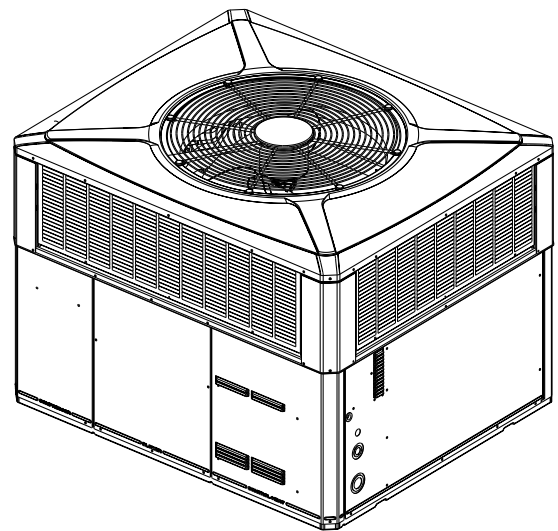


# Submittal

## Single Packaged Heat Pump 14 SEER Convertible

4WCC4024A1000A



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

# Product Specifications

<b>MODEL</b>	4WCC4024A1000A
RATED Volts/PH/Hz	208-230/1/60
Performance Cooling BTUH <sup>(a)</sup>	24600
Indoor Airflow (CFM)	758
Power Input (KW)	1.9
EER/SEER (BTU/Watt-Hr.) <sup>(b)</sup>	12.00 / 14.00
Sound Power Rating [dB(A)] <sup>(c)</sup>	66.4
<b>PERFORMANCE HEATING</b>	
(High Temp.) BTUH	22000
Power Input (KW)	1.8
(Low Temp.) BTUH	14300
Power Input (KW)	1.12
HSPF (BTUH/Watt-Hr)	8.0
<b>POWER CONN. — V/Ph/Hz</b>	208-230/1/60
Min. Brch. Cir. Ampacity <sup>(d)</sup>	19.4
Fuse Size — Max. (amps)	30
Fuse Size — Recmd. (amps)	30
<b>COMPRESSOR</b>	SCROLL
VOLTS/PH/HZ	208-230/1/60
R.L. Amps — L.R. Amps	12.8 / 58.3
<b>OUTDOOR COIL — TYPE</b>	SPINE FIN
Rows/F.P.I	2 / 24
Face Area (sq. ft.)	13.32
Tube Size (in.)	3/8
Refrigerant Control	EXPANSION VALVE
<b>INDOOR COIL — TYPE</b>	PLATE FIN
Rows/F.P.I	3 / 15
Face Area (sq. ft.)	3.5
Tube Size (in.)	3/8
Refrigeration Control	EXPANSION VALVE
Drain Conn. Size (in.)	3/4 FEMALE NPT
<b>OUTDOOR FAN — TYPE</b>	SWEPT

DIA. (IN.)	23.4
DRIVE/NO. SPEEDS	DIRECT / 3
CFM @ 0.0 in. w.g. <sup>(e)</sup>	2550
Motor — HP/R.P.M	1/12 / 850
Volts/Ph/Hz	208-230/1/60
F.L. Amps/L.R Amps	.54 / .82
<b>INDOOR FAN — TYPE</b>	CONSTANT TORQUE ECM
Dia. x Width (in.)	10.62 X 10.68
Drive/No. Speeds	DIRECT / 3
CFM @ 0.0 in. w.g. <sup>(f)</sup>	SEE FAN PERF TABLE
Motor — HP/R.P.M.	1/3 / 1050
Volts/Ph/Hz	208-230/1/60
F.L. Amps	2.8
<b>FILTER / FURNISHED</b>	NO
Type Recommended	THROWAWAY
Recmd. Face Area (sq. ft) <sup>(g)</sup>	2.7
<b>REFRIGERANT</b>	R-410
Charge (lbs.)	5.74
<b>CHARGING SPECIFICATIONS</b>	
Subcooling	16°
<b>DIMENSIONS</b>	H X D X W
Crated (in.)	46 X 45 X 52
<b>WEIGHT</b>	
Shipping (lbs.) / Net (lbs.)	402 / 328

<sup>(a)</sup> Rated in accordance with AHRI Standard 210/240.

<sup>(b)</sup> Rated in accordance with D.O.E. test procedure.

<sup>(c)</sup> Sound Power values are not adjusted for AHRI 270-95 tonal corrections.

<sup>(d)</sup> Calculated in accordance with currently prevailing Nat'l Electrical Code.

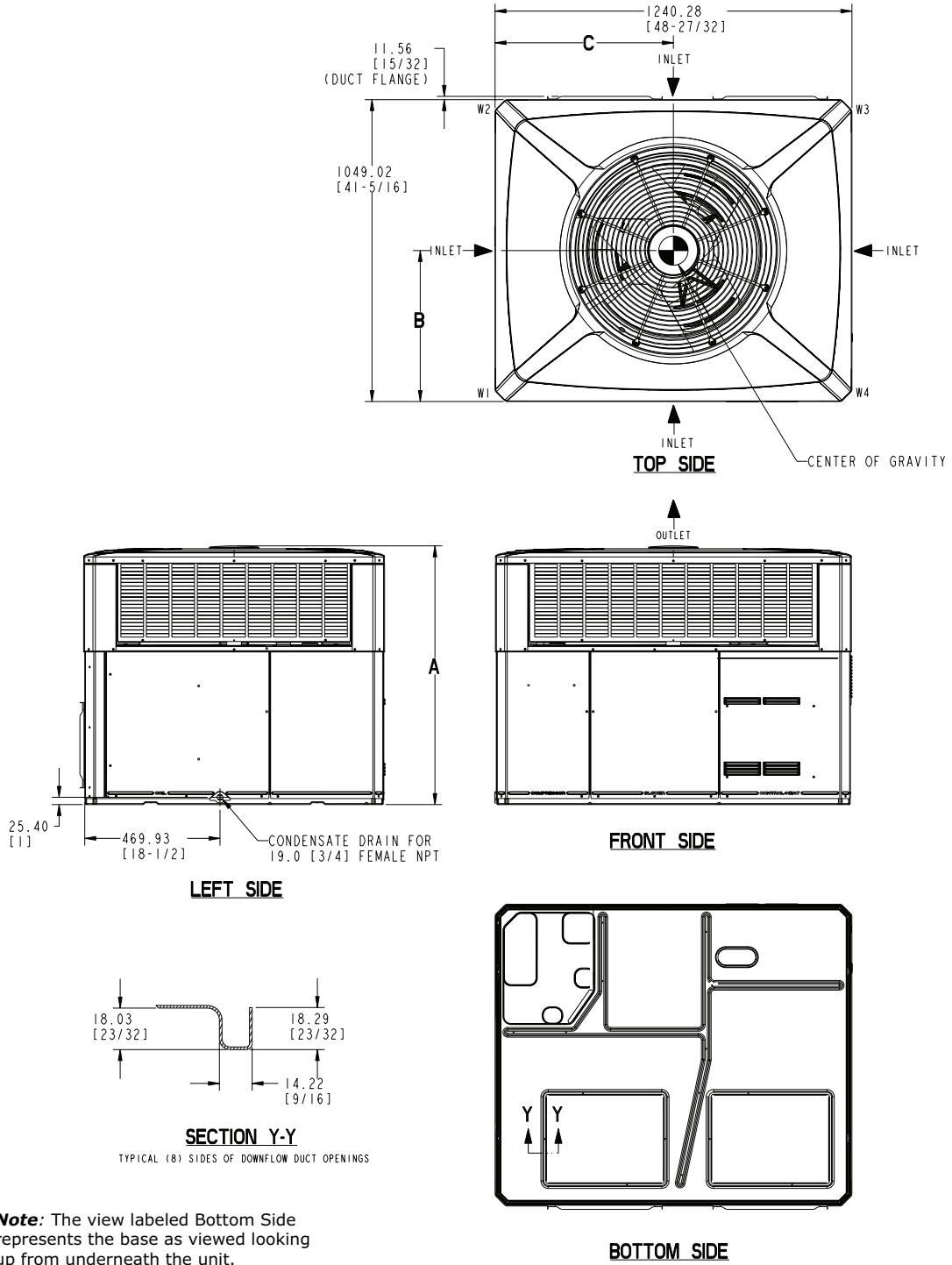
<sup>(e)</sup> Standard Air — Dry Coil — Outdoor.

<sup>(f)</sup> Standard Air — Dry Coil — Indoor

<sup>(g)</sup> 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.

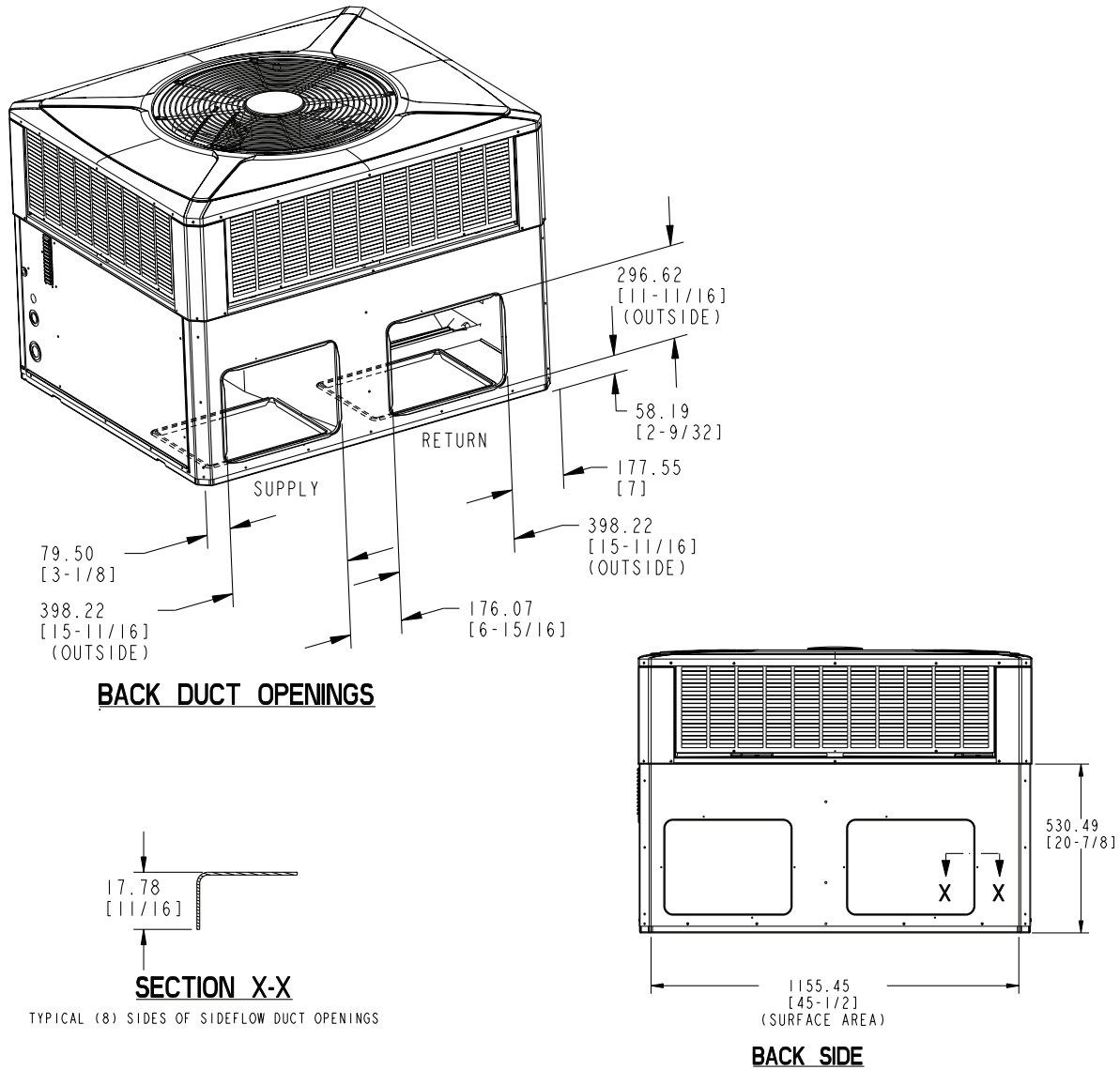
# Outline Drawings

Figure 1. 2 – 3 TON MODELS



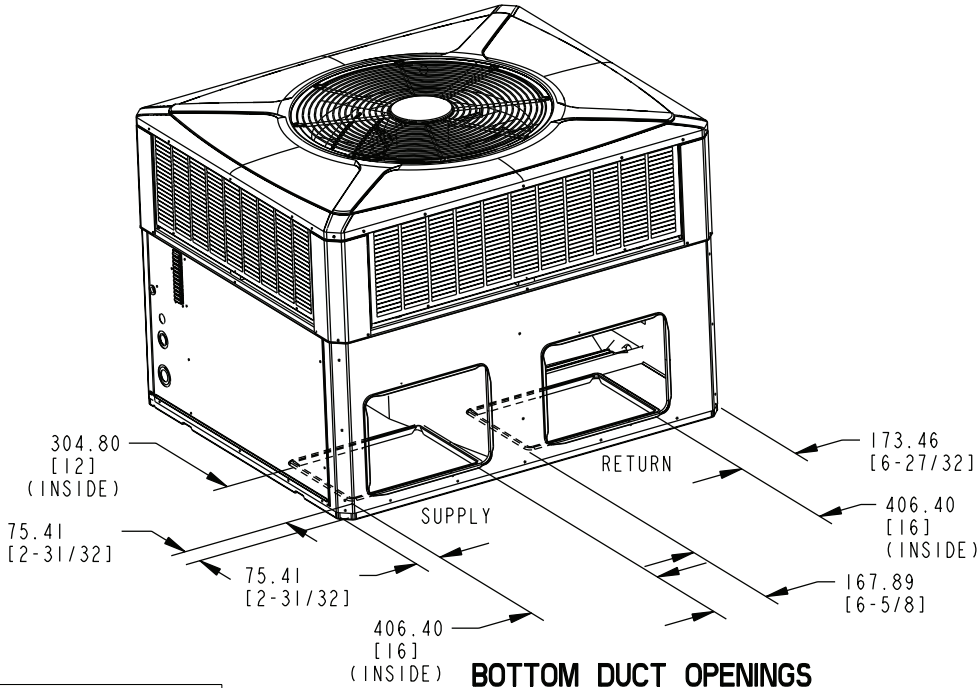
**Note:** The view labeled Bottom Side represents the base as viewed looking up from underneath the unit.

Figure 2. 2 – 3 TON MODELS



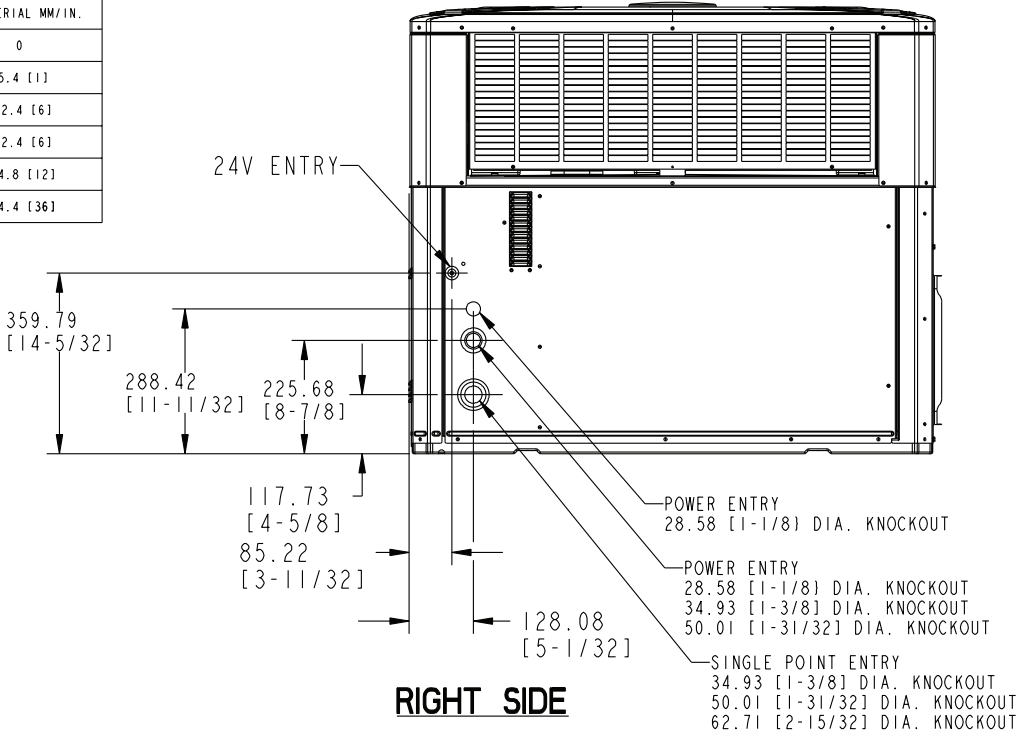
Model	Height MM/IN	APPROX. CORNER WEIGHT KG / LBS				SHIPPING WIGHT KG / LBS	TOTAL UNIT WEIGHT KG / LBS	CENTER OF GRAVITY MM/IN.		
	A	W1	W2	W3	W4			B	C	
4TCC4024	898.53 [35 -3/8]	58.3 [129]	36.8 [81]	26.1 [58]	41.0 [90]	196.1 (432)	162.4 (358)	479.8 [18.9]	527.8 [20.8]	
4TCC4030		61.3 [135]	38.7 [85]	27.5 [61]	43.1 [95]	204.8 (451)	171.1 (377)	406.5 [16.0]	594.1 [23.4]	
4TCC4036	949.33 [37-3/8]	61.7 [136]	38.9 [86]	27.7 [61]	43.7 [96]	205.7 (453)	172.0 (379)	414.3 [16.3]	697.6 [27.5]	
4WCC4024	898.53 [35-3/8]	52.9 [117]	33.3 [73]	24.1 [53]	38.3 [84]	182.3 (402)	148.6 (328)	430 [16.9]	565.3 [22.3]	
4WCC4030		949.33 [37-3/8]	55.3 [122]	50.3 [110]	16.6 [37]	39.2 [86]	195.0 (430)	161.3 (355)	413.5 [16.3]	581 [22.9]
4WCC4036			59.6 [131]		37.3 [82]	26.6 [59]	41.7 [92]	199.0 (439)	165.3 (364)	430 [17.0]

Figure 3. 2 – 3 TON MODELS



RECOMMENDED SERVICE CLEARANCE MM/IN.		
		WITH ECONOMIZER
BACK SIDE	304.8 [12]	762.0 [30]
LEFT SIDE	762.0 [30]	914.4 [36]
RIGHT SIDE	609.6 [24]	-
FRONT SIDE	1066.8 [42]	-

CLEARANCE TO COMBUSTIBLE MATERIAL MM/IN.	
BOTTOM	0
BACK SIDE	25.4 [1]
LEFT SIDE	152.4 [6]
RIGHT SIDE	152.4 [6]
FRONT SIDE	304.8 [12]
TOP	914.4 [36]



# Indoor Fan Performance (230v)

**Table 1. Horizontal Airflow**

4WCC4024A1		EXTERNAL STATIC PRESSURE (IN. WG)										
MOTOR SPEED		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
LOW	WATTS	63	70	77	83	90	95	-	-	-	-	-
	CFM	899	820	755	681	581	505	-	-	-	-	-
MEDIUM	WATTS	75	83	91	97	104	111	-	-	-	-	-
	CFM	959	886	818	756	673	589	-	-	-	-	-
HIGH	WATTS	-	-	119	127	134	142	149	155	-	-	-
	CFM	-	-	940	886	820	748	670	605	-	-	-

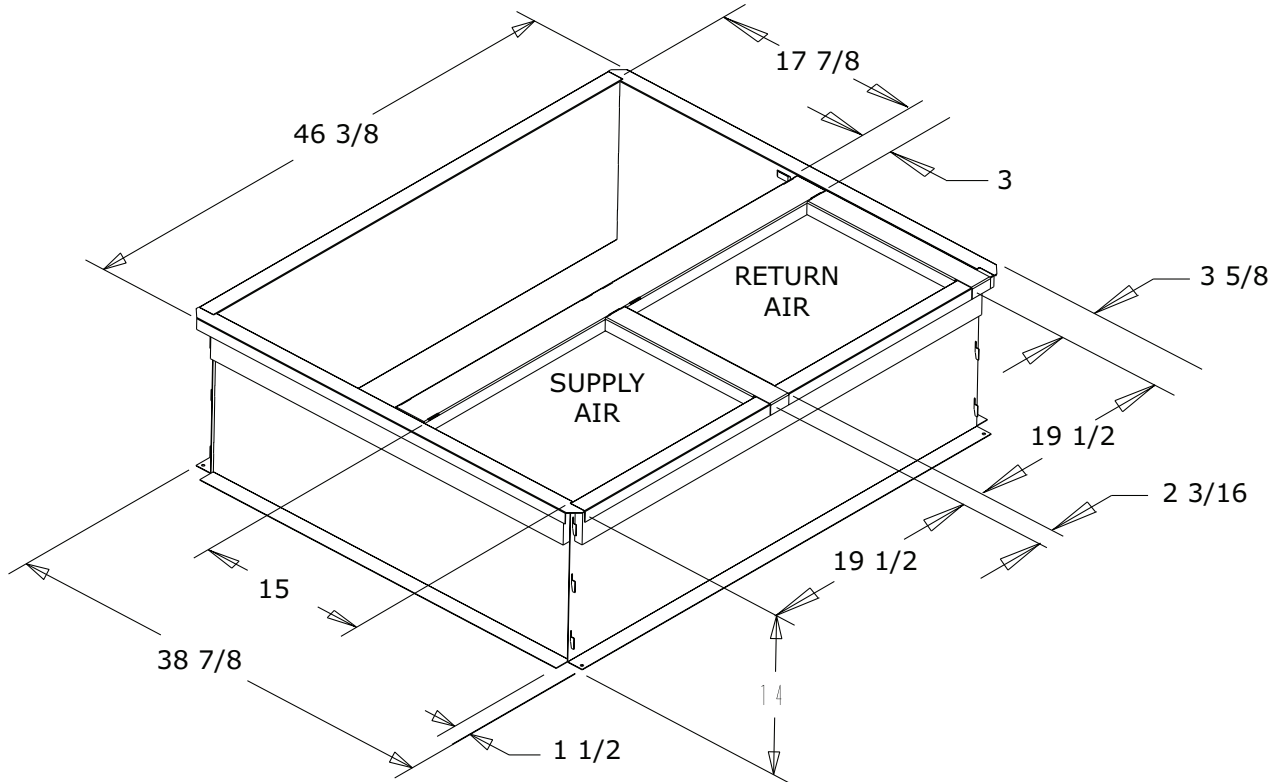
**Table 2. Down Airflow**

4WCC4024A1		EXTERNAL STATIC PRESSURE (IN. WG)										
MOTOR SPEED		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
COOLING — LOW	WATTS	63	71	77	83	90	95	-	-	-	-	-
	CFM	890	811	747	674	575	500	-	-	-	-	-
COOLING — MED	WATTS	76	84	91	98	105	112	-	-	-	-	-
	CFM	950	877	810	749	666	583	-	-	-	-	-
COOLING — HIGH	WATTS	-	-	119	127	135	143	150	156	-	-	-
	CFM	-	-	931	877	812	741	663	599	-	-	-

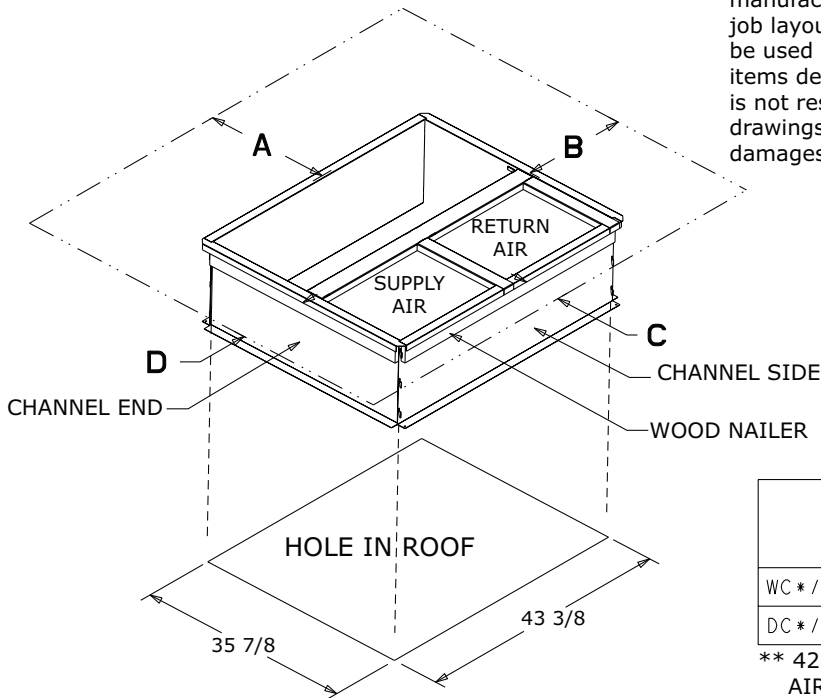
# Full Perimeter Roof Mounting Curb

Figure 4. 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

# Supplementary Electric Heater

**Table 3. BAYHTRV – Supplementary Electric Heaters**

UNIT MODEL	ELECTRIC HEATER MODEL	RATED VOLT-AGE	PHASE	AMPS	HEATER CAPACITY		NO. OF STAGES	KW/STAGE		MCA	MAX. FUSE OR HACR CKT BKR SIZE	CANADA ONLY MAX. CKT BKR SIZE
					KW	BTUH		1	2			
4024-4060	BAYHTRV105	208/240	1	18/21	3.76/5.0	12800/17100	1	3.76/5.0	—	23/26	25/30	25/30
4024-4060	BAYHTRV108	208/240	1	29/33	6.0/8.0	20500/27300	1	6.0/8.0	—	36/41	40/45	40/45
4024-4060	BAYHTRV110	208/240	1	36/42	7.5/10.0	25600/34100	1	7.5/10.0	—	45/52	45/60	45/60
4030-4060	BAYHTRV115	208/240	1	54/63	11.27/15.0	38500/51200	2	7.5/10.0	3.76/5.0	68/78	70/80	70/80
4048-4060	BAYHTRV120	208/240	1	72/83	15.0/20.0	51200/68300	2	7.5/10.0	7.5/10.0	90/104	90/110	90/110
4060	BAYHTRV125	208/240	1	90/104	18.78/25.0	64100/85300	2	11.26/15.0	7.5/10.0	113/130	125/150	125/150

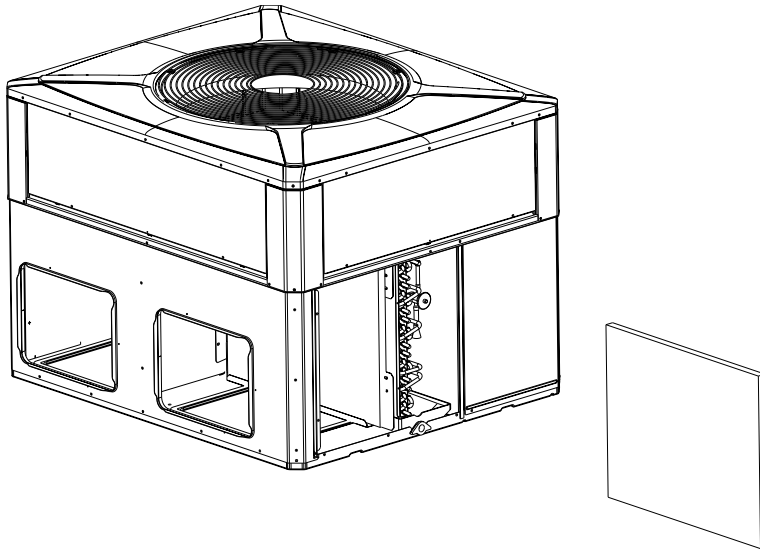
**Table 4. BAYSPEK – Single Power Entry Kit**

SINGLE CIRCUIT POWER AMPACITY AND OVER CURRENT PROTECTION				
UNIT MODEL	SINGLE POWER ENTRY KIT	HEATER MODEL	MIN CKT AMP	MAX OVER-CURRENT DEVICE
4WCC4024A	BAYSPEK60	BAYHTRV105	45	50
		BAYHTRV108	60	60
	BAYSPEK62	BAYHTRV110	71	80

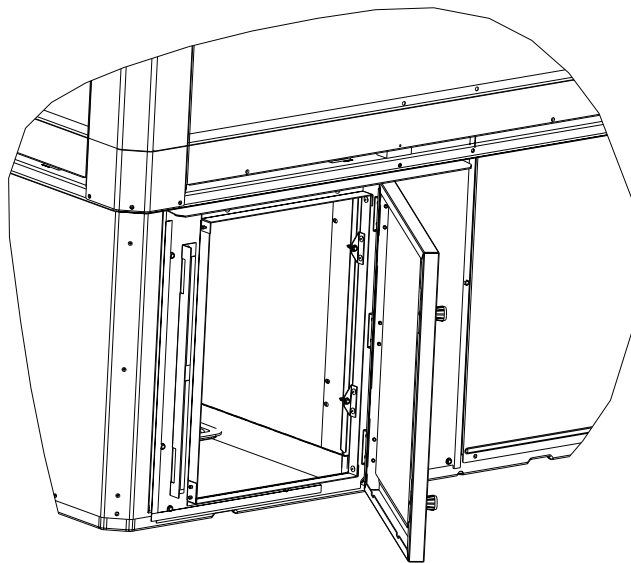


# Optional Equipment – Filter Rack

**Figure 5. BAYFLTR101 Filter Rack (2.0 – 3.0 Ton Models)  
BAYFLTR201 (3.5 – 5.0 Ton Models)  
(Mounts in Filter/Coil Section)**



**Figure 6. BAYACCDOR1A Hinged Filter Access Door (2.0 – 3.0 Ton Models)  
BAYACCDOR2A (3.5 – 5.0 Ton Models)  
Replaces Filter/Coil Access Panel**



**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.

## Optional Equipment – Economizer

**Table 5. BAYECON101,102A Down Discharge Economizer and Rain Hood (Mounts Over Horizontal Return Air Opening)**

	<b>Economizer</b>	<b>Unit Application Models</b>
	BAYECON101A	2.0 – 3.0 Ton Models
	BAYECON102A	3.5 – 5.0 Ton Models

**Table 6. BAYCON200, 201A 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>
BAYECON200A	2.0 – 3.0 Ton	22"	20"	16-7/8"	15-11/16"	11-11/16"	15"
BAYECON201A	3.5 – 5.0 Ton	26"	22-21/32"	19"	17-11/16"	14-11/16"	21-3/8"

**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.

## Optional Equipment – Outside Air Damper

Table 7. BAYOSAH001 and 002A

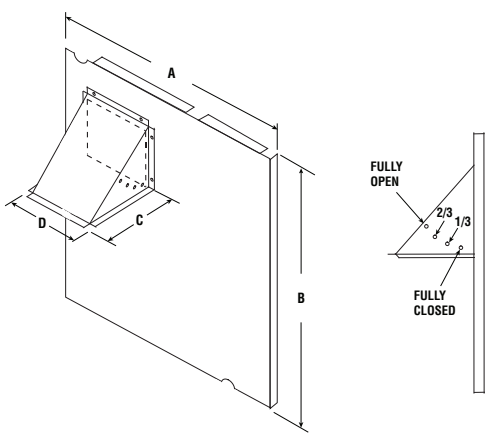
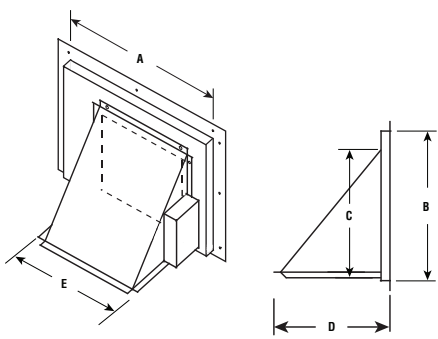
	Manual Fresh Air Model	Unit Application Models	A	B	C	D
	BAYOSAH001A	2.0 – 3.0 Ton	22-7/16"	20-11/16"	12-3/8"	9-3/16"
BAYOSAH002A	3.5 – 5.0 Ton	25-3/16"	20-11/16"	12-3/8"	9-3/16"	

Table 8. BAYDM-PR101 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

The units shall be horizontal airflow as shipped and convertible to downflow. All units shall be factory assembled, piped, internally wired and fully charged with refrigerant. Units shall be certified to UL Standard 1995. All units shall be factory run tested to check cooling operation, fan and blower rotation and control or TXV sequence. Units shall be designed to operate at ambient temperatures between 115°F and 55°F in cooling as manufactured. Cooling performance shall be rated in accordance with AHRI standards.

## Unit Casing

All components shall be mounted in a weather-resistant steel cabinet with an enamel finish. Access panels shall be provided for unit controls and indoor coil and fans. Indoor air section compartment shall be completely insulated with fireproof, permanent, odorless fiber material. Knockouts shall be provided for utility and control connections. Drain connections shall be provided to accommodate indoor water runoff.

## Compressor

The compressor shall be hermetically sealed, high efficiency scroll compressors. Internal overcurrent and over temperature protection, internal pressure relief shall be standard. Other features include centrifugal oil pump, low vibration and noise.

## Refrigeration System

All units shall have refrigerant control. Service pressure tap ports and a refrigerant line filter shall be standard.

**Evaporator Coil** Internally enhanced 3/8" OD seamless copper tubing mechanically bonded to aluminum fins, factory pressure and leak tested at 480 – 650 psig. All units have TXV to control refrigerant 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" 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

Constant Torque, forward-curved, centrifugal wheel in a Composite Vortica® Blower housing. Motor shall

have thermal overload protection and permanently lubricated motor bearings. Motor/blower assembly isolated from unit with rubber mounts.

## Outdoor Fan

One direct-drive, statically and dynamically balanced propeller fan shall be used in a draw-through vertical discharge configuration. Permanently lubricated weather proof motor shall have built-in thermal overload protection.

## System Controls

System controls include condenser fan, evaporator fan and compressor contactors.

## Accessories Roof Curb

The roof curb shall be designed to mate with the unit and provide support and complete weathertight installation when properly installed. Adhesive back polyurethane sealing strips shall be provided to ensure an airtight seal between supply and return openings of the curb and unit. The roof curb design allows field fabricated ductwork to be connected directly to the curb. Curb ships knocked down for field assembly, and includes factory installed wood nailer strips.

## Electric Heaters

Each heater assembly shall include power supply fusing if over 48 amps, automatic resetting limit switches and heat limiters for thermal protection. Heaters shall be provided with polarized plugs for quick connection to unit low voltage wiring. Electric heat modules shall be UL listed.

## Single Source Power Entry

This accessory when used with electric heat accessory shall allow single source power connection to unit and heater combination. Single source power entry kits shall have specific matching heater(s). Kit shall include high voltage terminal blocks, fuse blocks and fuses, cut-to-length interconnecting wiring, and junction box (if required) to provide power sources with fuse protection as required for both the unit and accessory heater. Kit components shall install within the heater cabinet in the heater access section. Single source branch power circuit shall be protected and wired in accordance with local codes.

### **Fully 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 pigtails 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. Economizer requires BAYRLAY004A relay kit to interface the economizer to the heat pump.

### **Manual Outside Air Dampers**

Rain hood and screen shall be field installed. Suitable for up to 25% outside air.

### **Start Kit**

Extra compressor starting capacity for single phase equipment.

### **Control Options**

#### **Standard Indoor Thermostats**

Two stage heating/cooling or one stage heating/cooling thermostats shall be available in either manual or automatic changeover.

#### **Programmable Electronic Night Setting Thermostat**

Programmable electronic thermostat shall provide heating setback and cooling setup with 7–day programming capability. 1H/1C or 2H/2C models available.

## 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).



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.

4WCC4024A-SUB-1F-EN 01 Jun 2020

Supersedes 4WCC4024A-SUB-1E-EN (December 2015)

©2020