | 904 | 928 | 953 | 977 | 1001 | 1025 | 1048 | 1073 |
| | Watts | 528 | 540 | 552 | 565 | 578 | 590 | 603 | 615 | 629 | 641 |

NOTE - All air data is measured external to unit with dry coil and without air filters.

BLOWER DATA**QGA060S4D**

| Blower Tap | External Static (in.w.g.) | | | | | | | | | | |
|--------------------------------|---------------------------|------|------|------|------|------|------|------|------|------|------|
| | | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 |
| Tap 1 (Fan Only) | Cfm | 1393 | 1332 | 1275 | 1224 | 1166 | 1106 | 1043 | 979 | 909 | 836 |
| | RPM | 620 | 654 | 690 | 722 | 758 | 793 | 831 | 872 | 913 | 946 |
| | Watts | 184 | 192 | 201 | 209 | 218 | 226 | 236 | 246 | 256 | 264 |
| Tap 2 (Low Cooling) | Cfm | 1907 | 1868 | 1832 | 1792 | 1755 | 1717 | 1683 | 1644 | 1607 | 1571 |
| | RPM | 885 | 909 | 933 | 954 | 976 | 1001 | 1022 | 1047 | 1071 | 1095 |
| | Watts | 499 | 509 | 521 | 532 | 542 | 554 | 565 | 577 | 589 | 601 |
| Tap 3 (High Cooling) | Cfm | 2387 | 2350 | 2317 | 2271 | 2245 | 2210 | 2172 | 2149 | 2098 | 2057 |
| | RPM | 967 | 983 | 1004 | 1031 | 1049 | 1069 | 1093 | 1109 | 1125 | 1145 |
| | Watts | 784 | 795 | 809 | 829 | 841 | 856 | 870 | 878 | 880 | 885 |
| Tap 4 (90k Heat Exchanger) | Cfm | 1469 | 1410 | 1356 | 1304 | 1247 | 1196 | 1138 | 1079 | 1020 | 947 |
| | RPM | 642 | 678 | 711 | 739 | 776 | 809 | 845 | 880 | 919 | 957 |
| | Watts | 207 | 217 | 226 | 234 | 244 | 253 | 263 | 273 | 283 | 293 |
| Tap 5 (90k Heat Exchanger) | Cfm | 1838 | 1792 | 1744 | 1699 | 1654 | 1612 | 1568 | 1519 | 1474 | 1430 |
| | RPM | 769 | 796 | 822 | 850 | 872 | 899 | 928 | 958 | 982 | 1011 |
| | Watts | 375 | 382 | 392 | 404 | 414 | 424 | 437 | 449 | 460 | 471 |
| Tap 4 (108k Heat Exchanger) | Cfm | 1648 | 1595 | 1546 | 1493 | 1447 | 1398 | 1352 | 1305 | 1256 | 1211 |
| | RPM | 729 | 759 | 786 | 813 | 843 | 870 | 897 | 927 | 960 | 993 |
| | Watts | 298 | 309 | 318 | 328 | 338 | 347 | 357 | 367 | 379 | 390 |
| Tap 5 (108k Heat Exchanger) | Cfm | 2033 | 1990 | 1946 | 1904 | 1862 | 1821 | 1781 | 1743 | 1705 | 1665 |
| | RPM | 868 | 893 | 914 | 940 | 961 | 986 | 1006 | 1030 | 1051 | 1075 |
| | Watts | 525 | 540 | 550 | 562 | 573 | 585 | 596 | 608 | 619 | 633 |
| Tap 4 (126k Heat Exchanger) | Cfm | 1639 | 1584 | 1539 | 1492 | 1446 | 1399 | 1355 | 1308 | 1258 | 1210 |
| | RPM | 737 | 766 | 795 | 825 | 853 | 881 | 909 | 941 | 970 | 1005 |
| | Watts | 301 | 311 | 322 | 332 | 342 | 353 | 362 | 373 | 383 | 394 |
| Tap 5 (126k Heat Exchanger) | Cfm | 1988 | 1945 | 1899 | 1856 | 1822 | 1785 | 1743 | 1707 | 1671 | 1636 |
| | RPM | 864 | 890 | 914 | 939 | 961 | 987 | 1011 | 1035 | 1058 | 1081 |
| | Watts | 507 | 520 | 532 | 545 | 557 | 569 | 581 | 593 | 605 | 616 |

NOTE - All air data is measured external to unit with dry coil and without air filters.

BLOWER DATA

AIR RESISTANCE DATA - in. w.g.

| Air Volume cfm | Wet Indoor Coil | | | Optional Economizer |
|-------------------|-----------------|------|------|------------------------|
| | 036, 042 | 048 | 060 | |
| 600 | 0.01 | 0.01 | --- | 0.02 |
| 700 | 0.01 | 0.01 | 0.01 | 0.03 |
| 800 | 0.01 | 0.01 | 0.01 | 0.04 |
| 900 | 0.02 | 0.01 | 0.01 | 0.05 |
| 1000 | 0.02 | 0.02 | 0.02 | 0.06 |
| 1100 | 0.02 | 0.02 | 0.02 | 0.07 |
| 1200 | 0.03 | 0.02 | 0.02 | 0.08 |
| 1300 | 0.03 | 0.03 | 0.03 | 0.10 |
| 1400 | 0.04 | 0.03 | 0.03 | 0.12 |
| 1500 | 0.05 | 0.04 | 0.03 | 0.13 |
| 1600 | 0.05 | 0.05 | 0.03 | 0.15 |
| 1700 | 0.05 | 0.05 | 0.04 | 0.18 |
| 1800 | 0.06 | 0.05 | 0.04 | 0.20 |
| 1900 | 0.06 | 0.06 | 0.04 | 0.21 |
| 2000 | 0.07 | 0.06 | 0.05 | 0.24 |

DUCT ADAPTER RESISTANCE DATA - in. w.g.

| Air Volume cfm | Rectangular to Round Duct Adaptor Kits | | | | | |
|-------------------|--|------------|-----------------|------------|-----------------|-----------------|
| | Downflow | | Horizontal | | | |
| | 14 in. Diameter | | 14 in. Diameter | | 16 in. Diameter | 18 in. Diameter |
| | 24, 30, 36 | 42, 48, 60 | 24, 30, 36 | 42, 48, 60 | 42, 48, 60 | 42, 48, 60 |
| 500 | 0.03 | --- | 0.04 | --- | --- | --- |
| 600 | 0.05 | --- | 0.07 | --- | --- | --- |
| 700 | 0.08 | 0.13 | 0.08 | 0.13 | --- | --- |
| 800 | 0.10 | 0.17 | 0.12 | 0.16 | --- | --- |
| 900 | 0.12 | 0.21 | 0.15 | 0.21 | --- | --- |
| 1000 | 0.17 | 0.24 | 0.19 | 0.25 | 0.11 | 0.03 |
| 1100 | 0.18 | 0.30 | 0.23 | 0.30 | 0.11 | 0.03 |
| 1200 | 0.20 | 0.36 | 0.29 | 0.37 | 0.13 | 0.03 |
| 1300 | 0.26 | 0.43 | 0.31 | 0.43 | 0.17 | 0.03 |
| 1400 | 0.31 | 0.50 | 0.39 | 0.51 | 0.20 | 0.03 |
| 1500 | --- | 0.57 | --- | 0.57 | 0.21 | 0.05 |
| 1600 | --- | 0.63 | --- | 0.65 | 0.26 | 0.05 |
| 1700 | --- | 0.71 | --- | 0.72 | 0.30 | 0.06 |
| 1800 | --- | 0.80 | --- | 0.81 | 0.30 | 0.06 |
| 1900 | --- | 0.91 | --- | 0.90 | 0.40 | 0.06 |
| 2000 | --- | 0.99 | --- | 1.01 | 0.41 | 0.06 |

ELECTRICAL DATA

| Model No. | | QGA036S4D | |
|--|-------------------|--------------|----------|
| ¹ Voltage - 60Hz | | 208/230V-3ph | 460V-3ph |
| Compressor | Rated Load Amps | 9 | 5.8 |
| | Locked Rotor Amps | 71 | 38 |
| Outdoor Fan Motor | Full Load Amps | 1.8 | 1 |
| Indoor Blower Motor | Horsepower | 0.75 | 0.75 |
| | Type | ECM | ECM |
| | Full Load Amps | 6 | 3.2 |
| ² Maximum Overcurrent Protection (MOCP) | Unit Only | 25 | 15 |
| ³ Minimum Circuit Ampacity (MCA) | Unit Only | 19.2 | 11.6 |

| Model No. | | QGA042S4D | |
|--|-------------------|--------------|----------|
| ¹ Voltage - 60Hz | | 208/230V-3ph | 460V-3ph |
| Compressor | Rated Load Amps | 11.2 | 5.6 |
| | Locked Rotor Amps | 84 | 44 |
| Outdoor Fan Motor | Full Load Amps | 1.8 | 1 |
| Indoor Blower Motor | Horsepower | 0.75 | 0.75 |
| | Type | ECM | ECM |
| | Full Load Amps | 6 | 3.2 |
| ² Maximum Overcurrent Protection (MOCP) | Unit Only | 30 | 15 |
| ³ Minimum Circuit Ampacity (MCA) | Unit Only | 22 | 11.4 |

| Model No. | | QGA048S4D | |
|--|-------------------|--------------|----------|
| ¹ Voltage - 60Hz | | 208/230V-3ph | 460V-3ph |
| Compressor | Rated Load Amps | 13.8 | 6.1 |
| | Locked Rotor Amps | 83 | 43 |
| Outdoor Fan Motor | Full Load Amps | 1.8 | 1 |
| Indoor Blower Motor | Horsepower | 1.0 | 1.0 |
| | Type | ECM | ECM |
| | Full Load Amps | 7.6 | 4 |
| ² Maximum Overcurrent Protection (MOCP) | Unit Only | 40 | 15 |
| ³ Minimum Circuit Ampacity (MCA) | Unit Only | 26.8 | 12.8 |

| Model No. | | QGA060S4D | |
|--|-------------------|--------------|----------|
| ¹ Voltage - 60Hz | | 208/230V-3ph | 460V-3ph |
| Compressor | Rated Load Amps | 13.2 | 6.3 |
| | Locked Rotor Amps | 93 | 60 |
| Outdoor Fan Motor | Full Load Amps | 1.8 | 1 |
| Indoor Blower Motor | Horsepower | 1.0 | 1.0 |
| | Type | ECM | ECM |
| | Full Load Amps | 7.6 | 4 |
| ² Maximum Overcurrent Protection (MOCP) | Unit Only | 35 | 15 |
| ³ Minimum Circuit Ampacity (MCA) | Unit Only | 26.1 | 13.2 |

NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 5000 amps.

¹ Extremes of operating range are plus and minus 10% of line voltage.

² HACR type breaker or fuse.

³ Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

| WEIGHT DATA | | | | UNIT |
|--------------|------|-----|----------|------|
| Model Number | Net | | Shipping | |
| | lbs. | kg | lbs. | kg |
| QGA036 | 506 | 230 | 516 | 234 |
| QGA042 | 527 | 239 | 537 | 244 |
| QGA048 | 550 | 249 | 560 | 254 |
| QGA060 | 568 | 258 | 578 | 262 |

| WEIGHT DATA | | OPTIONS / ACCESSORIES | |
|---|--|-----------------------|----|
| | | Shipping | |
| | | lbs. | kg |
| CABINET | | | |
| Tool-Less Filter Access Kit | | 20 | 9 |
| ECONOMIZER / OUTDOOR AIR | | | |
| Economizer | | | |
| Economizer, Includes Barometric Relief Dampers and Exhaust Hood | | 95 | 43 |
| Outdoor Air Dampers | | | |
| Motorized | | 35 | 16 |
| Manual | | 28 | 13 |
| GAS HEAT EXCHANGER (Net Weight) | | | |
| Medium Heat (adder over standard heat) | | 3 | 1 |
| High Heat (adder over standard heat) | | 6 | 3 |
| ROOF CURBS | | | |
| Clip Curbs | | | |
| 8 in. height | | 63 | 29 |
| 14 in. height | | 77 | 35 |
| 18 in. height | | 99 | 45 |
| 24 in. height | | 132 | 60 |
| Adjustable Pitch Roof Curb (Knock-Down Style), Downflow | | | |
| 14 in. height | | 95 | 43 |
| Adjustable Pitch Roof Curb (Welded), Downflow | | | |
| 14 in. height | | 68 | 31 |

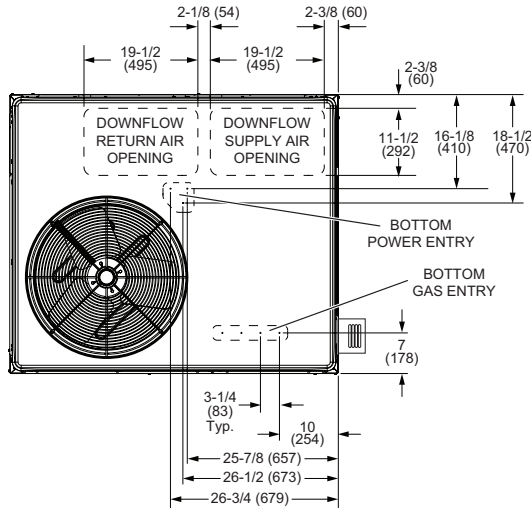
| INSTALLATION CLEARANCES | | |
|--|-----|------|
| | in. | mm |
| Front (heat exchanger access) | 24 | 610 |
| Right Side (blower and evaporator coil access) | 24 | 610 |
| Left Side (compressor access) | 24 | 610 |
| Back | 0 | 0 |
| Top | 48 | 1219 |

| MINIMUM CLEARANCE TO COMBUSTIBLE MATERIAL | | |
|---|-----|-----|
| | in. | mm |
| Front | 0 | 0 |
| Back | 0 | 0 |
| Right Side (vent cover) | 12 | 305 |
| Left Side | 0 | 0 |
| Top | 0 | 0 |
| Below Unit | 0 | 0 |

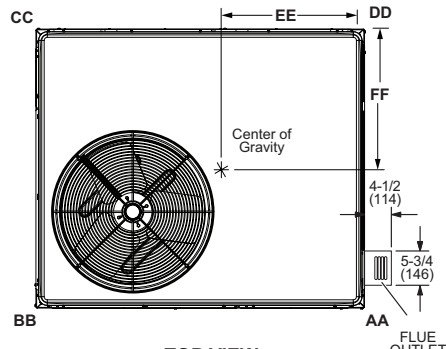
DIMENSIONS

UNIT

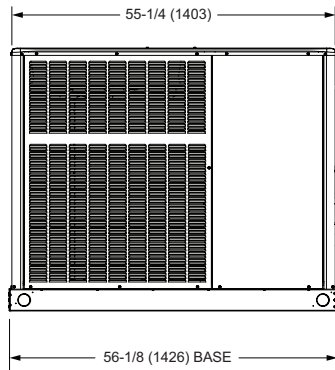
| Model Number | CORNER WEIGHTS | | | | | | | | CENTER OF GRAVITY | | | |
|--------------|----------------|----|------|----|------|----|------|----|-------------------|-----|-------|-----|
| | AA | | BB | | CC | | DD | | EE | | FF | |
| | lbs. | kg | lbs. | kg | lbs. | kg | lbs. | kg | in. | mm | in. | mm |
| QGA036 | 122 | 55 | 123 | 56 | 131 | 59 | 131 | 59 | 27.50 | 699 | 21.75 | 552 |
| QGA042 | 127 | 58 | 128 | 58 | 137 | 62 | 136 | 62 | 27.50 | 699 | 21.75 | 552 |
| QGA048 | 133 | 60 | 133 | 60 | 143 | 65 | 142 | 64 | 27.50 | 699 | 21.75 | 552 |
| QGA060 | 137 | 62 | 138 | 63 | 147 | 67 | 147 | 67 | 27.50 | 699 | 21.75 | 552 |



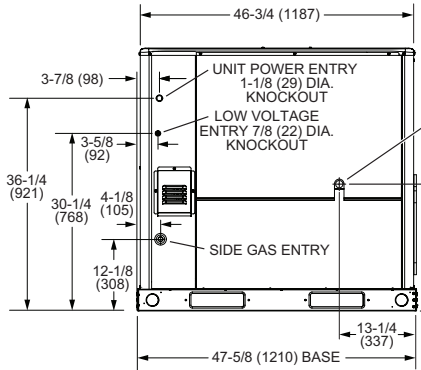
TOP VIEW (Base)



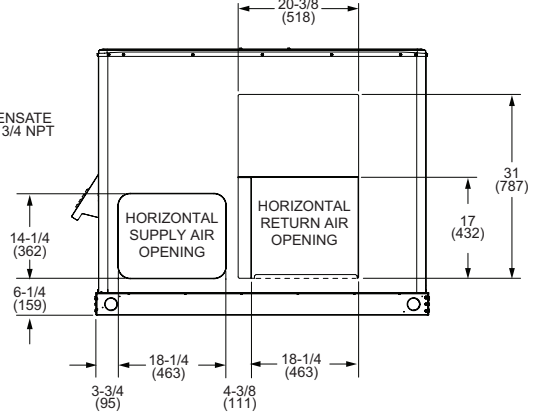
TOP VIEW (Corner Weight and Center of Gravity)



FRONT VIEW

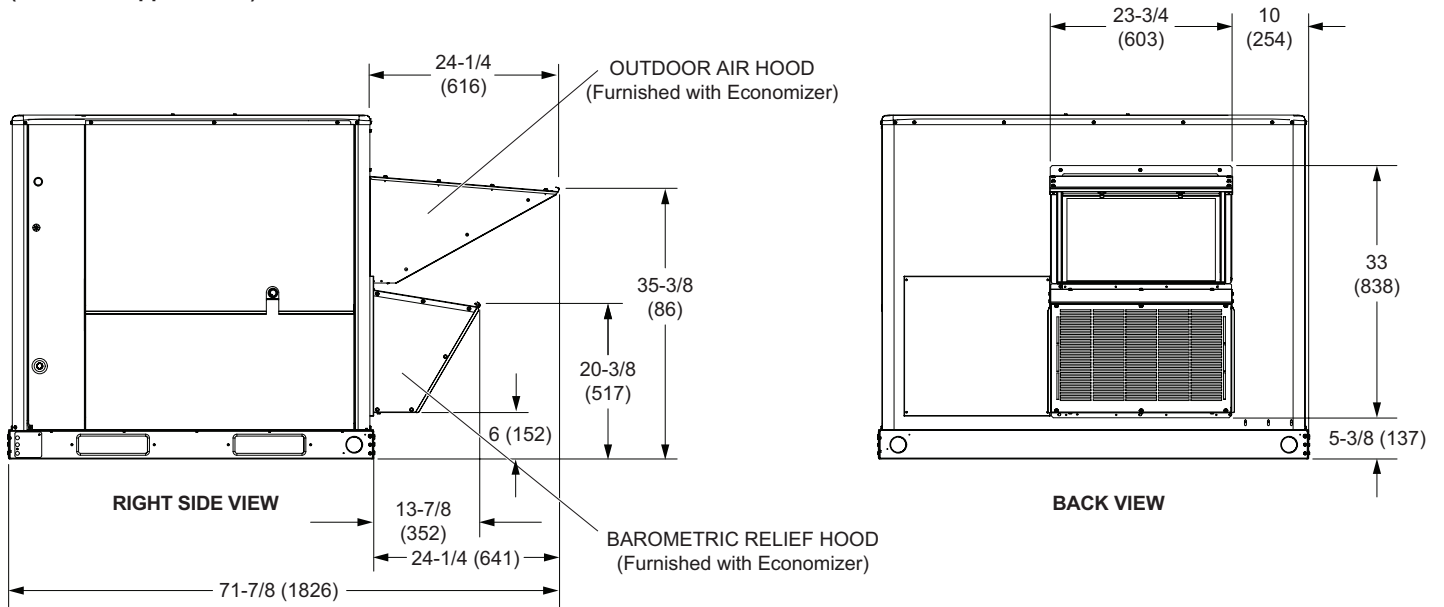


RIGHT SIDE VIEW

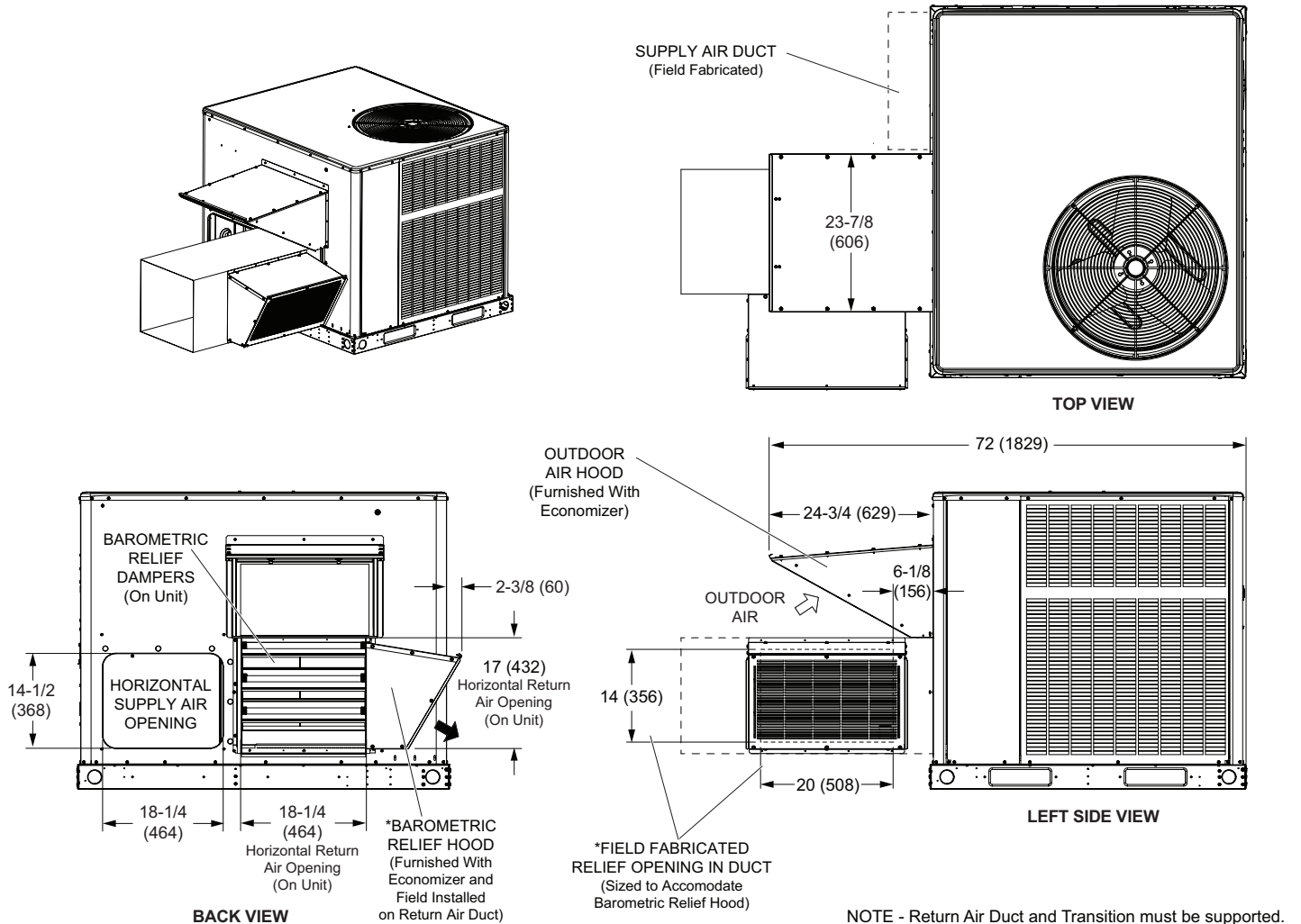


BACK VIEW

**OUTDOOR AIR HOOD DETAIL FOR OPTIONAL ECONOMIZER WITH BAROMETRIC RELIEF DAMPERS
(Downflow Applications)**



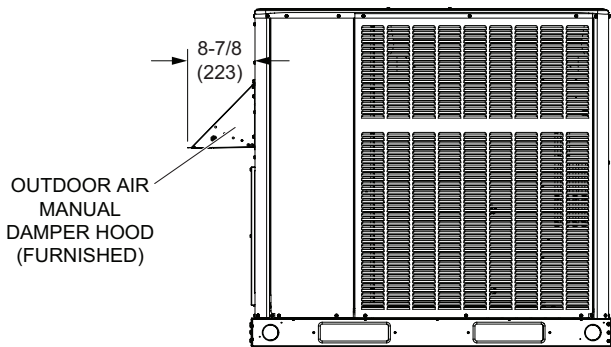
**OUTDOOR AIR HOOD DETAIL FOR OPTIONAL ECONOMIZER WITH BAROMETRIC RELIEF DAMPERS
(Horizontal Applications)**



NOTE - Return Air Duct and Transition must be supported.

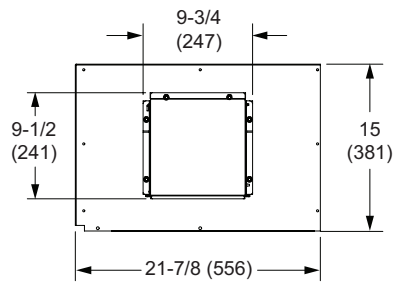
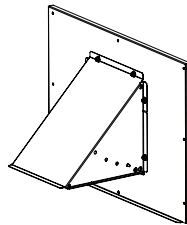
OUTDOOR AIR HOOD DETAIL FOR OPTIONAL OUTDOOR AIR DAMPERS

MANUAL OUTDOOR AIR DAMPERS

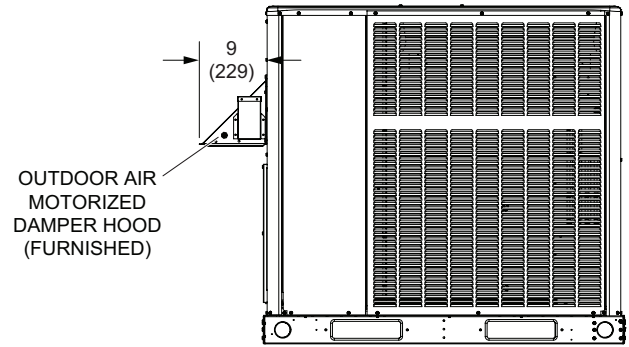


OUTDOOR AIR
MANUAL
DAMPER HOOD
(FURNISHED)

LEFT SIDE VIEW

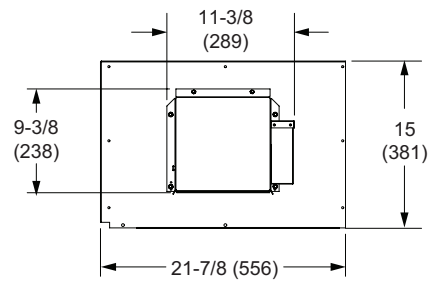
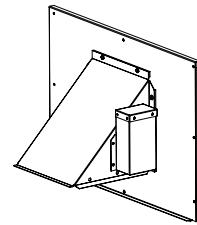


MOTORIZED OUTDOOR AIR DAMPERS



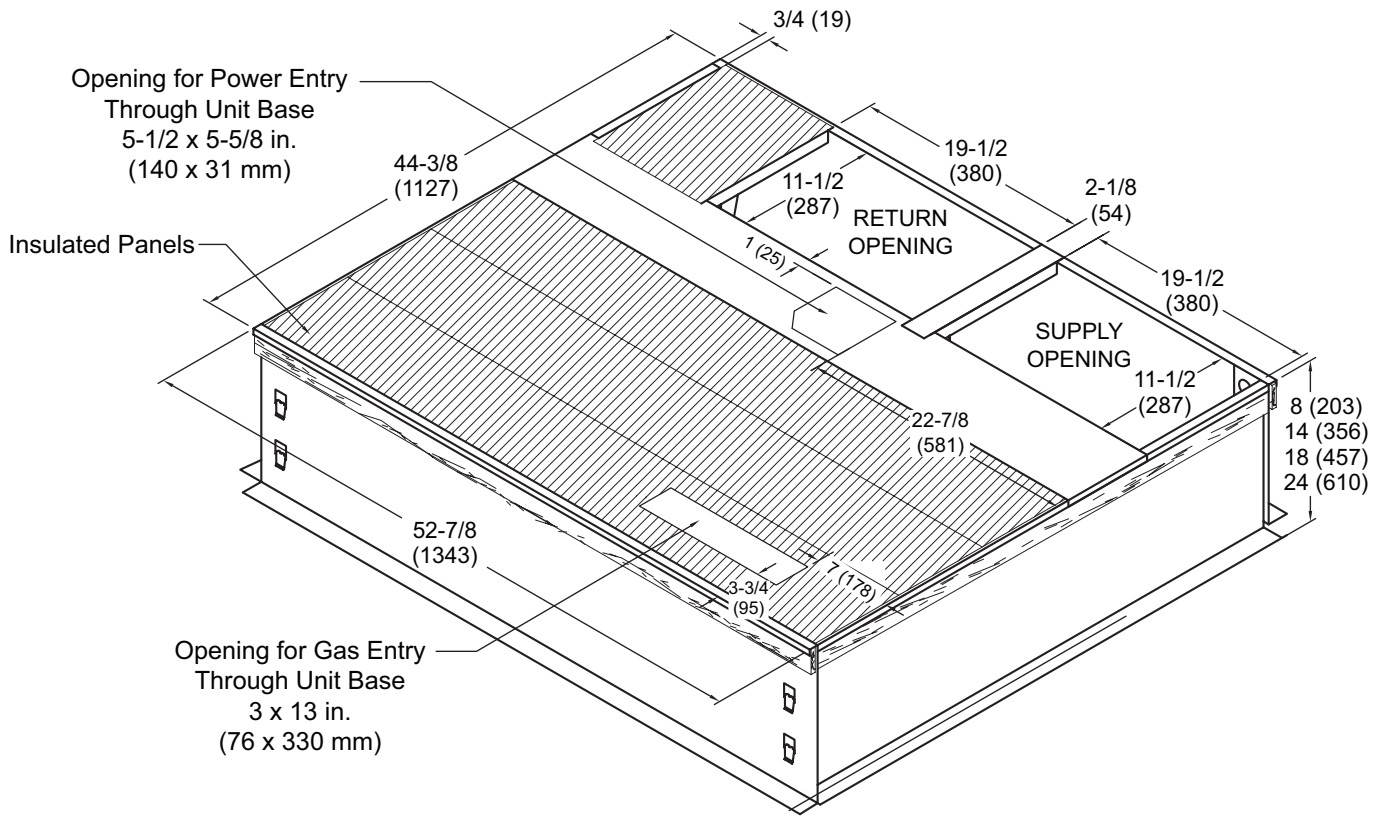
OUTDOOR AIR
MOTORIZED
DAMPER HOOD
(FURNISHED)

LEFT SIDE VIEW



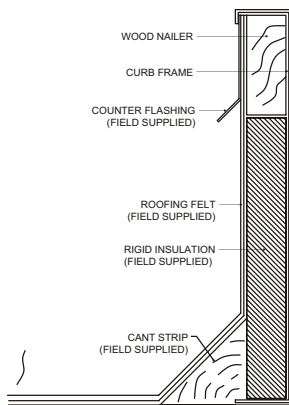
NOTE - Outdoor Air Hood and Panel
replaces existing panel on unit.

CLIP CURB

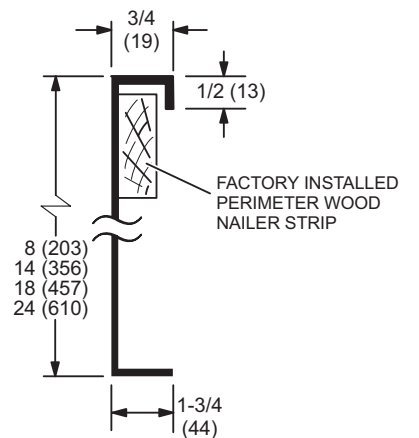


NOTE - Roof deck may be omitted within confines of curb.

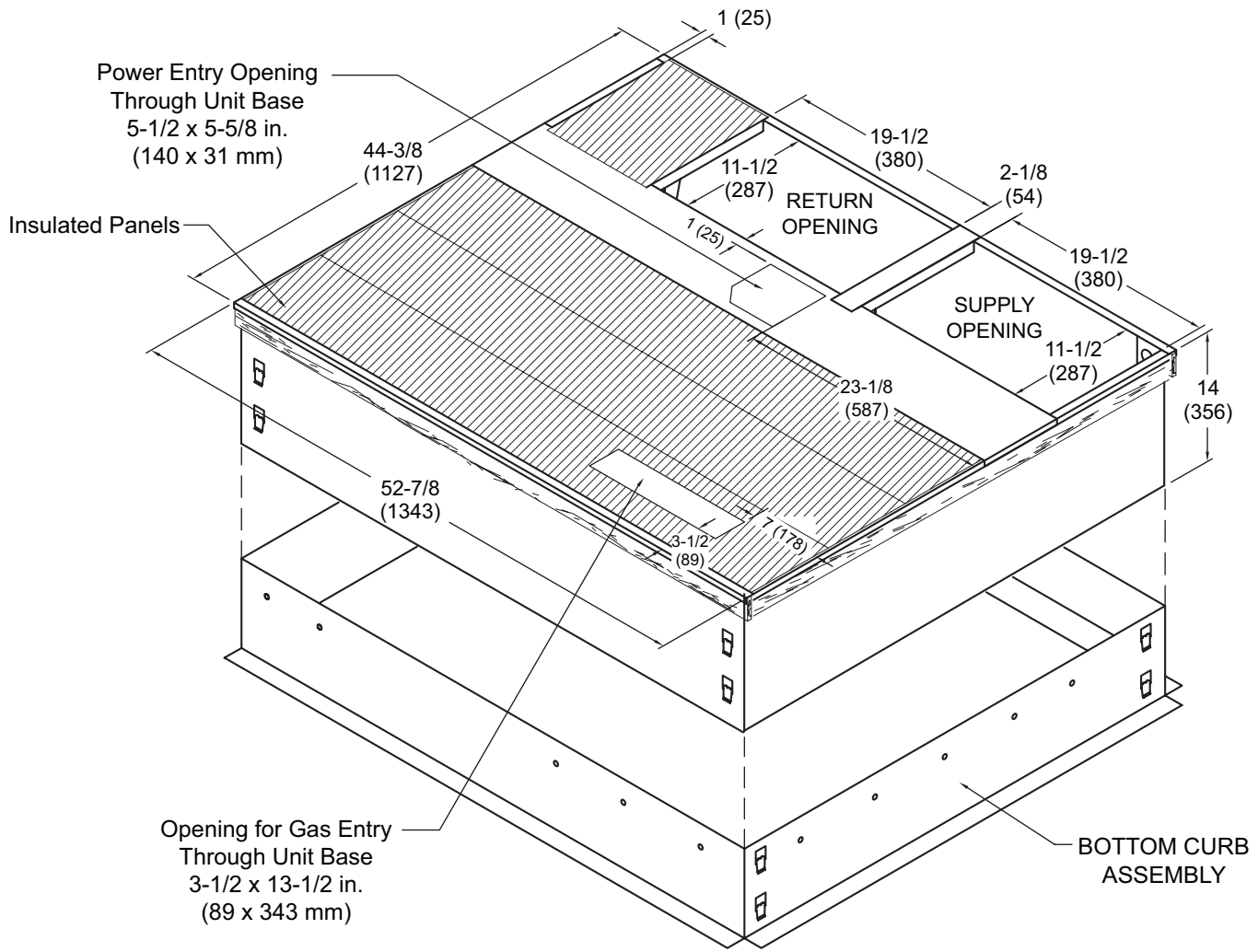
TYPICAL FLASHING DETAIL FOR ROOF CURB



DETAIL ROOF CURB

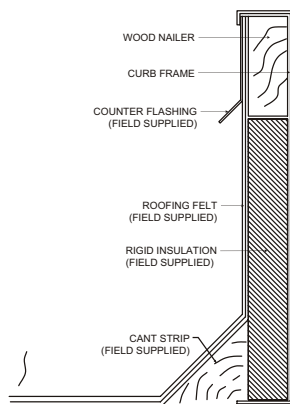


ADJUSTABLE PITCH ROOF CURB (KNOCK-DOWN STYLE)

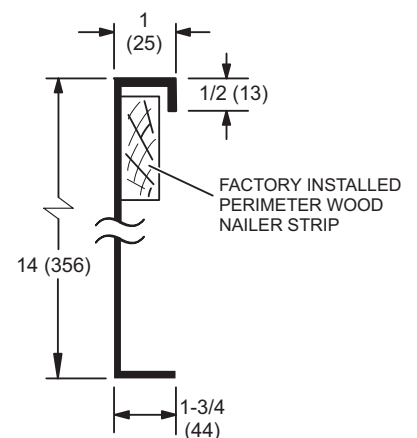


NOTE - Roof deck may be omitted within confines of curb.

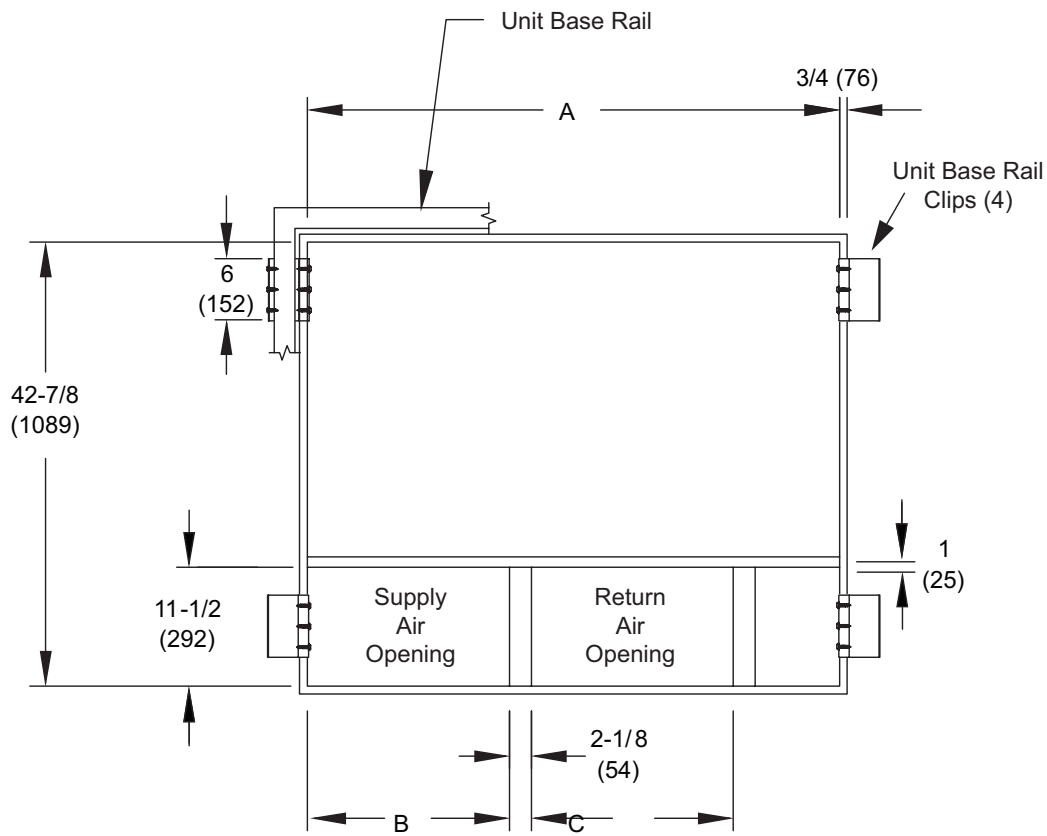
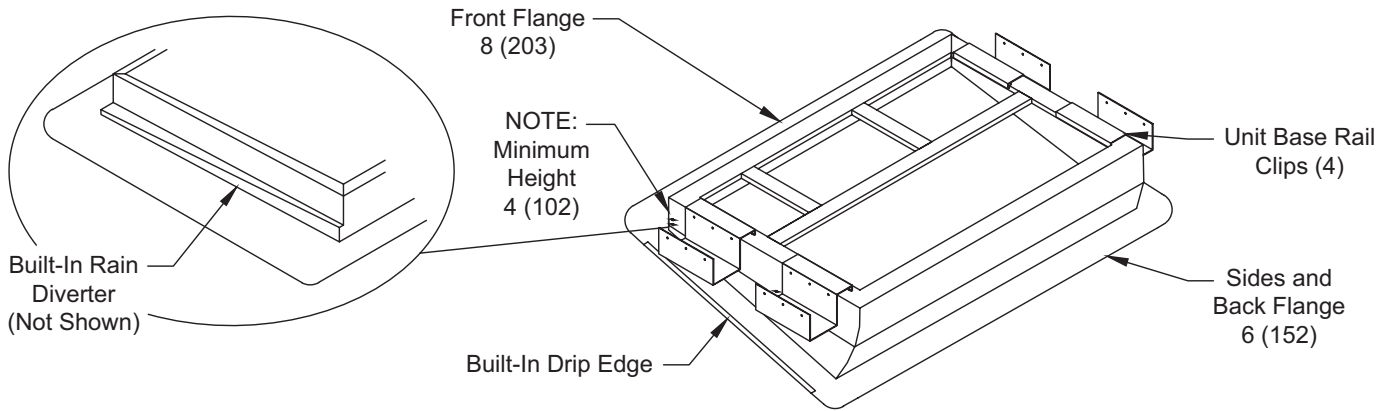
TYPICAL FLASHING DETAIL FOR ROOF CURB



DETAIL ROOF CURB



ADJUSTABLE PITCH ROOF CURB (WELDED STYLE)



| USAGE | A | | B | | C | |
|----------|--------|------|--------|-----|--------|-----|
| | in. | mm | in. | mm | in. | mm |
| 24,30,36 | 42-7/8 | 1089 | 13-7/8 | 352 | 16-7/8 | 429 |
| 42,48,60 | 51-3/8 | 1305 | 19-1/2 | 495 | 19-1/2 | 495 |



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