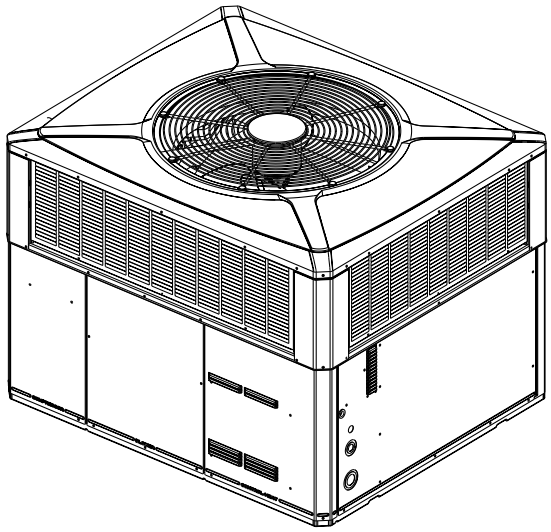
Submittal

Single Packaged Cooling/Electric Heat

A5PA3036A1000A



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

December 2024

A5PA3036A-SUB-1A-EN

Product Specification

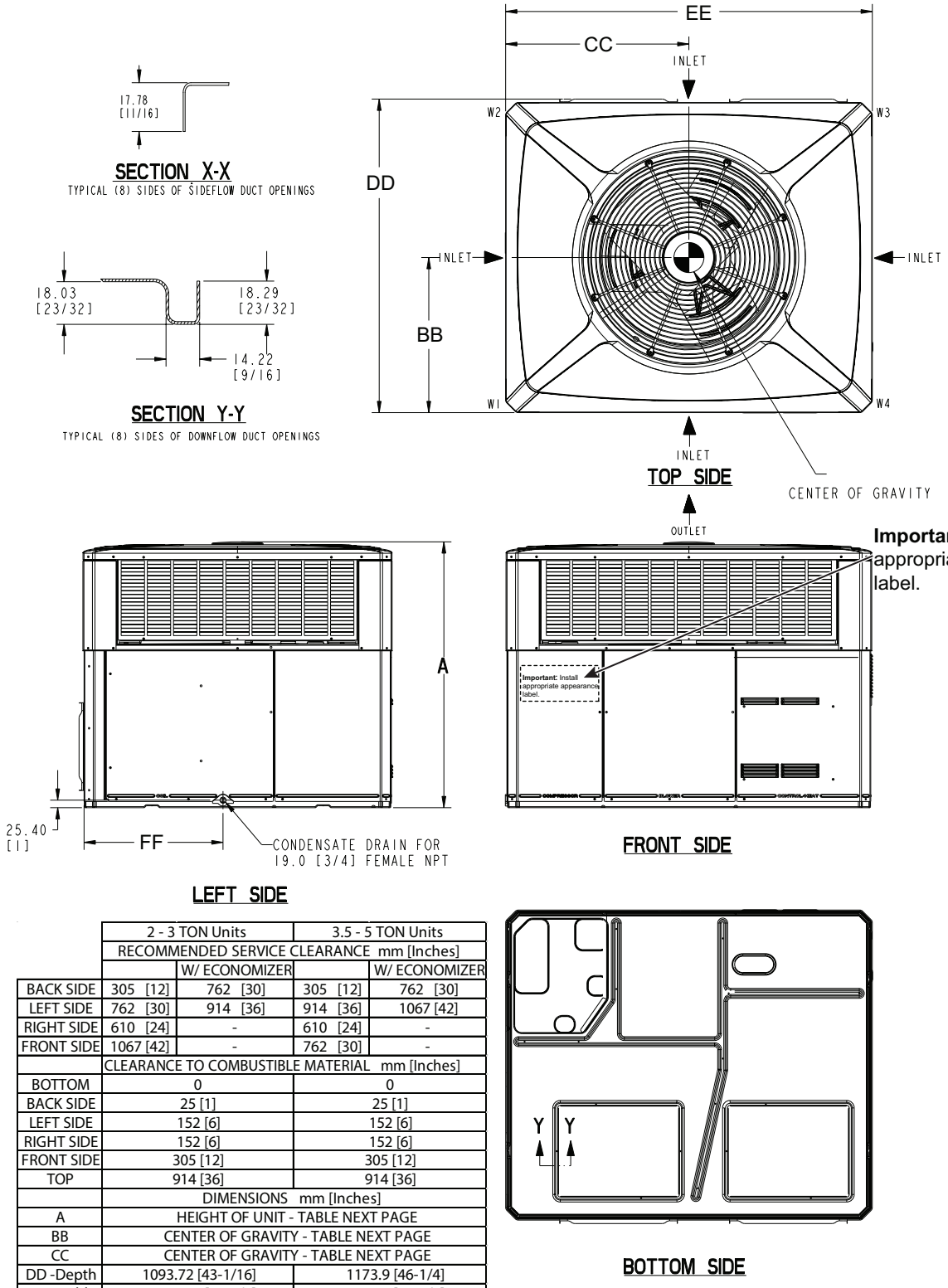
MODEL	A5PA3036A1000A
RATED Volts/PH/Hz	208–230/1/60
Performance Cooling BTUH [a]	36800
Indoor Airflow (CFM)	1190
Power Input (KW)	3.12
EER2/SEER2 (BTU/Watt-Hr.) [b]	10.6 / 13.4
Sound Power Rating [dB(A)] [c]	69.3
POWER CONN. — V/Ph/Hz	208–230/1/60
Min. Brch. Cir. Ampacity [d]	28
Fuse Size — Max. (amps)	40
Fuse Size — Recmd. (amps)	40
COMPRESSOR	SCROLL
VOLTS/PH/HZ	208–230/1/60
R.L. Amps — L.R. Amps	16.7 / 93.5
OUTDOOR COIL — TYPE	SPINE-FIN
Rows/F.P.I	2 / 24
Face Area (sq. ft.)	15.49
Tube Size (in.)	3/8
INDOOR COIL — TYPE	MCHE
Rows/F.P.I	2 / 16
Face Area (sq. ft.)	2.7
Tube Size (in.)	1.0
Refrigeration Control	EXPANSION VALVE
Drain Conn. Size (in.)	3/4 FEMALE NPT
OUTDOOR FAN — TYPE	PROPELLER
DIA. (IN.)	23.4
DRIVE/NO. SPEEDS	DIRECT / 1
CFM @ 0.0 in. w.g. [e]	3080
Motor — HP/R.P.M	1/5 / 825

MODEL	A5PA3036A1000A
Volts/Ph/Hz	208–230/1/60
F.L. Amps/L.R Amps	1.1 / 2.0
INDOOR FAN — TYPE	CONSTANT TORQUE ECM
Dia. x Width (in.)	10.62 X 10.62
Drive/No. Speeds	DIRECT / 4
CFM @ 0.0 in. w.g. [f]	SEE FAN PERF TABLE
Motor — HP/R.P.M.	3/4 / 1050
Volts/Ph/Hz	208–230/1/60
F.L. Amps	6.0
FILTER / FURNISHED	NO
Type Recommended	THROWAWAY
Recmd. Face Area (sq. ft) [g]	4.0
REFRIGERANT	R-454B
Charge (lbs.)	7.2
CHARGING SPECIFICATIONS	
Subcooling	12° F
DIMENSIONS	H X W X L
Crated (in.)	48 X 45 X 52
WEIGHT	
Shipping (lbs.) / Net (lbs.)	458 / 384

[a] Rated in accordance with AHRI Standard 210/240.
[b] Rated in accordance with D.O.E. test procedure.
[c] Sound Power values are not adjusted for AHRI 270–95 tonal corrections.
[d] Calculated in accordance with currently prevailing Nat'l Electrical Code.
[e] Standard Air — Dry Coil — Outdoor.
[f] Standard Air — Dry Coil — Indoor
[g] 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.

Determine Unit Clearances

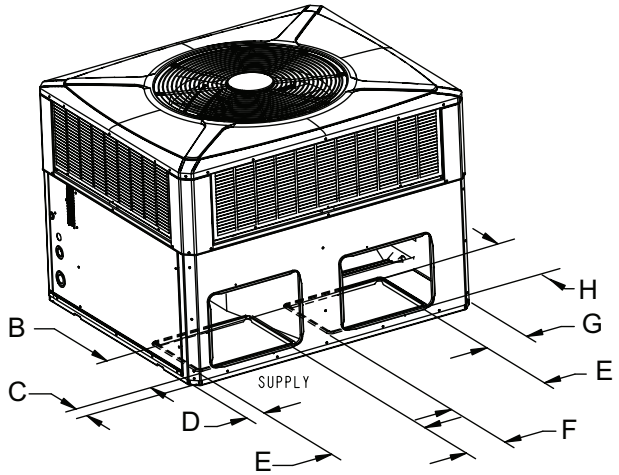
Figure 1. Space on Sides Requirements



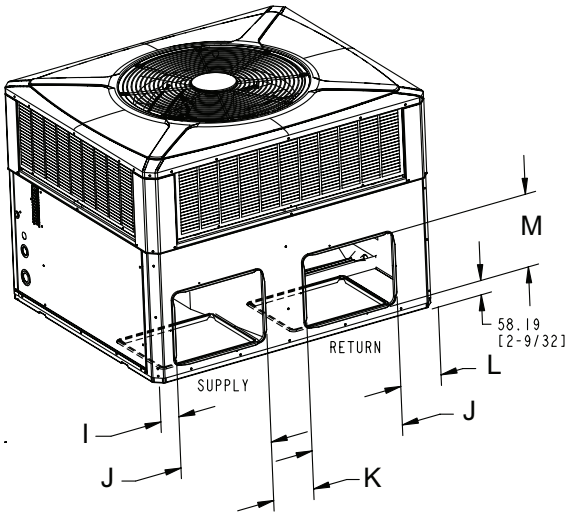
Important: Install appropriate appearance label.

	2 - 3 TON Units		3.5 - 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	610 [24]	-	610 [24]	-
FRONT SIDE	1067 [42]	-	762 [30]	-
	CLEARANCE TO COMBUSTIBLE MATERIAL mm [Inches]			
BOTTOM	0		0	
BACK SIDE	25 [1]		25 [1]	
LEFT SIDE	152 [6]		152 [6]	
RIGHT SIDE	152 [6]		152 [6]	
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			
DD -Depth	1093.72 [43-1/16]		1173.9 [46-1/4]	
EE -Width	1284.99 [50-5/8]		1535.94 [60-1/2]	
FF	497.8 [19-5/8]		576.00 [22-11/16]	

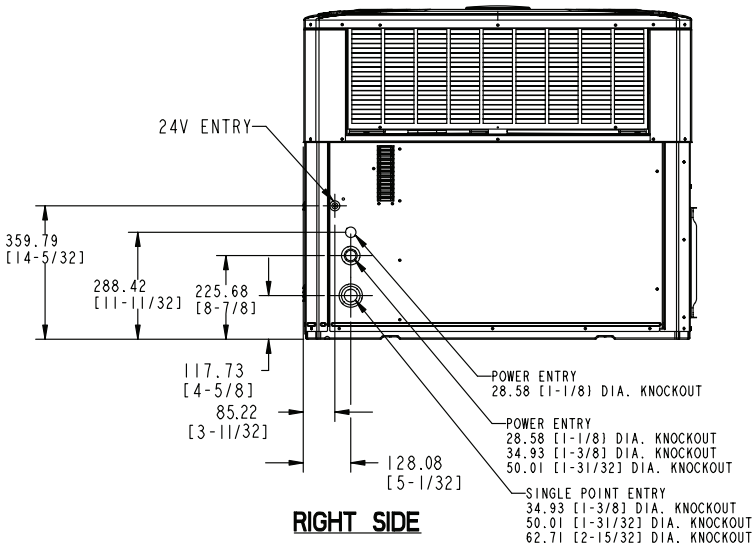
Figure 2. Bottom and Back Duct Openings



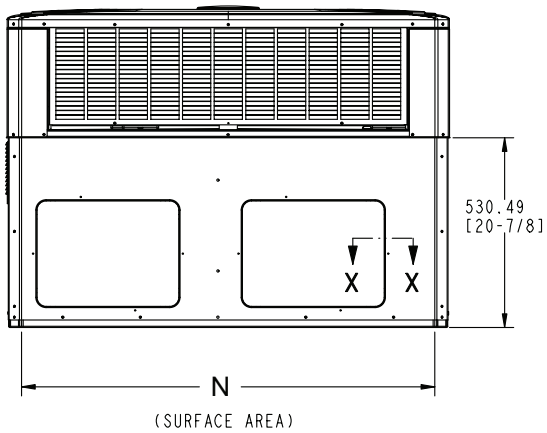
BOTTOM DUCT OPENINGS



BACK DUCT OPENINGS



RIGHT SIDE



BACK SIDE

	Height mm [in]	PHYSICAL DIMENSIONS mm [in]												
	A -Height	B	C	D	E	F	G	H	I	J	K	L	M	N
A5PA3024	898.53 [35 - 3/8]	304.80 [12.0]	75.41 [2.93]	75.41 [2.93]	406.40 [16.0]	167.89 [6.61]	173.46 [6.8]	304.80 [12.0]	79.50 [3.13]	398.22 [15.68]	176.07 [6.93]	177.55 [6.99]	296.62 [11.68]	1155.45 [45.49]
A5PA3030	949.33 [37 - 3/8]													
A5PA3036														
A5PA3042	898.53 [35 - 3/8]	457.20 [18.0]	75.41 [2.97]	75.41 [2.97]	381.00 [15.0]	244.09 [9.61]	318.75 [12.55]	381.00 [15.0]	79.50 [3.13]	449.02 [17.68]	176.07 [6.93]	322.84 [12.71]	372.82 [14.68]	1402.34 [55.21]
A5PA3048	1000.13 [39 - 3/8]													
A5PA3060														

	Corner Weights KG [LBS]				SHIPPING WEIGHT	UNIT WEIGHT	Center Of Gravity mm [inch]	
	W1	W2	W3	W4	KG [LBS]	KG [LBS]	BB	CC
A5PA3024	60.3 [133]	36.8 [81]	26.1 [58]	41.0 [90]	197.8 [436]	164.2 [362]	479.8 [18.9]	527.8 [20.8]
A5PA3030	63.1 [139]	38.7 [85]	27.5 [61]	43.1 [95]	205.9 [454]	172.4 [380]	406.5 [16.0]	594.1 [23.4]
A5PA3036	63.9 [141]	38.9 [86]	27.7 [61]	43.7 [96]	207.7 [458]	174.2 [384]	414.3 [16.3]	697.6 [27.5]
A5PA3042	72.7 [160]	47.2 [104]	35.2 [78]	53.6 [118]	255.8 [564]	208.7 [460]	470.8 [18.5]	731.0 [28.8]
A5PA3048	75.0 [165]	45.0 [99]	33.8 [75]	54.4 [120]	255.4 [563]	208.2 [459]	433.0 [17.0]	743.3 [29.3]
A5PA3060	79.3 [175]	46.3 [102]	34.9 [77]	59.0 [130]	266.7 [588]	219.5 [484]	414.0 [16.3]	635.0 [25.0]

Indoor Fan Performance (230v)

A5PA3036		EXTERNAL STATIC PRESSURE (IN.WG) 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
LOW	Watts	247 [248]	258 [260]	267 [269]	277 [279]	287 [289]	-	-	-	-	-	-
	CFM	1192 [1180]	1160 [1148]	1126 [1115]	1091 [1080]	1052 [1041]	-	-	-	-	-	-
MED-LOW[a]	Watts	-	352 [354]	361 [363]	372 [374]	382 [384]	392 [394]	404 [406]	416 [418]	-	-	-
	CFM	-	1272 [1259]	1243 [1231]	1214 [1202]	1186 [1174]	1154 [1142]	1116 [1105]	1072 [1061]	-	-	-
MED-HIGH	Watts	-	410 [410]	419 [419]	427 [427]	437 [437]	447 [447]	423 [423]	-	-	-	-
	CFM	-	1326 [1320]	1300 [1294]	1271 [1263]	1241 [1234]	1201 [1196]	1107 [1102]	-	-	-	-
HIGH	Watts	-	-	-	-	-	516 [519]	527 [530]	539 [542]	552 [555]	566 [569]	575 [578]
	CFM	-	-	-	-	-	1326 [1299]	1296 [1270]	1263 [1238]	1225 [1201]	1183 [1159]	1150 [1127]

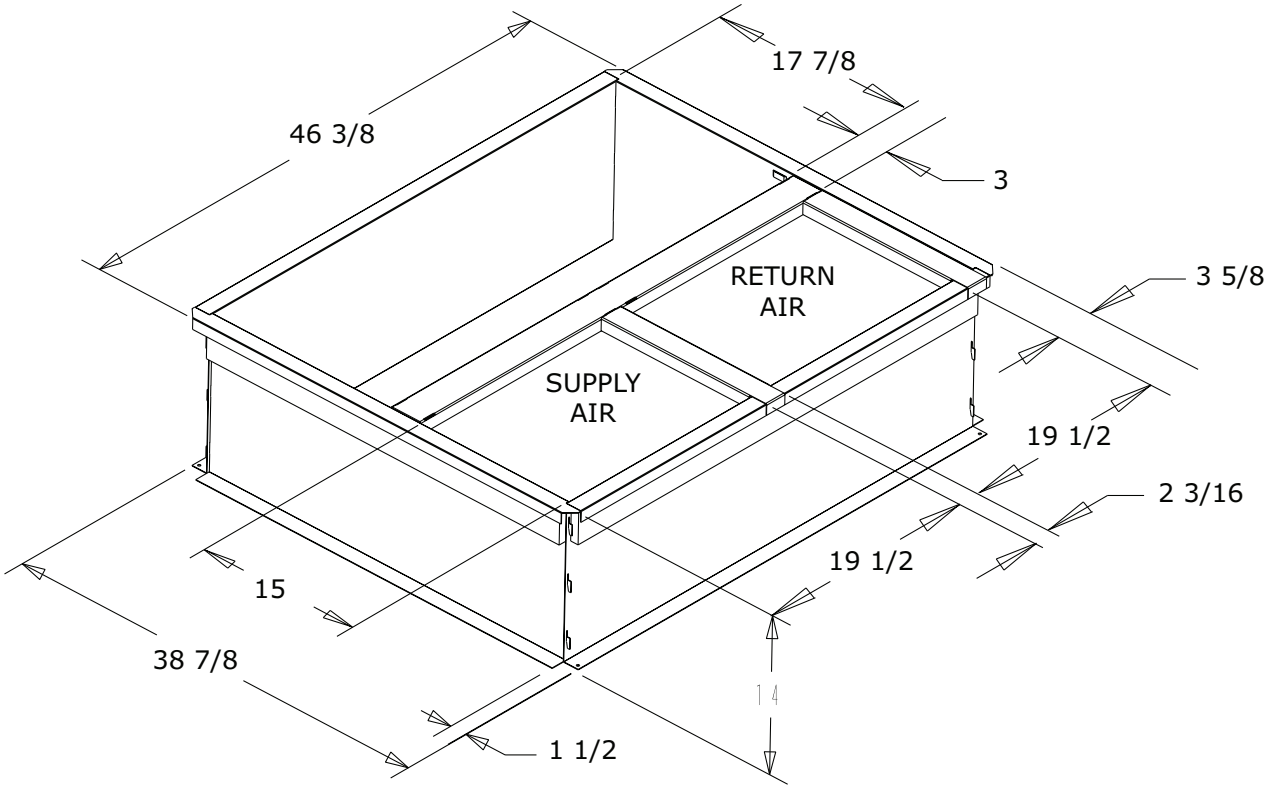
Note: *Airflow must not exceed 1350 CFM due to condensate blowoff.*

[a] Factory Default Setting.

Full Perimeter Roof Mounting Curb

Figure 3. 2.0 — 3.0 Ton Models

BAYCURB050A Full Perimeter Roof Mounting Curb



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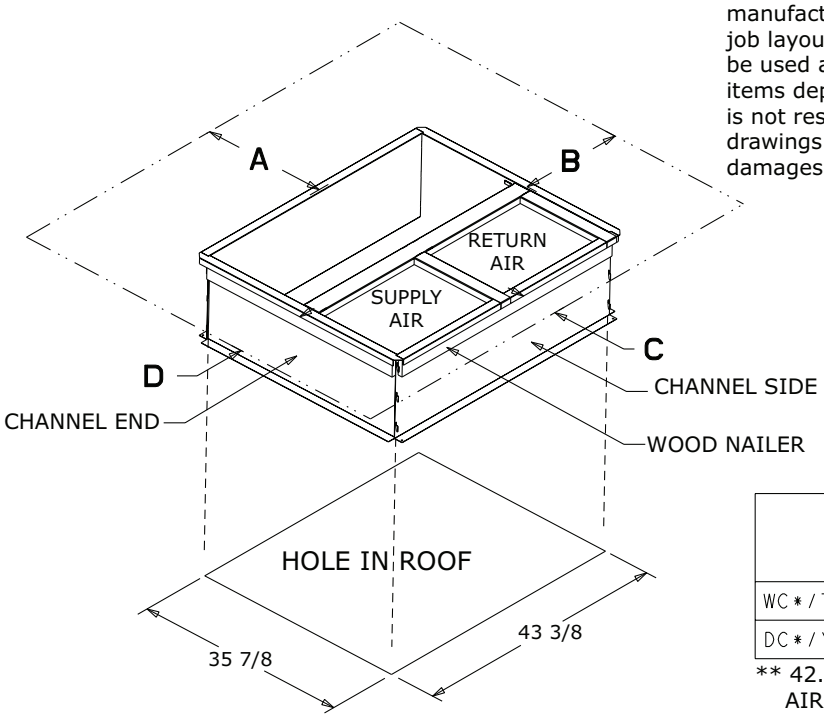


	SERVICE CLEARANCE DIMENSIONS			
	A	**B**	**C**	**D**
WC*/TC*	42.00	36.00	12.00**	24.00
DC*/YC*	42.00	36.00	12.00**	36.00

** 42.00 WITH ECONOMIZER WITH 25% FRESH AIR ACCESSORY

Supplementary Electric Heater

Table 1. BAYHTRG — 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			
3024–3060	BAYHTRG105	208/240	1	18/21	3.76/5.0	12800/ 17100	1	3.76/ 5.0	—	23/26	25/30	25/30
3024–3060	BAYHTRG108	208/240	1	29/33	6.0/8.0	20500/ 27300	1	6.0/ 8.0	—	36/41	40/45	40/45
3024–3060	BAYHTRG110	208/240	1	36/42	7.5/10.0	25600/ 34100	1	7.5/ 10.0	—	45/52	45/60	45/60
3030–3060	BAYHTRG115	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
3048–3060	BAYHTRG120	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
3060	BAYHTRG125	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 2. 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
A5PA3036A	BAYSPEK60	BAYHTRG105	34	40
		BAYHTRG108	49	50
		BAYHTRG110	60	60
	BAYSPEK63	BAYHTRG115	86	90

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)

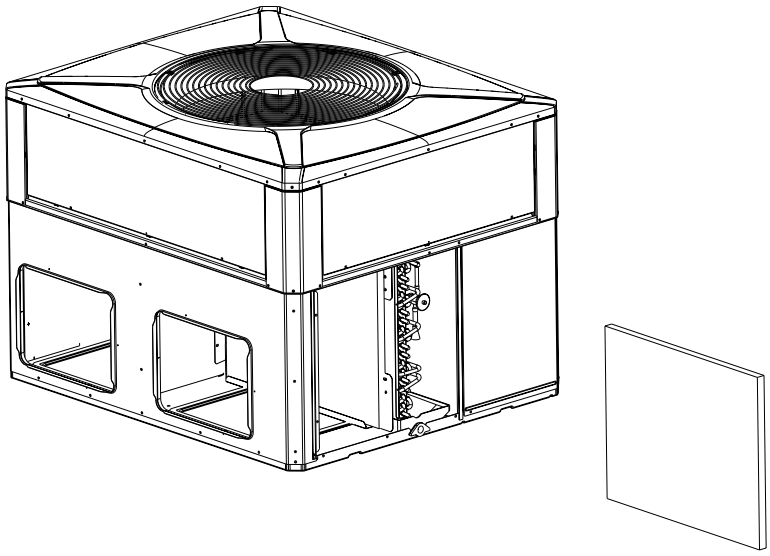
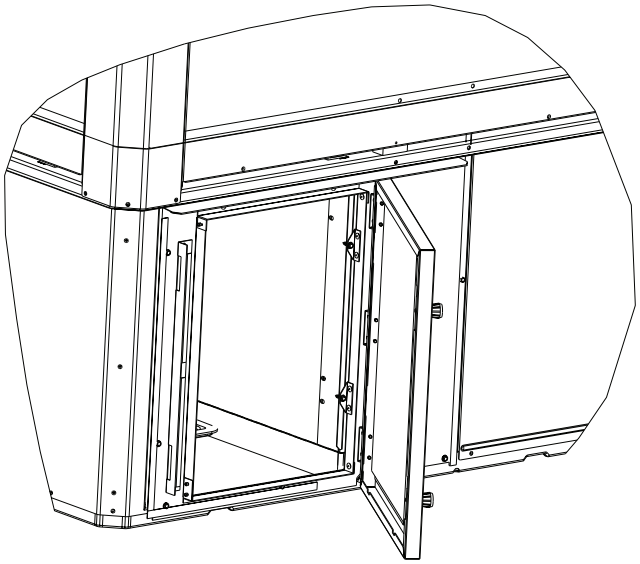


Figure 5. BAYACCDOR1A Hinged Filter Access Door (2.0 – 3.0 Ton Models)
BAYACCDOR2A (3.5 – 5.0 Ton Models)
Replaces Filter/Coil Access Panel



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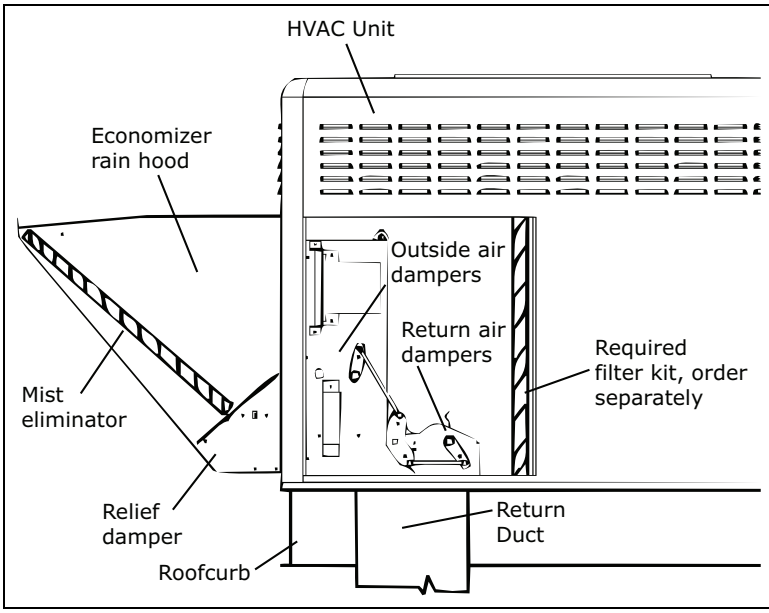
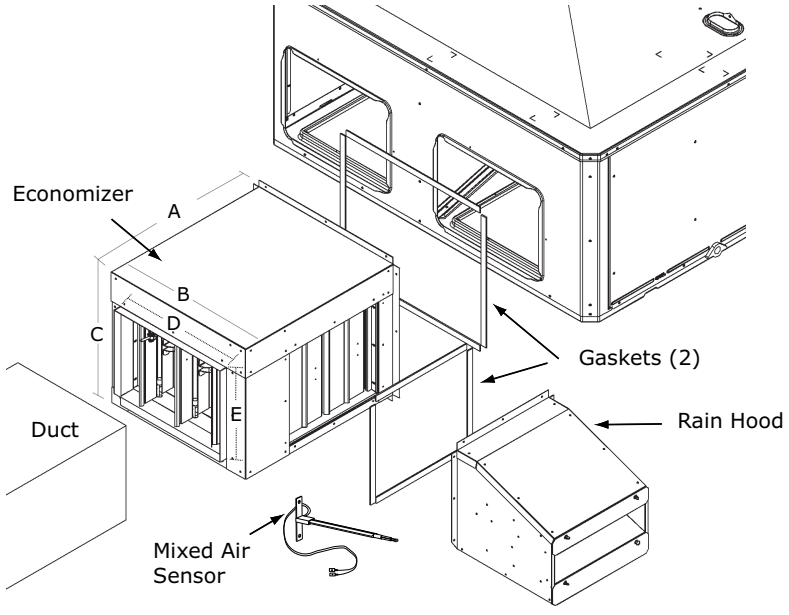
Optional Equipment — Economizer

Table 3. BAYECON105,106A Down Discharge Economizer and Rain Hood (Mounts Over Horizontal Return Air Opening)



Economizer	Unit Application Models
BAYECON105A	2.0 — 3.0 Ton Models
BAYECON106A	3.5 — 5.0 Ton Models

Table 4. BAYCON205, 206A Horizontal Economizer and Rain Hood



Economizer	Models	A	B	C	D	E	F
BAYECON205A	2.0 — 3.0 Ton	22″	20″	16–7/8″	15–11/16″	11–11/16″	15″
BAYECON206A	3.5 — 5.0 Ton	26″	22–21/32″	19″	17–11/16″	14–11/16″	21–3/8″

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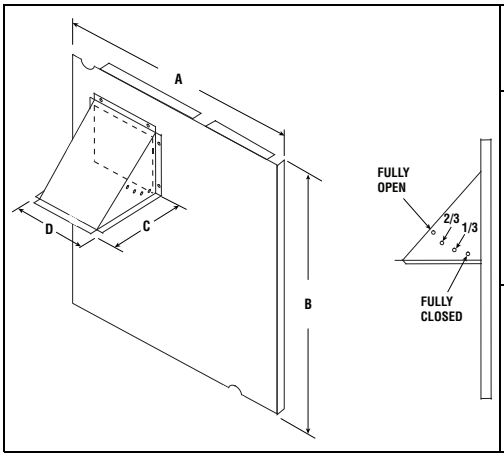
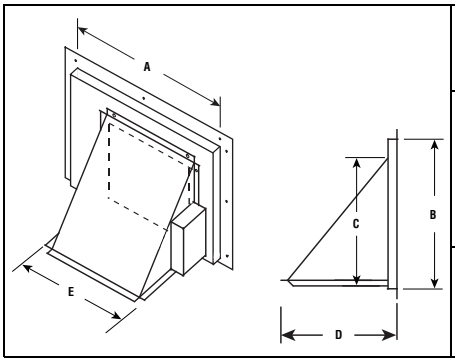
Optional Equipment — Outside Air Damper

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″

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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 (2–4 Ton Models) All aluminum micro channel, extruded tubes, mechanically bonded to aluminum fins, and factory pressure tested at 480 PSIG and leak tested at 250 to 300 PSIG. All units have TXV to control refrigerant flow.

Evaporator Coil (5 Ton Model) Internally enhanced 3/8" 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 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 Torgue, 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 BAYRLAY004B 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.

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A5PA3036A-SUB-1A-EN 13 Dec 2024
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