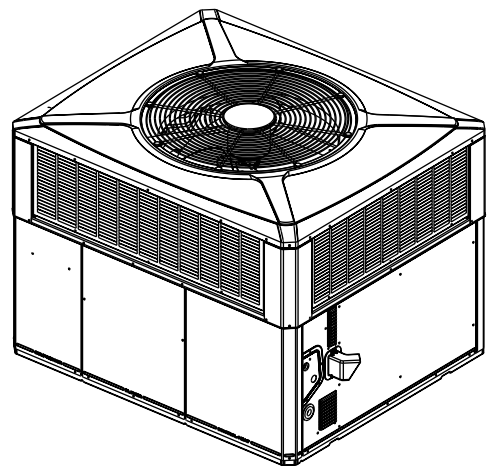


# Submittal

## Single Packaged Dual Fuel 15 SEER2 Convertible

4DCZ5036E1070A



**Note:** "Graphics in this document are for representation only. Actual model may differ in appearance."

**Note:** "Unit specific Service Facts available online."

# SAFETY SECTION

*Important: This document contains a wiring diagram, a parts list, and service information. This is customer property and is to remain with this unit. Please return to service information pack upon completion of work.*

## **⚠ WARNING**

### **HAZARDOUS VOLTAGE!**

Failure to follow this Warning could result in property damage, severe personal injury, or death.

Disconnect all electric power, including remote disconnects before servicing. Follow proper lockout/tagout procedures to ensure the power cannot be inadvertently energized.

## **⚠ WARNING**

### **SAFETY AND ELECTRICAL HAZARD!**

Failure to follow this Warning could result in property damage, severe personal injury, or death.

These servicing instructions are for use by qualified personnel only. To reduce the risk of electrical shock, do not perform any servicing other than that contained in these operating instructions unless you are qualified to do so.

## **⚠ CAUTION**

### **GROUNDING REQUIRED!**

Failure to inspect or use proper service tools may result in equipment damage or personal injury.

Reconnect all grounding devices. All parts of this product that are capable of conducting electrical current are grounded. If grounding wires, screws, straps, clips, nuts, or washers used to complete a path to ground are removed for service, they must be returned to their original position and properly fastened.

## **⚠ WARNING**

### **UNIT CONTAINS R-410A REFRIGERANT!**

Failure to use proper service tools may result in equipment damage or personal injury.

R-410A operating pressure exceeds the limit of R-22. Proper service equipment is required. Service using only R-410A Refrigerant and approved POE compressor oil.

## **⚠ WARNING**

### **SAFETY HAZARD!**

Operating the unit without the access panels properly installed may result in severe personal injury or death.

Do not operate the unit without the evaporator fan access panel or evaporator coil access panel in place.

## **⚠ WARNING**

### **WARNING!**

This product can expose you to chemicals including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

*Important: Wear appropriate gloves, arm sleeve protectors and eye protection when servicing or maintaining this equipment.*

*Important: Air filters and media wheels or plates shall meet the test requirements in UL 900.*

# Product Specifications

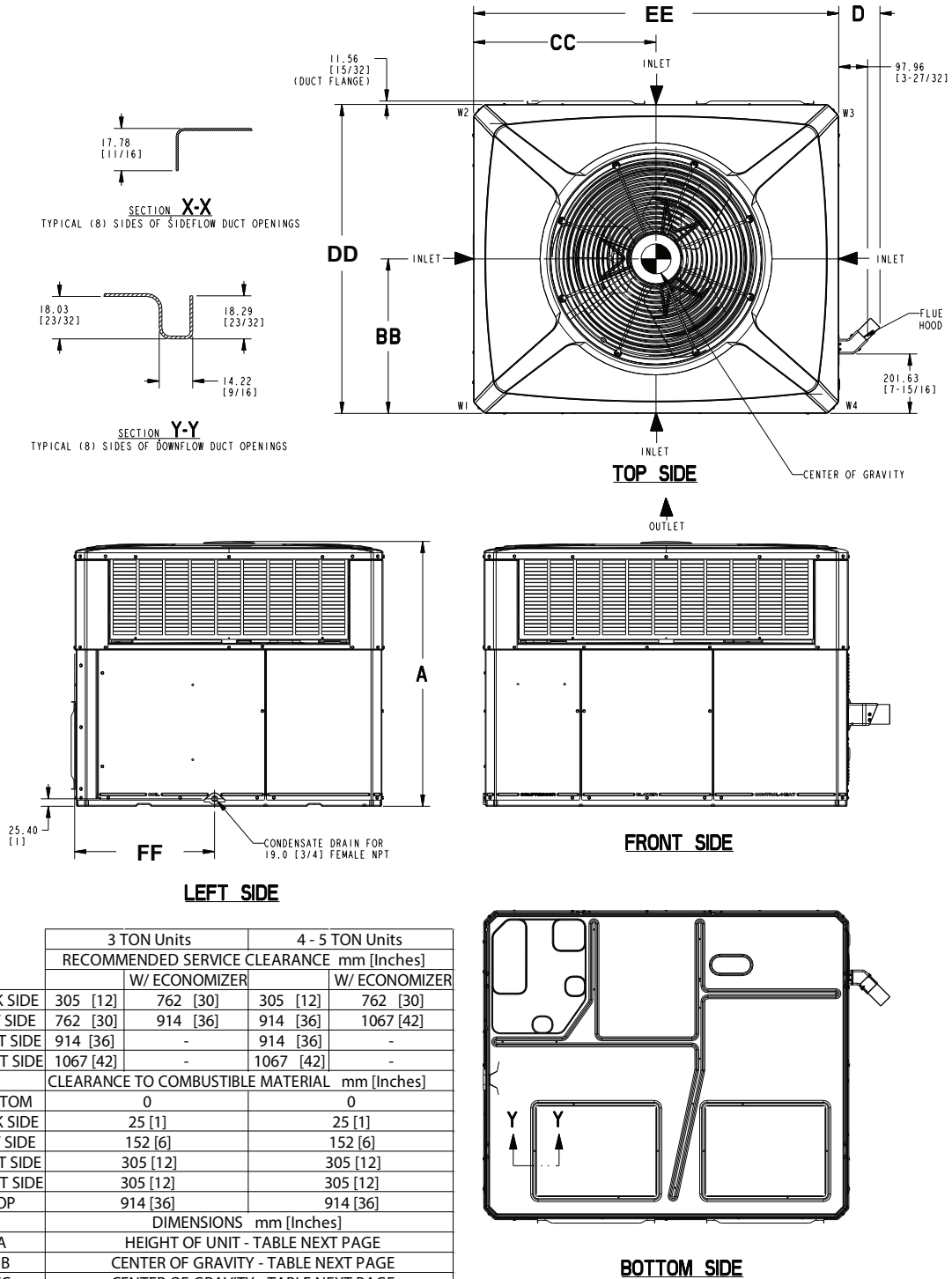
MODEL	4DCZ5036E1070A
<b>RATED Volts/PH/Hz</b>	208-230 / 1 / 60
<b>Performance Cooling BTUH<sup>(a)</sup></b>	
BTUH (High)	35200
Indoor Airflow (CFM)	1110
Power Input (KW)	3.03
BTUH (Low)	28200
Indoor Airflow (CFM)	830
Power Input (KW)	1.71
EER2 / SEER2	11 / 15
Sound Power Rating [dB(A)] <sup>(b)</sup>	70
<b>HP Heating Performance</b>	
(High Temp.) BTUH/COP (High)	31000 / 3.47
Power Input (KW)	2.75
(Low Temp.) BTUH/COP (High)	19400 / 2.16
Power Input (KW)	2.64
(High Temp.) BTUH/COP (Low)	22400 / 3.26
Power Input (KW)	2.02
(Low Temp.) BTUH/COP (Low)	11200 / 1.57
Power Input (KW)	2.09
HSPF2 (BTUH/Watt-Hr) <sup>(c)</sup>	6.7
<b>Gas Heating Performance<sup>(d)</sup></b>	
Input BTUH - 1st Stage (Nat. Gas)	56000
Input BTUH - 2nd Stage (Nat. Gas)	70000
AFUE	81
Temp. Rise-Min/Max (°F)	30 / 60
Orifice Qty / Drill Size (Nat. Gas) <sup>(e)</sup>	2 / #33
<b>POWER CONN. — V/Ph/Hz</b>	208-230/1/60
Min. Brch. Cir. Ampacity <sup>(f)</sup>	24.3
Fuse Size — Max. (amps)	35 / 35
<b>COMPRESSOR</b>	2 STAGE SCROLL
VOLTS/PH/HZ	208-230/1/60
R.L. Amps — L.R. Amps	15.3 / 83
<b>OUTDOOR COIL — TYPE</b>	SPINE FIN
Rows/F.P.I	2 / 24
Face Area (sq. ft.)	15.49
Tube Size (in.)	3/8
<b>INDOOR COIL — TYPE</b>	PLATE FIN
Rows/F.P.I	4/15
Face Area (sq. ft.)	3.45
Tube Size (in.)	3/8

MODEL	4DCZ5036E1070A
Refrigerant Control	EXPANSION VALVE
Drain Conn. Size (in.)	3/4 FEMALE NPT
<b>OUTDOOR FAN — TYPE</b>	PROPELLER
DIA. (IN.)	23.4
DRIVE/NO. SPEEDS	DIRECT / 1
CFM @ 0.0 in. w.g. <sup>(g)</sup>	3000
Motor — HP/R.P.M	1/6 /830
Volts/Ph/Hz	208-230/1/60
F.L. Amps/L.R Amps	1 / 1.65
<b>INDOOR FAN — TYPE</b>	CENTRIFUGAL
Dia. x Width (in.)	10 x 10
Drive/No. Speeds	DIRECT / VARIABLE
CFM @ 0.0 in. w.g. <sup>(h)</sup>	SEE FAN PERFORMANCE TABLE
Motor — HP / R.P.M.	1/2 /VARIABLE
Volts/Ph/Hz	208-230/1/60
F.L. Amps	4.3 / 4.3
<b>COMBUSTION FAN — TYPE</b>	CENTRIFUGAL
Drive/No. Speeds	DIRECT / 2
Motor — HP / R.P.M.	1/20 / 3350 /2600
Volts/Ph/Hz	208-230/1/60
FLA	0.34
<b>FILTER / FURNISHED</b>	NO
Type Recommended	THROWAWAY
Recmd. Face Area (sq. ft)	4.0
<b>REFRIGERANT / Charge (lbs)</b>	R-410A / 7.8
Subcooling	8°
<b>GAS PIPE SIZE (in.)</b>	1/2
<b>DIMENSIONS</b>	H X W X L
Crated (in.)	47.86 / 44.5 / 52.03
<b>WEIGHT / Shipping / Net (lbs.)</b>	488 / 392

- (a) Certified in accordance with the Unitary Air-Conditioner Equipment certification program, which is based on AHRI Standard 210/240. Noise calculated in accordance with AHRI Standard 270.
- (b) Sound Power values are not adjusted for AHRI 270-95 tonal corrections.
- (c) Filters must be installed in return air stream. Square footages listed are based on 300 f.p.m. face velocity. If permanent filters are used size per manufacturer's recommendation with a clean resistance of 0.05" W.C.
- (d) All models are certified to UL 1995. Ratings shown are for elevations up to 2000 ft. For higher elevations reduce ratings at a rate of 4% per 1000 ft. elevation.
- (e) Convertible to LPG.
- (f) This value is approximate. For more precise value, see Unit Nameplate.
- (g) Standard Air - Dry Coil - Outdoor.
- (h) Based on U.S. Government Standard Tests.

# Outline Drawings

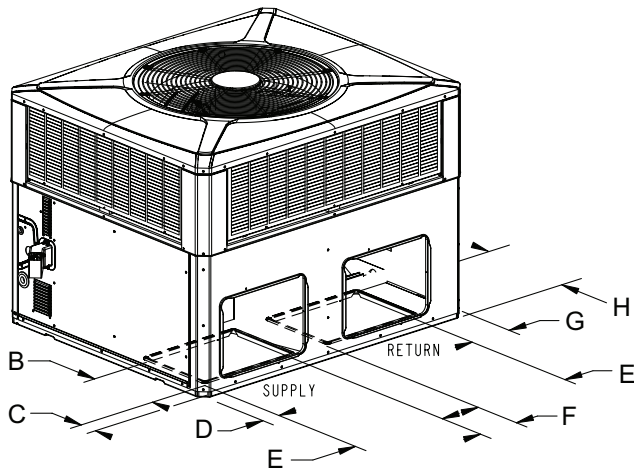
Figure 1. 2 - 5 Ton Models



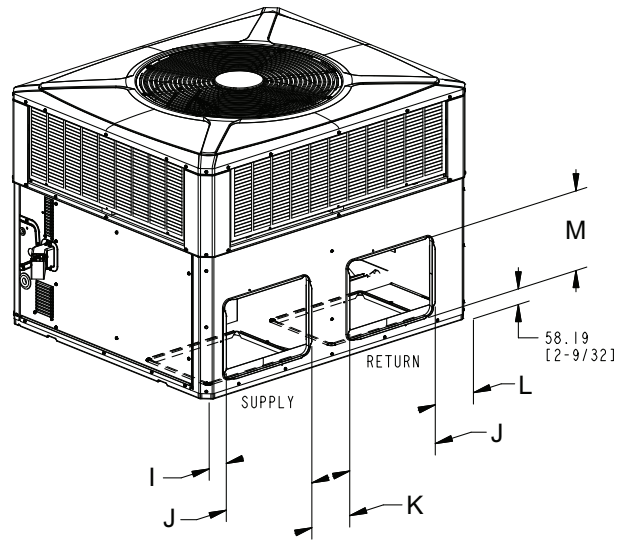
	3 TON Units		4 - 5 TON Units	
	RECOMMENDED SERVICE CLEARANCE mm [Inches]			
	W/ ECONOMIZER		W/ ECONOMIZER	
BACK SIDE	305 [12]	762 [30]	305 [12]	762 [30]
LEFT SIDE	762 [30]	914 [36]	914 [36]	1067 [42]
RIGHT SIDE	914 [36]	-	914 [36]	-
FRONT SIDE	1067 [42]	-	1067 [42]	-
CLEARANCE TO COMBUSTIBLE MATERIAL mm [Inches]				
BOTTOM	0		0	
BACK SIDE	25 [1]		25 [1]	
LEFT SIDE	152 [6]		152 [6]	
RIGHT SIDE	305 [12]		305 [12]	
FRONT SIDE	305 [12]		305 [12]	
TOP	914 [36]		914 [36]	
DIMENSIONS mm [Inches]				
A	HEIGHT OF UNIT - TABLE NEXT PAGE			
BB	CENTER OF GRAVITY - TABLE NEXT PAGE			
CC	CENTER OF GRAVITY - TABLE NEXT PAGE			
D	117.86 [4-5/8]		135.39 [5-11/32]	
DD -Depth	1094.99 [43-1/18]		1169.92 [46-1/16]	
EE -Width	1286.26 [50-5/8]		1531.87 [60-5/16]	
FF	499.49 [19-21/32]		575.06 [22-5/8]	

Note: The view labeled "Bottom side" represents the base as viewed looking up from underneath the unit.

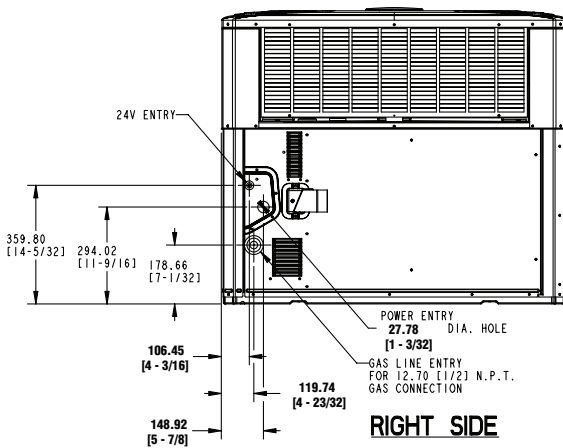
Figure 2. 2 - 5 Ton Models



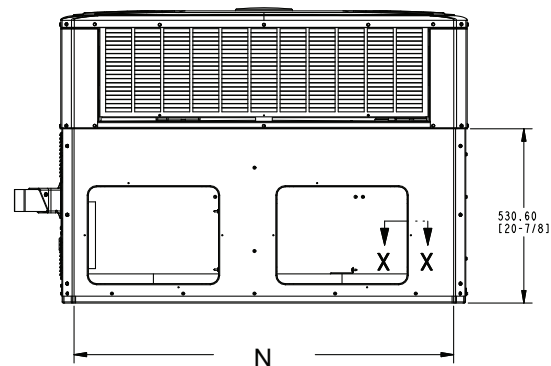
**BOTTOM DUCT OPENINGS**



**BACK DUCT OPENINGS**



**RIGHT SIDE**



**BACK SIDE**

	PHYSICAL DIMENSIONS mm [in]													
	A -Height	B	C	D	E	F	G	H	I	J	K	L	M	N
4DCZ5024F	949.33 [37 - 3/8]	304.80 [12.0]	84.46 [3.32]	82.16 [3.23]	406.40 [16.0]	167.89 [6.61]	180.20 [7.1]	304.80 [12.0]	86.25 [3.40]	398.22 [15.68]	176.07 [6.93]	184.29 [7.26]	296.62 [11.68]	1108.75 [43.50]
4DCZ5036E														
4DCZ5048E	1050.93 [41 - 3/8]	457.20 [18.0]	85.60 [3.37]	84.12 [3.31]	381.00 [15.0]	244.09 [9.61]	327.45 [12.89]	381.00 [15.0]	88.21 [3.47]	449.02 [17.68]	176.07 [6.93]	331.54 [13.05]	372.82 [14.68]	1355.64 [53.37]
4DCZ5060E														

	Corner Weights KG/LBS				SHIPPING WEIGHT KG/LBS	UNIT WEIGHT KG/LBS	Center Of Gravity mm[inch]	
	W1	W2	W3	W4			BB	CC
4DCZ5024F	62.1 [137]	37.2 [82]	30.4 [67]	50.3 [111]	221.6 [488]	178 [392]	386 [15.2]	558.8 [22]
4DCZ5036E	62.1 [137]	37.2 [82]	30.4 [67]	50.3 [111]	221.6 [488]	178 [392]	386 [15.2]	558.8 [22]
4DCZ5048E	81.6 [180]	46.3 [102]	42.2 [93]	73.5 [162]	301.6 [665]	243.6 [537]	419.1 [16.5]	706.1 [27.8]
4DCZ5060E	83.9 [185]	47.2 [104]	43.1 [95]	75.7 [169]	306.9 [676]	248.8 [548]	398.8 [15.71]	711.2 [28]

# Indoor Fan Performance

**Table 1. Indoor Fan Performance**

4DCZ5036*1 (070)		Horizontal Airflow [Cooling Down Airflow]										
Motor Speed		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
350 CFM/ Ton Setting	Low	-	741 [722]	743 [745]	744 [747]	744 [744]	743 [742]	742 [743]	740 [744]	737 [736]	-	-
	High	-	1059 [1032]	1062 [1064]	1063 [1066]	1063 [1063]	1062 [1060]	1059 [1062]	1057 [1063]	1053 [1052]	-	-
400 CFM/ Ton Setting	Low	-	825 [830]	837 [841]	843 [842]	844 [840]	844 [839]	842 [836]	839 [836]	836 [828]	-	-
	High	-	1179 [1185]	1196 [1201]	1204 [1203]	1206 [1201]	1205 [1196]	1203 [1197]	1199 [1194]	1194 [1184]	-	-
450 CFM/ Ton Setting	Low	-	975 [976]	964 [965]	959 [964]	957 [963]	953 [956]	949 [946]	945 [941]	945 [949]	-	-
	High	-	1394 [1397]	1377 [1376]	1371 [1377]	1367 [1376]	1362 [1366]	1355 [1354]	1350 [1344]	1350 [1356]	-	-

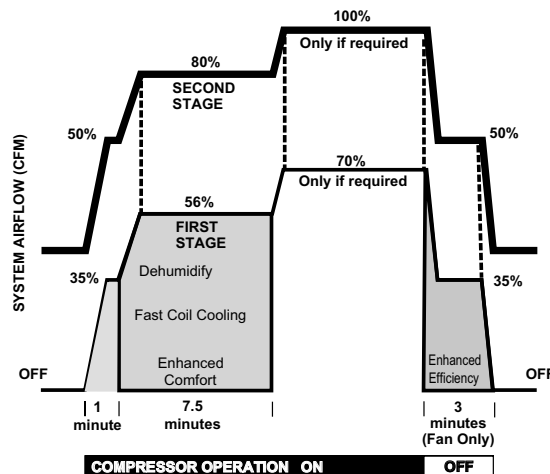
**Table 2. Auxiliary Heating Airflow, Horizontal or Downflow from 0.2 to 0.6" wg**

Switch Settings		Selection	Nominal Airflow	
			4DCZ5036	
			Low Stage	High Stage
7-OFF	8-OFF	A	725	1000
7-ON	8-OFF	B	775	1075
7-OFF	8-ON	C	850	1150
7-ON	8-ON	D	925	1250

Cooling Fan - Delay Options			
Switch Settings		Delay	Nominal Airflow
5 - OFF	6 - OFF	NONE	SAME
5 - ON	6 - OFF	45 SECONDS	100%(a)
5 - OFF	6 - ON	1.5 MINUTES	50%
5 - ON	6 - ON	(b)	50 -100%

(a) This setting is equivalent to the BAY24X045 relay benefit.

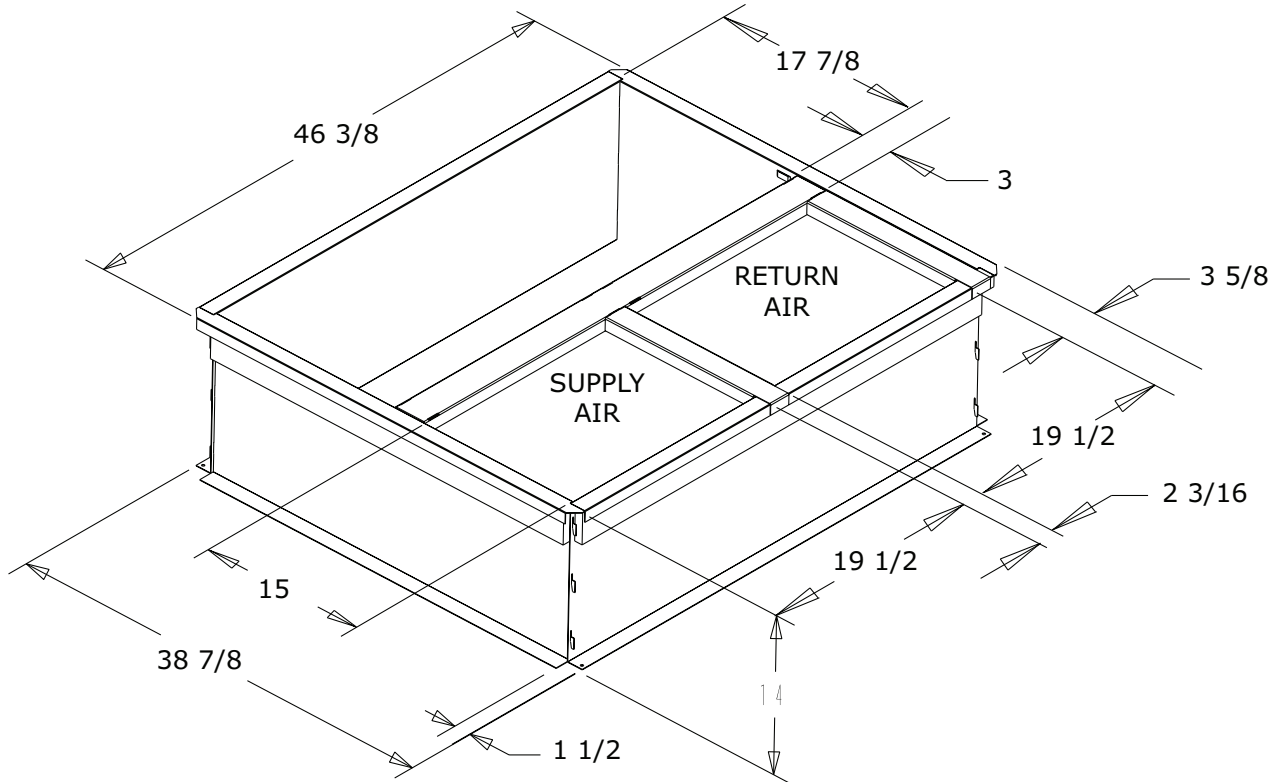
(b) This ENHANCED MODE selection provides a ramping up and ramping down of the blower speed to provide improved comfort, quietness, and potential energy savings. The graph below show the ramping process.



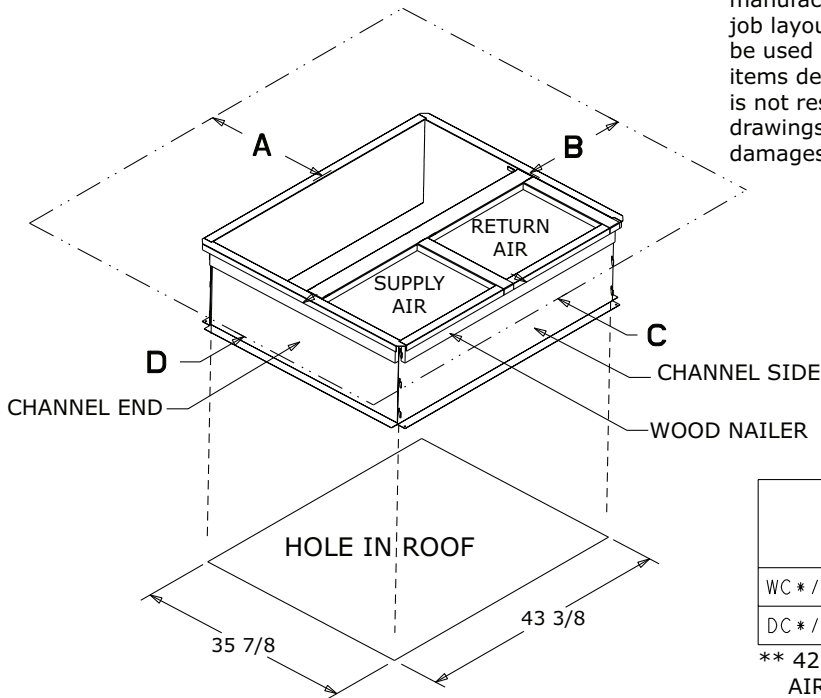
# Full Perimeter Roof Mounting Curb

Figure 3. 2.0 – 3.0 Ton Models

## BAYCURB050A Full Perimeter Roof Mounting Curb



The drawings on this page are prepared by the manufacturer in order to provide detail regarding job layout only. These drawings are not intended to be used as a basis to construct, build or modify the items depicted in the drawings. The manufacturer is not responsible for the unauthorized use of these drawings and expressly disclaims any liability for damages resulting from such unauthorized use.

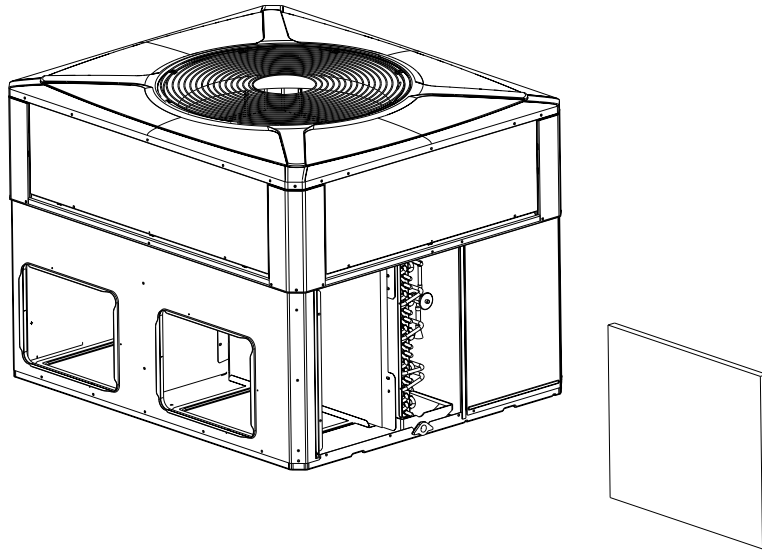


	SERVICE CLEARANCE DIMENSIONS			
	A	B	C	D
WC*/TC*	42.00	36.00	12.00**	24.00
DC*/YC*	42.00	36.00	12.00**	36.00

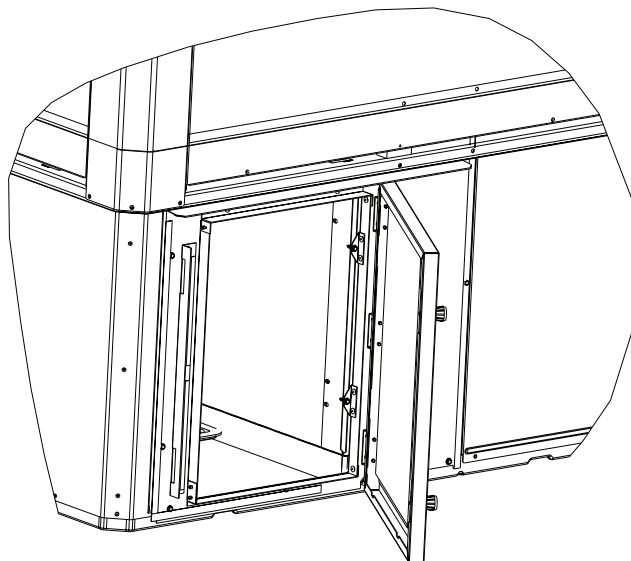
\*\* 42.00 WITH ECONOMIZER WITH 25% FRESH AIR ACCESSORY

# Optional Equipment – Filter Rack

**Figure 4. BAYFLTR101 Filter Rack (2.0 – 3.0 Ton Models)  
BAYFLTR201 (3.5 – 5.0 Ton Models)  
(Mounts in Filter/Coil Section)**



**Figure 5. BAYACCDOR1A Hinged Filter Access Door (2.0 – 3.0 Ton Models)  
BAYACCDOR2A (3.5 – 5.0 Ton Models)  
Replaces Filter/Coil Access Panel**



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# Optional Equipment – Economizer

**Table 3. BAYECON103, 104A Down Discharge Economizer and Rain Hood (Mounts Over Horizontal Return Air Opening)**

	<b>Economizer</b>	<b>Unit Application Models</b>
	BAYECON103A	2.0 – 3.0 Ton Models
	BAYECON104A	3.5 – 5.0 Ton Models

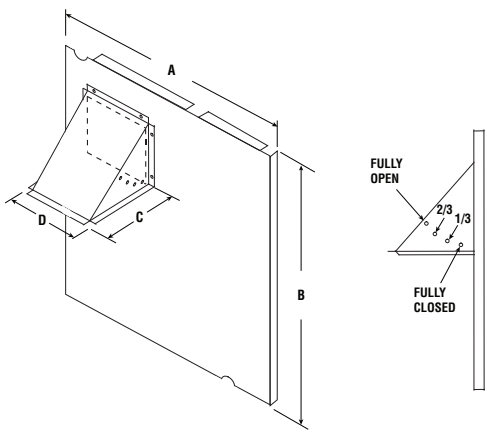
**Table 4. BAYCON203, 204A Horizontal Economizer and Rain Hood**

<b>Economizer</b>	<b>Models</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>
BAYECON203A	2.0 – 3.0 Ton	22"	20"	16-7/8"	15-11/16"	11-11/16"	15"
BAYECON204A	3.5 – 5.0 Ton	26"	22-21/32"	19"	17-11/16"	14-11/16"	21-3/8"

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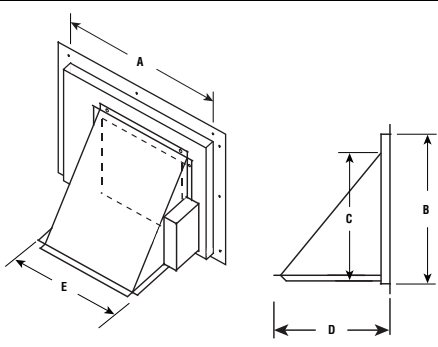
# Optional Equipment – Outside Air Damper

**Table 5. BAYOSAH001 and 002A Outside Air Damper  
(Replaces Filter/Coil Access Panel)**



Manual Fresh Air Model	Unit Application Models	A	B	C	D
BAYOSAH001A	2.0 – 3.0 Ton	22-7/16"	20-11/16"	12-3/8"	9-3/16"
BAYOSAH002A	3.5 – 5.0 Ton	25-3/16"	20-11/16"	12-3/8"	9-3/16"

**Table 6. BAYDMPR101 and 102A, 25% Motorized Outside Air Damper  
(Mounts Over Horizontal Return Air Opening)**



Manual Fresh Air Model	Unit Application Models	A	B	C	D	E
BAYDM-PR101A	2.0 – 3.0 Ton	15-13/16"	11-13/16"	10-1/4"	11-1/2"	12-1/4"
BAYDM-PR102A	3.5 – 5.0 Ton	18-3/16"	15-1/8"	10-1/4"	11-1/2"	12-1/4"

**Note:** The drawings on this page are prepared by the manufacturer in order to provide detail regarding job layout only. These drawings are not intended to be used as a basis to construct, build or modify the items depicted in the drawings. The manufacturer is not responsible for the unauthorized use of these drawings and expressly disclaims any liability for damages resulting from such unauthorized use.

# Mechanical Specifications

## General

All units shall be factory assembled, piped, internally wired and fully charged with refrigerant. All units shall be designed to operate at outdoor ambient temperatures as high as 115°F. Cooling capacities shall be rated in accordance with A.H.R.I. standards. The unit design is certified to UL Standard 1995 and ANSI Z21.47/CSA 2.3, specifically for outdoor applications using natural gas or propane. All units shall be designed for outdoor rooftop or ground level installation. Unit casing is constructed of heavy gauge, galvanized steel and painted with a weather-resistant powder paint.

**Shipped for horizontal application, convertible to downflow.**

**Casings** -All panels shall be heavy gauge steel, gasketed and insulated. Foil-faced insulation shall be in the heat exchanger section. Foil-faced insulation shall be in the evaporator section. Base pan shall be heavy gauge steel. **WEATHERGUARD™** exterior corrosion resistant screws shall be used for added resistance to rust and corrosion.

**Controls** - Refrigeration cycle controls shall include condenser fan, evaporator fan and compressor contactors. Compressors shall be equipped with a combination internal winding thermostat/current overload. Internal high pressure relief shall also be provided.

## Refrigeration System

**Compressors** - The Climatuff® compressor features internal over temperature and pressure protector, total dipped hermetic motor. Other features include: centrifugal oil pump, and low vibration and noise.

**Evaporator Coil** -Internally enhanced 3/8-inch OD seamless copper tubing mechanically bonded to aluminum fins, factory pressure tested at 480 PSIG and leak tested at 250 to 300 PSIG. All units have TXV to control refrigeration flow.

**Condenser Coil** - The **Spine Fin™** condenser coil shall be continuously wrapped, corrosion resistant all aluminum with minimum brazed joints. This coil is 3/8 inch OD seamless aluminum tubing glued to a continuous aluminum fin. Coils are lab tested to withstand 2,000 pounds of pressure per square inch. The outdoor coil provides low airflow resistance and efficient heat transfer. The coil is protected on all four sides by louvered panels.

**Indoor Air Fan** - Direct-drive, forward-curved, centrifugal wheel in a Composite **Vortica®** Blower housing. Motor shall have thermal overload protection. Permanently lubricated motor bearings. Motor/blower assembly isolated from unit with rubber mounts.

**Condenser Fan** -Direct-drive, draw through propeller type. Weather-proofed permanent split capacitor fan motor shall have built-in thermal overload and permanently lubricated motor bearings.

**Low Ambient** - Standard refrigerant system operation down to 55°F. Low ambient accessory required for operation to 0°F ambient condition.

**Gas-Fired Heating System** - Models shall provide completely assembled, wired and piped gas fired heating systems within unit. Design certified by UL, specifically for outdoor application. Threaded gas connection on the unit.

**Electronic Ignition System** - Main burner is lit each time thermostat calls for gas heat. Flame sensor proves flame and keeps the main burners on. Should a loss of flame occur, the main valve closes and the spark recurs within 0.8 second. When thermostat is satisfied, main burner is extinguished.

**Forced Combustion Blower** - Insures flame stability under varying wind conditions. Gives higher combustion efficiency and location flexibility.

**Heat Exchanger** - stainless steel tubes. Free floating design.

**Burners** - Stainless steel. Multi-port inshot.

## Accessories (U.S. Domestic Models)

**Roof Curb** - The roof curb shall be designed to mate with the unit and provide support and complete weather-tight installation when properly installed. Curb shall ship knocked down for field assembly, and include wood nailer strips.

**Modulating Economizer** - This accessory shall be field installed and be composed of the following items: 0-100% fresh air damper, damper drive motor fixed dry bulb enthalpy control, and low voltage polarized plug for electrical connections. Solid state enthalpy or differential enthalpy control is optional. Economizer operations shall be controlled by the preset position of the enthalpy control. A barometric relief damper shall be standard with the economizer and provide a pressure operated damper that shall be gravity closing and prohibit entrance of outside air on equipment "off" cycle.

**Manual Fresh Air Hood** - Manual outside air provides a fixed outside air quantity from 0 to 25 percent. Includes hood and birdscreen.

**Low Ambient Control** - Control allows cycling of compressor under low ambient cooling conditions. Required for cooling operation to 0°F.

## Propane Gas

**Conversion Kit** - For conversion from natural gas to LP gas.

## About Trane and American Standard Heating and Air Conditioning

Trane and American Standard create comfortable, energy efficient indoor environments for residential applications. For more information, please visit [www.trane.com](http://www.trane.com) or [www.americanstandardair.com](http://www.americanstandardair.com).

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The AHRI Certified mark indicates company participation in the AHRI Certification program. For verification of individual certified products, go to [ahridirectory.org](http://ahridirectory.org).

The manufacturer has a policy of continuous data improvement and it reserves the right to change design and specifications without notice. We are committed to using environmentally conscious print practices.

4DCZ5036E-SUB-1B-EN 29 Feb 2024

Supersedes 4DCZ5036E-SUB-1A-EN (September 2022)

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