



**COMMERCIAL
PRODUCT SPECIFICATIONS**

PACKAGED GAS / ELECTRIC

QGA

Q-SERIES™

Standard Efficiency - Three-Phase - 60 Hz

Bulletin No. 310939
June 2021

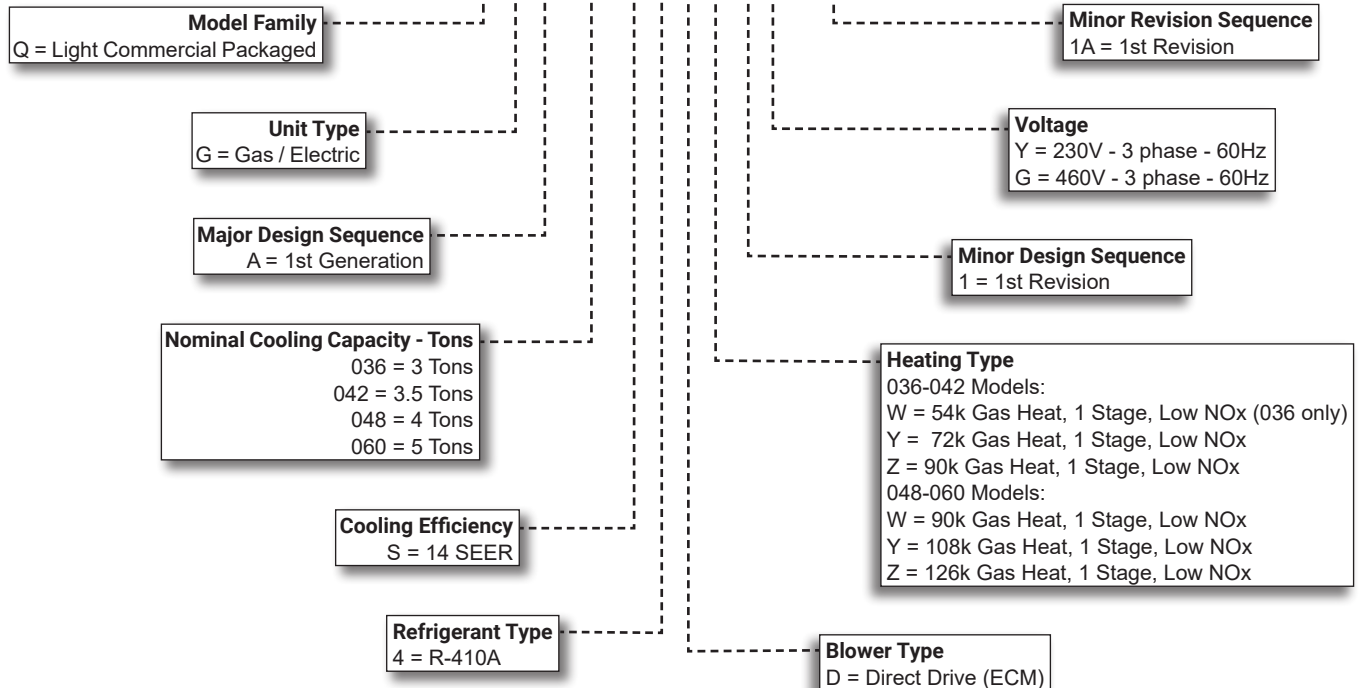


**SEER - 14.00
AFUE - 81%
3 to 5 Tons**

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

MODEL NUMBER IDENTIFICATION

QGA060S4DW1Y-1A



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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

California Only

- If installed in South Coast Air Quality Management District (SCAQMD) only:
 - This gas unit does not meet the SCAQMD Rule 1111 NOx 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 NOx 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 Kits	Honeywell	11U77	X	X	X
	White-Rodgers	22B87	X	X	X
Bottom Gas Entry Kit		21D34	X	X	X
Vertical Vent Extension Kit		21J79	X	X	X
CABINET					
Base Rail Openings Closure Kit		21J84	X	X	X
Square to Round Duct Adaptor Kits (14 in. diameter)	Downflow	21D26	X	X	X
	Horizontal	21D24	X	X	X
Tool-Less Filter Access Kit		21J80	X	X	X
CONTROLS					
Smoke Detector - Supply or Return (one sensor)		21U21	X	X	X
Smoke Detector - Supply and Return (two sensors)		21U22	X	X	X
ELECTRICAL					
Bottom Power Entry Kit		21J78	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
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
Economizer Controls					
Single Enthalpy Control (Standard)		21Z09	X	X	X
Single Enthalpy Control (High Performance)		11G21	X	X	X
OUTDOOR AIR					
Outdoor Air Dampers With Outdoor Air Hood					
Motorized		21U19	X	X	X
Manual		21U20	X	X	X

X = Field Installed

OPTIONS / ACCESSORIES

Item	Catalog No.	Model No.			
		QGA036	QGA042	QGA048	QGA060
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					
14 in height	21U04	X	X	X	X
Strapping Kits for Roof Curbs					
Strapping Kit - Hurricane	21J74	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	Horizontal 21D24	Downflow 21D26
700	0.13	0.13
800	0.16	0.17
900	0.21	0.21
1000	0.25	0.24
1100	0.3	0.3
1200	0.37	0.36
1300	0.43	0.43
1400	0.51	0.5
1500	0.57	0.57
1600	0.65	0.63
1700	0.72	0.71
1800	0.81	0.8
1900	0.9	0.91
2000	1.01	0.99

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 Curb, Downflow			
14 in. height		95	43

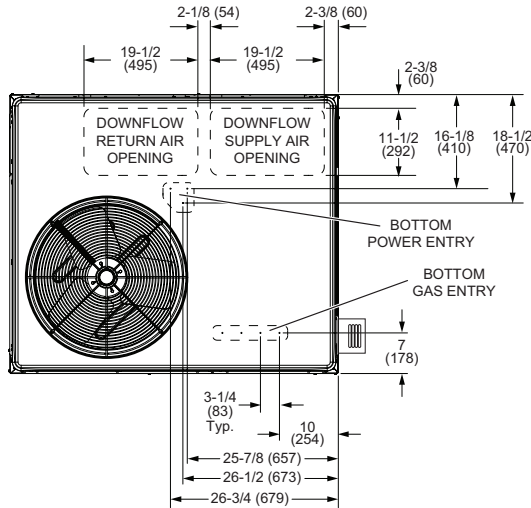
INSTALLATION CLEARANCES		
	in.	mm
Front (heat exchanger access)	24	610
Right Side (blower and evaporator coil access)	24	610
Left Side (compressor access)	24	610
Back	0	0
Top	48	1219

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

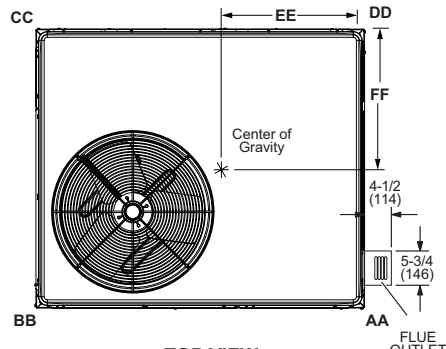
DIMENSIONS

UNIT

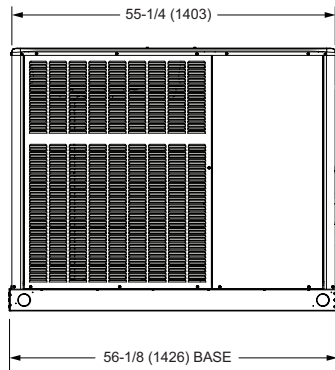
Model Number	CORNER WEIGHTS								CENTER OF GRAVITY			
	AA		BB		CC		DD		EE		FF	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm
QGA036	122	55	123	56	131	59	131	59	27.50	699	21.75	552
QGA042	127	58	128	58	137	62	136	62	27.50	699	21.75	552
QGA048	133	60	133	60	143	65	142	64	27.50	699	21.75	552
QGA060	137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



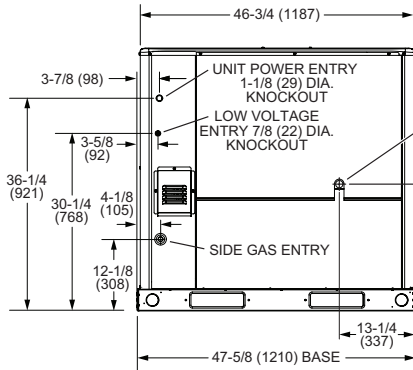
TOP VIEW (Base)



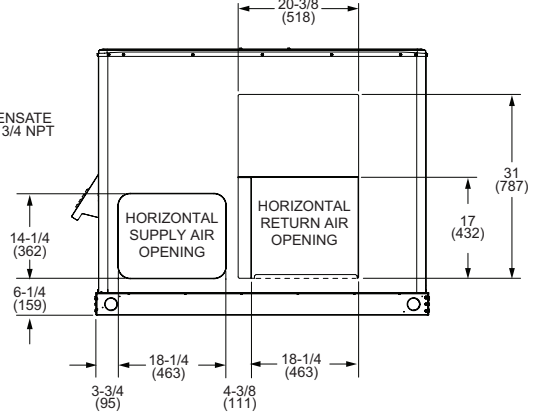
TOP VIEW (Corner Weight and Center of Gravity)



FRONT VIEW

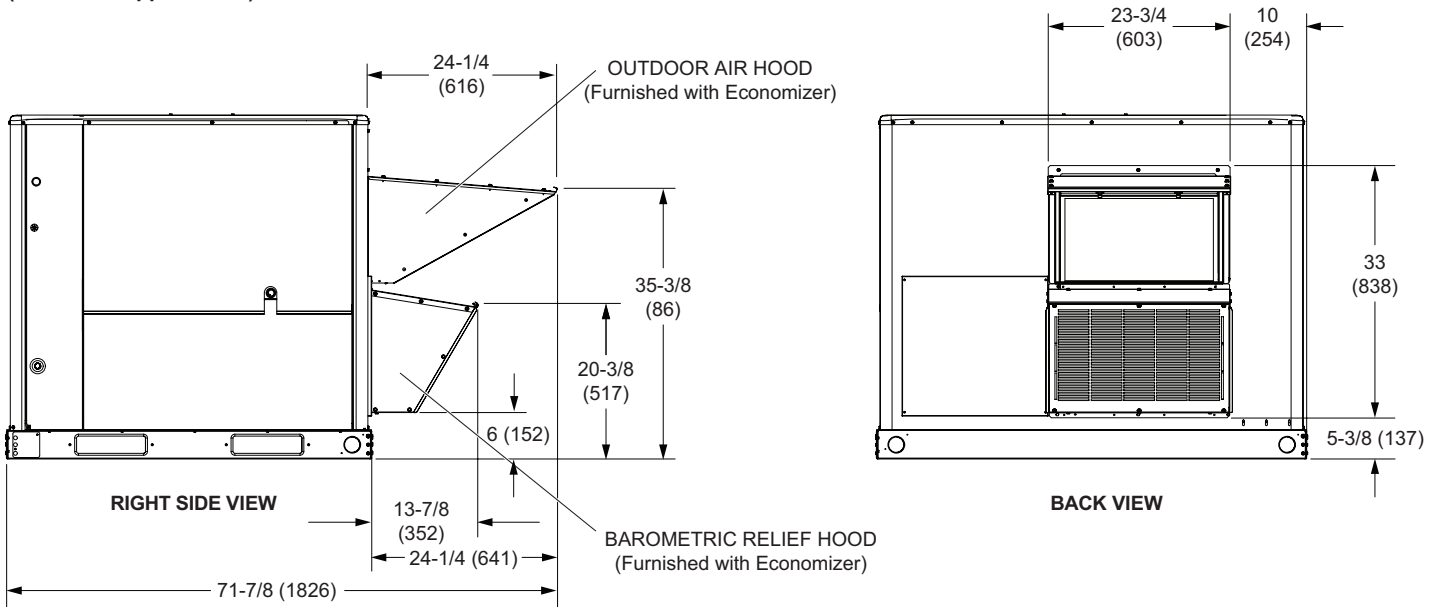


RIGHT SIDE VIEW

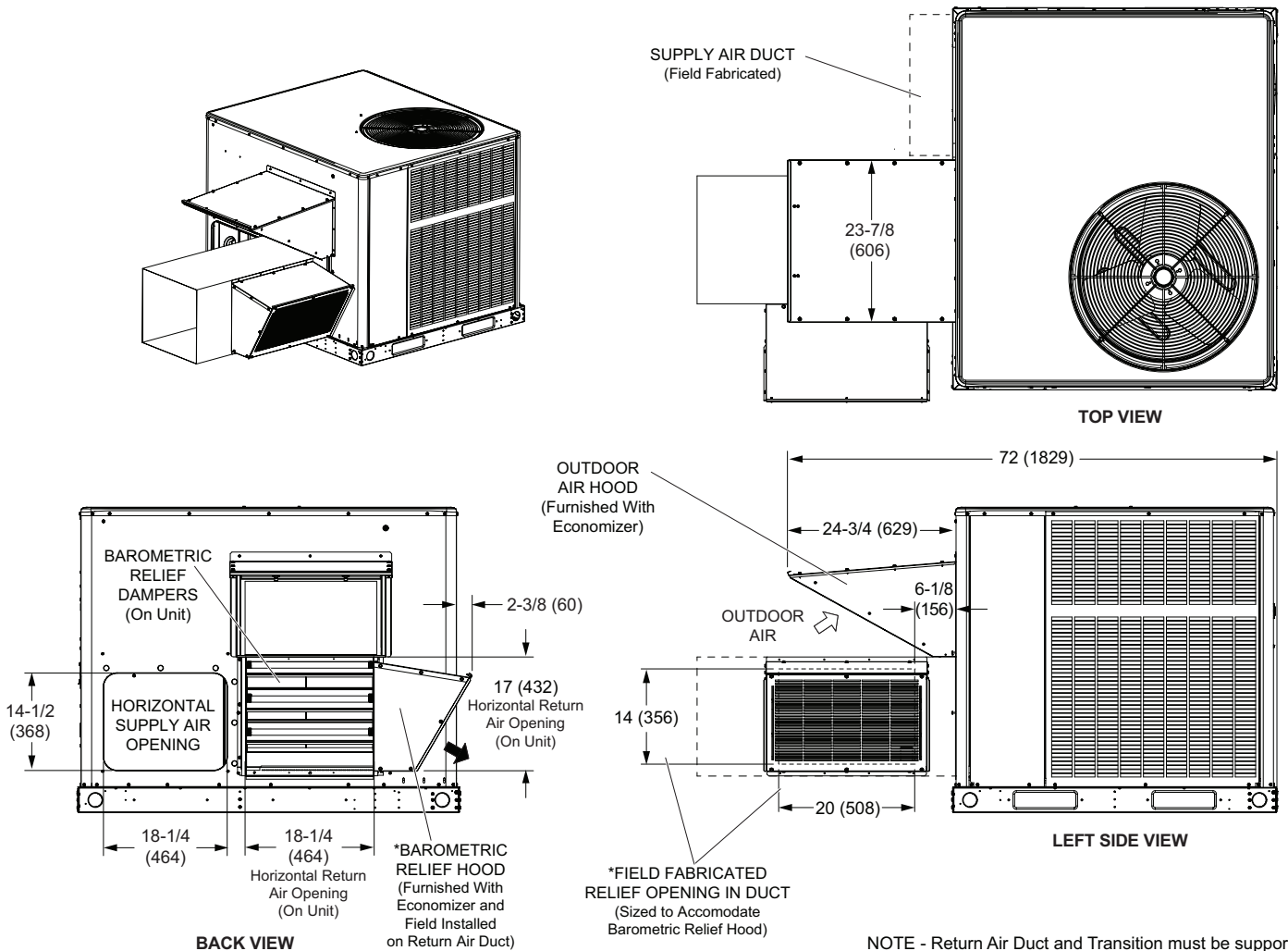


BACK VIEW

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



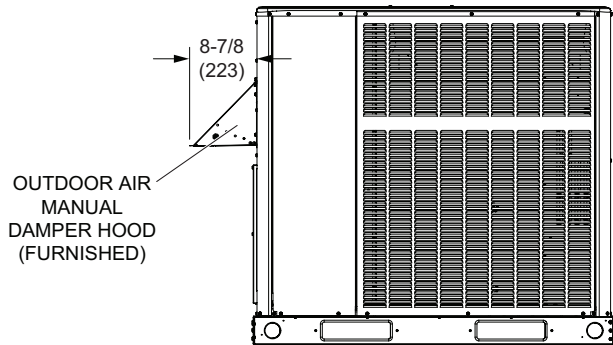
**OUTDOOR AIR HOOD DETAIL FOR OPTIONAL ECONOMIZER WITH BAROMETRIC RELIEF DAMPERS
(Horizontal Applications)**



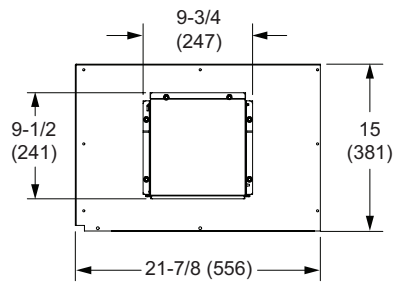
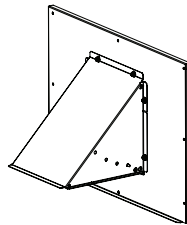
NOTE - Return Air Duct and Transition must be supported.

OUTDOOR AIR HOOD DETAIL FOR OPTIONAL OUTDOOR AIR DAMPERS

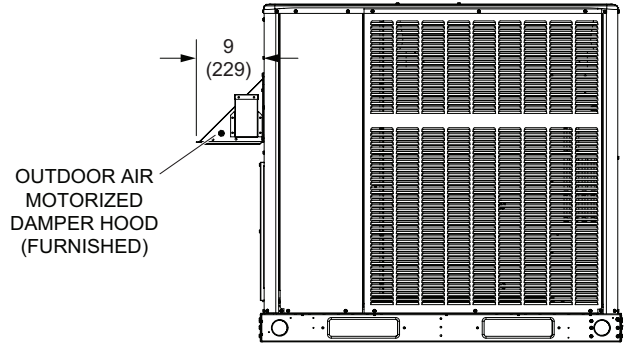
MANUAL OUTDOOR AIR DAMPERS



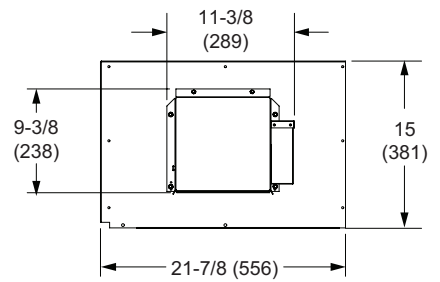
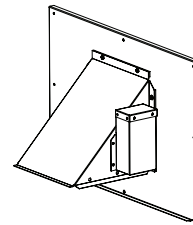
LEFT SIDE VIEW



MOTORIZED OUTDOOR AIR DAMPERS

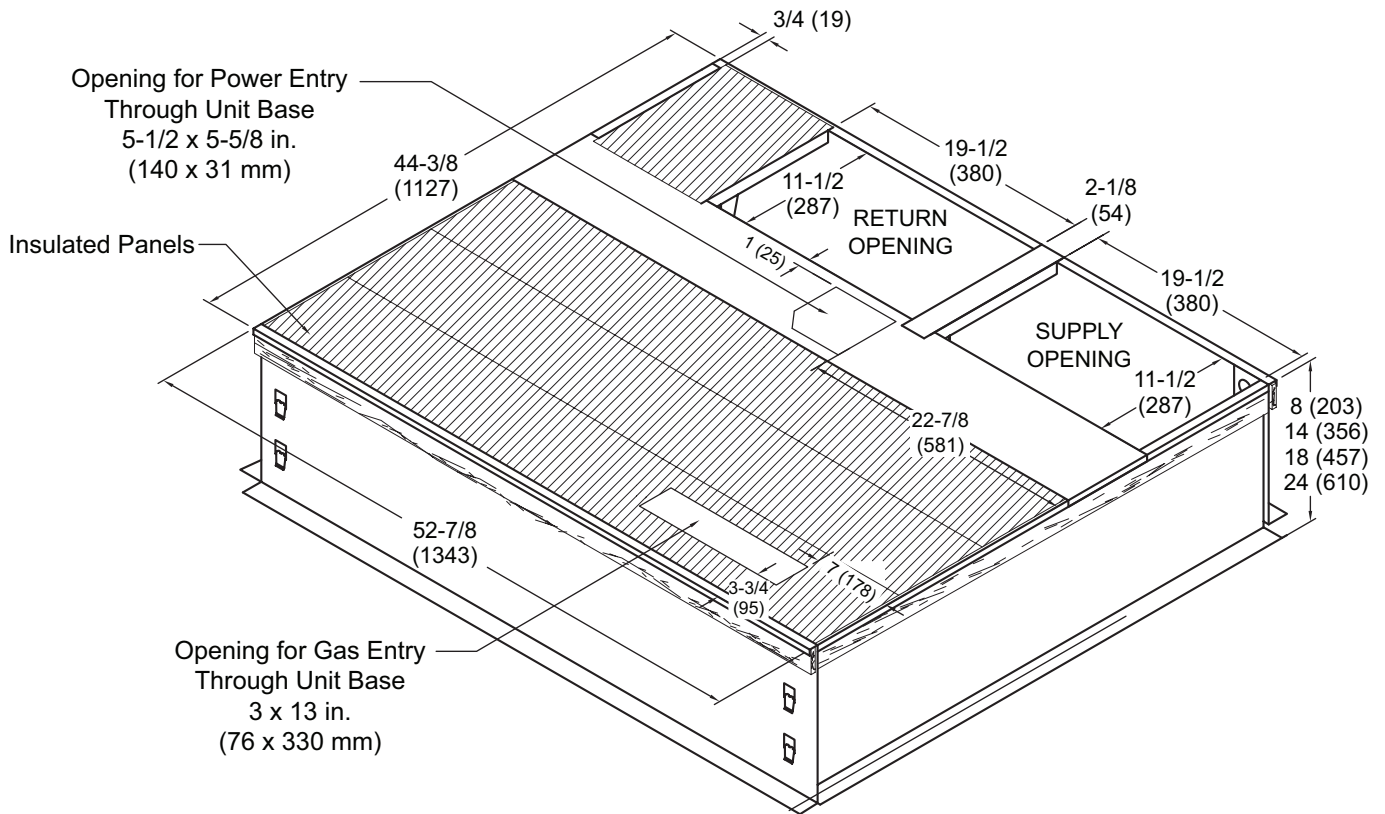


LEFT SIDE VIEW



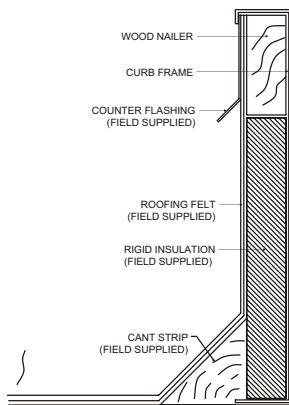
NOTE - Outdoor Air Hood and Panel replaces existing panel on unit.

CLIP CURB

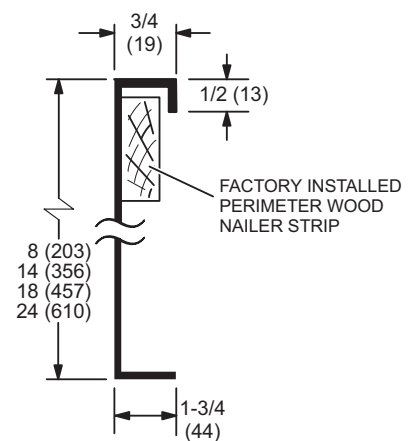


NOTE - Roof deck may be omitted within confines of curb.

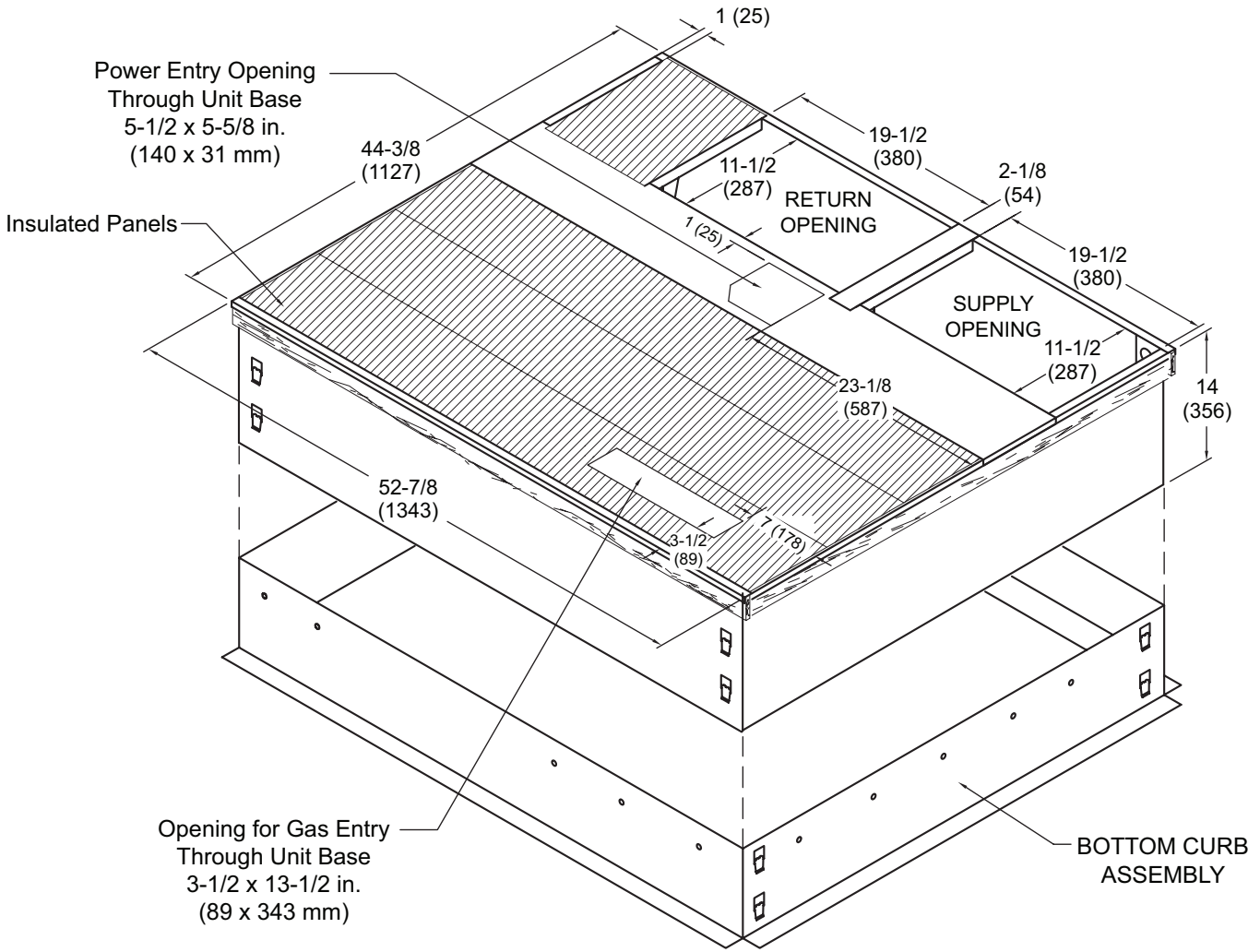
TYPICAL FLASHING DETAIL FOR ROOF CURB



DETAIL ROOF CURB

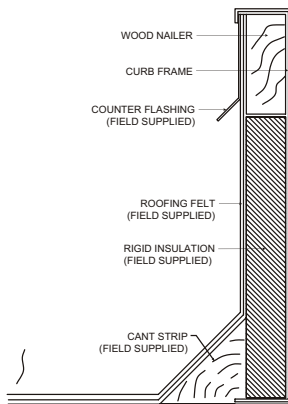


ADJUSTABLE PITCH ROOF CURB

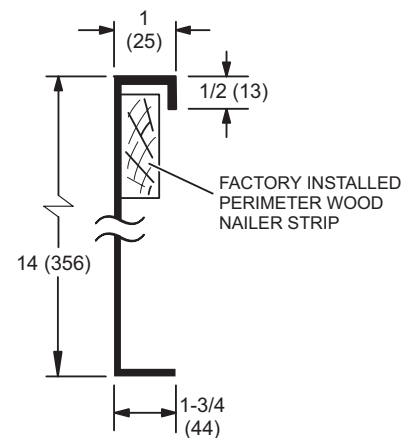


NOTE - Roof deck may be omitted within confines of curb.

TYPICAL FLASHING DETAIL FOR ROOF CURB



DETAIL ROOF CURB





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