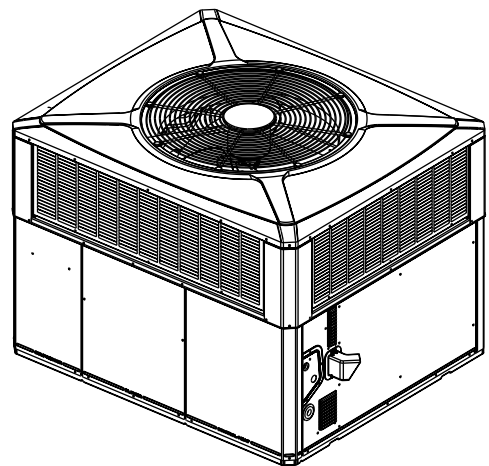


Submittal

Single Packaged Convertible Gas/Electric 14 SEER

4YCC4048A1070A
4YCC4048A1090A



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 GASES!

Exposure to fuel substances or by-products of incomplete fuel combustion is believed by the state of California to cause cancer, birth defects, or other reproductive harm.

This warning complies with state of California law, Proposition 65.

⚠ 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.

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	4YCC4048A1070A	4YCC4048A1090A
RATED Volts/PH/Hz	208-230/1/60	208-230/1/60
Performance Cooling BTUH ^(a)	46500	46500
Indoor Airflow (CFM)	1600	1600
Power Input (KW)	4.09	4.09
EER/SEER (BTU/Watt-Hr.)	11.50 / 14.00	11.50 / 14.00
Sound Power Rating [dB(A)] ^(b)	72.5	72.5
PERFORMANCE HEATING^(c)		
Input BTUH-1st Stage (Natural Gas) ^(d)	70000	90000
AFUE	81	81
Temp. Rise — Min/Max (°F)	30 / 60	35 / 65
Orifice Qty/Drill Sz. (Natural Gas)	2 / #33	3 / #37
POWER CONN. — V/Ph/Hz	208-230/1/60	208-230/1/60
Min. Brch. Cir. Ampacity ^(e)	32.0	32.0
Fuse Size — Max. (amps)	50	50
Fuse Size — Recmd. (amps)	50	50
COMPRESSOR	SCROLL	SCROLL
VOLTS/PH/HZ	208-230/1/60	208-230/1/60
R.L. Amps — L.R. Amps	19.6 / 130.0	19.6 / 130.0
OUTDOOR COIL — TYPE	SPINE-FIN	SPINE-FIN
Rows/F.P.I	2 / 24	2 / 24
Face Area (sq. ft.)	20.54	20.54
Tube Size (in.)	3/8	3/8
INDOOR COIL — TYPE	MCHE	MCHE
Rows/F.P.I	2 / 16	2 / 16
Face Area (sq. ft.)	3.9	3.9
Tube Size Width (in.)	.81	.81
Refrigeration Control	EXPANSION VALVE	EXPANSION VALVE
Drain Conn. Size (in.)	3/4 FEMALE NPT	3/4 FEMALE NPT
OUTDOOR FAN — TYPE	SWEPT	SWEPT
DIA. (IN.)	28.25	28.25
DRIVE/NO. SPEEDS	DIRECT / 1	DIRECT / 1
CFM @ 0.0 in. w.g. ^(f)	4800	4800
Motor — HP/R.P.M	1/4 / 825	1/4 / 825
Volts/Ph/Hz	208-230 / 1 / 60	208-230 / 1 / 60

F.L. Amps/L.R Amps	1.51 / 3.07	1.51 / 3.07
INDOOR FAN — TYPE	CONSTANT TORQUE ECM	CONSTANT TORQUE ECM
Dia. x Width (in.)	10.62 X 10.62	10.62 X 10.62
Drive/No. Speeds	DIRECT / 3	DIRECT / 3
CFM @ 0.0 in. w.g. ^(g)	SEE FAN PERF TABLE	SEE FAN PERF TABLE
Motor — HP/R.P.M.	3/4 / 1050	3/4 / 1050
Volts/Ph/Hz	208-230/1/60	208-230/1/60
F.L. Amps	6	6
COMBUSTION FAN — TYPE	CENTRIFUGAL	CENTRIFUGAL
Drive/No. Speeds	DIRECT / 1	DIRECT / 1
Motor — HP/R.P.M.	1/34 / 3290	1/34 / 3075
Volts/Ph/Hz	230/1/60	230/1/60
FLA	.20	.24
FILTER / FURNISHED	NO	NO
Type Recommended	THROWAWAY	THROWAWAY
Recmd. Face Area (sq. ft) ^(h)	5.3	5.3
REFRIGERANT	R-410	R-410
Charge (lbs.)	7.5	7.5
CHARGING SPECIFICATIONS		
Subcooling	10°	10°
GAS PIPE SIZE (in.)	1/2	1/2
DIMENSIONS	H X D X W	H X D X W
Crated (in.)	50 X 47 X 62	50 X 47 X 62
WEIGHT		
Shipping (lbs.) / Net (lbs.)	552 / 448	557 / 453

(a) Rated in accordance with AHRI Standard 210/240. AHRI standard rating conditions are: 80 D.B.67 W.B. entering air to indoor coil. 95 D. B. entering air to outdoor coil.

(b) Sound Power values are not adjusted for AHRI 270-95 tonal corrections.

(c) Ratings shown are for elevations up to 2000 ft. For higher elevations reduce ratings at a rate of 4% per 1000 ft. elevation.

(d) Convertible to LPG.

(e) This value is approximate. For more precise value, see Unit Nameplate.

(f) Standard Air — Dry Coil — Outdoor.

(g) Based on U.S. Government Standard Tests.

(h) 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. 4YCC4042-4060

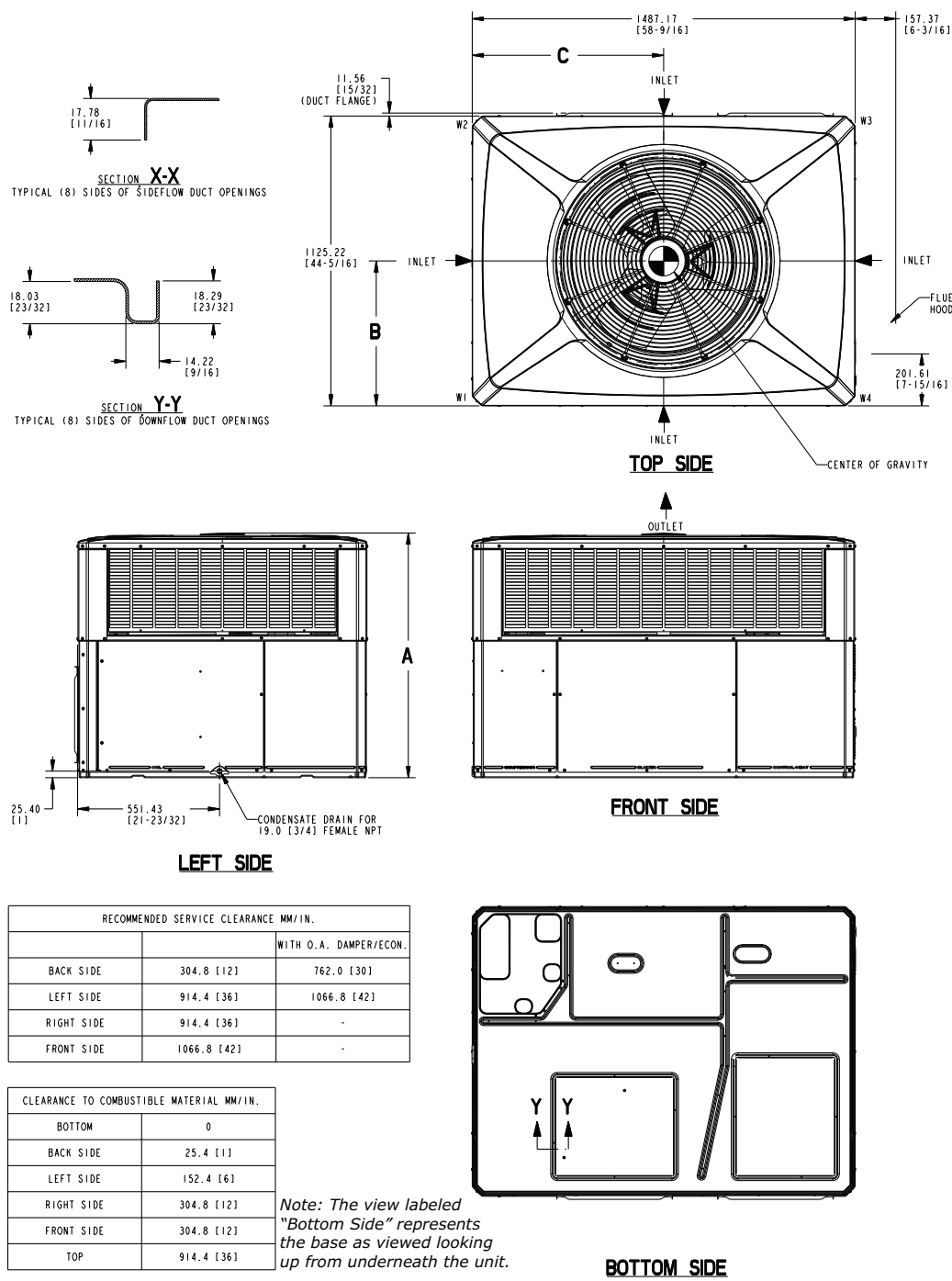
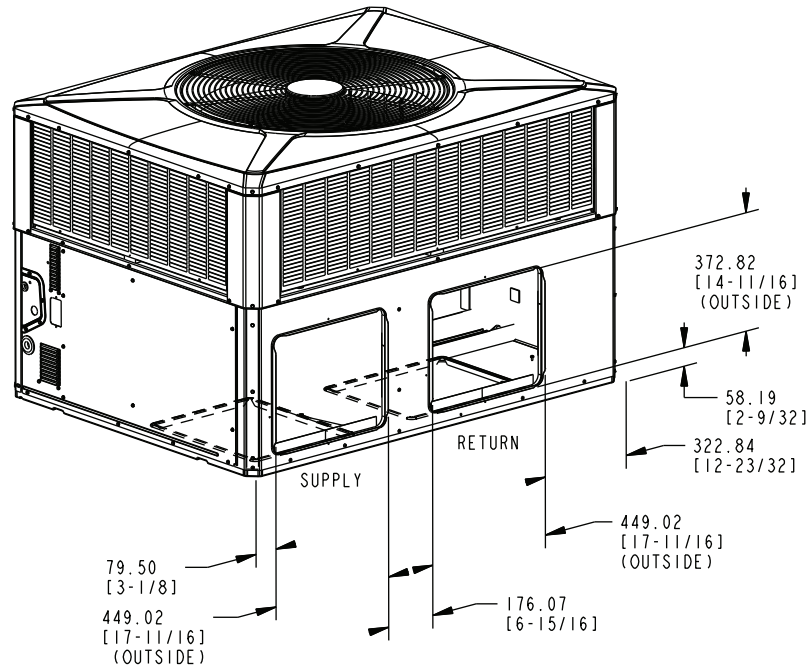
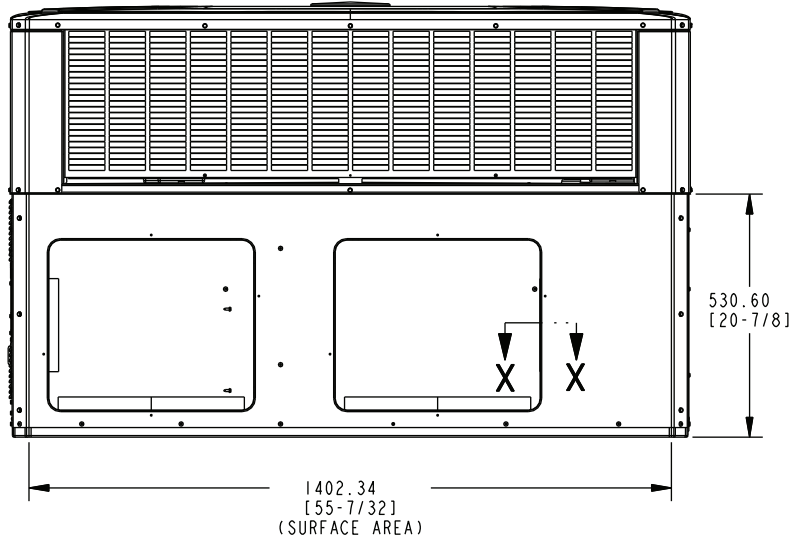


Figure 2. 4YCC4042-4060



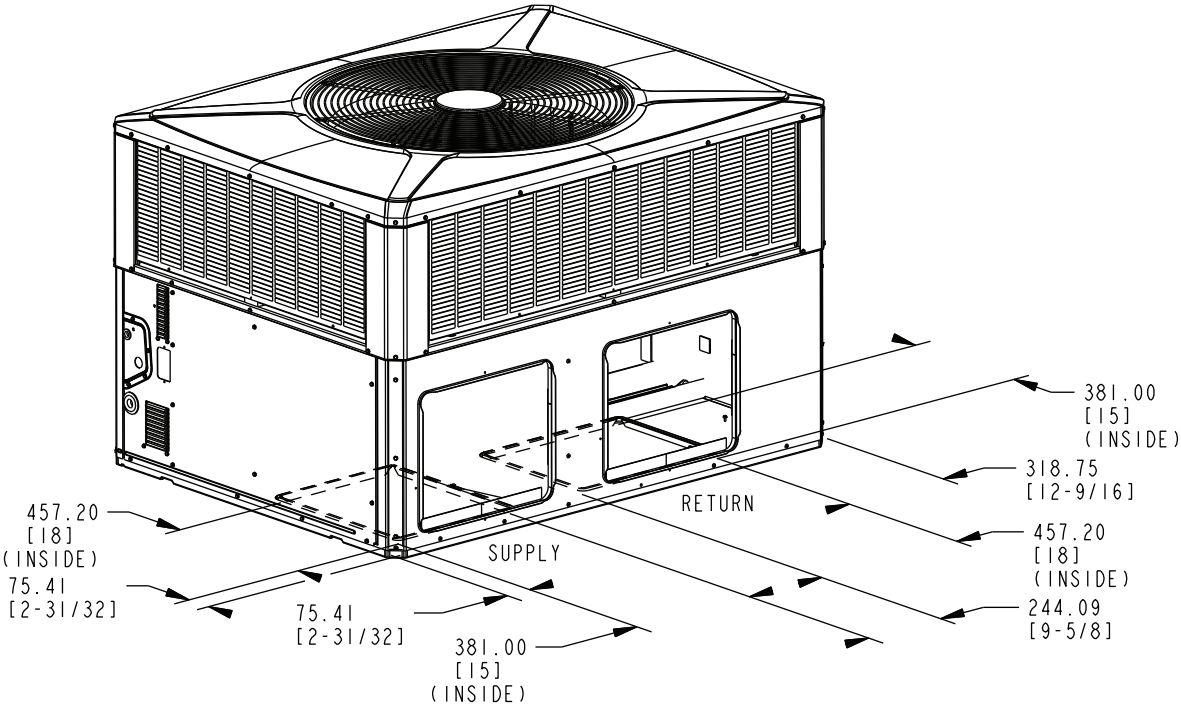
BACK DUCT OPENINGS



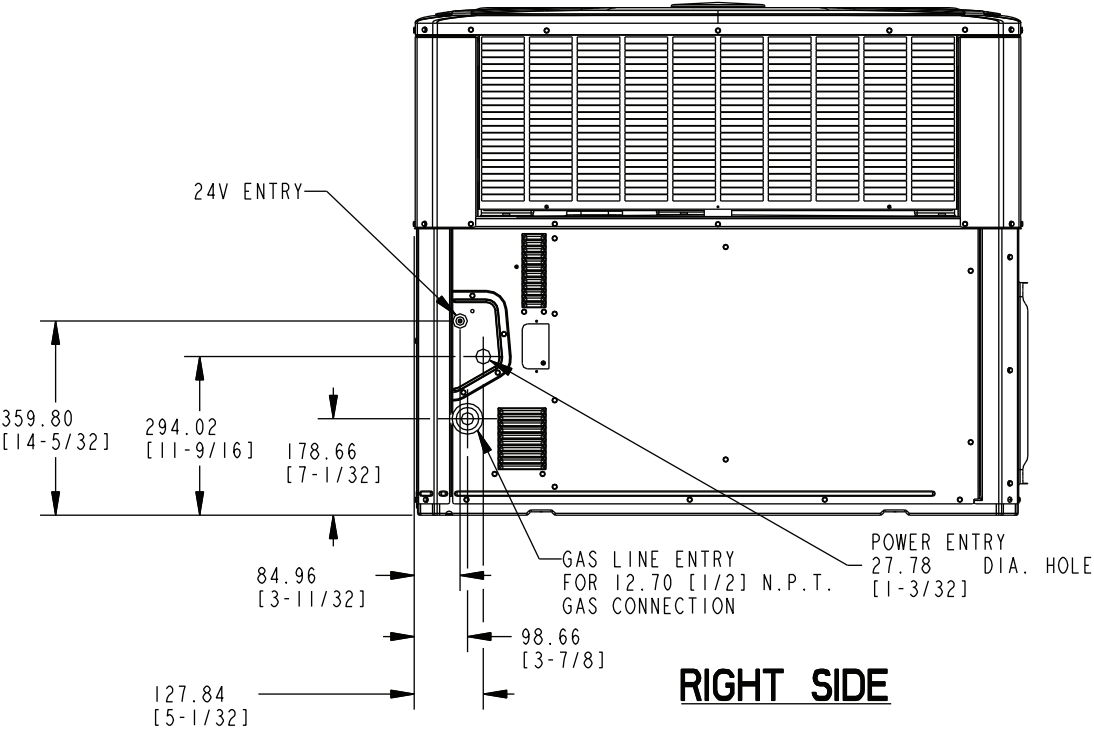
BACK SIDE

Model	Height mm/in	Approx. Corner Weight - kg / lbs				Shipping Weight kg/lbs	Total Unit Weight kg/lbs	Center of Gravity mm/in	
	A	W1	W2	W3	W4			B	C
4YCC4042 (060)	898.53 [35-3/8]	71.2 [157]	46.6 [103]	34.6 [76]	53.1 [117]	252.2 [555]	202.0 [452]	470.0 [18.5]	731.0 [28.8]
4YCC4042 (090)	898.53 [35-3/8]	71.8 [158]	47.2 [104]	35.2 [78]	53.6 [118]	254.5 [561]	207.3 [457]	470.0 [18.5]	731.0 [28.8]
4YCC4048 (070)	1000.13 [39-3/8]	71.4 [157]	44.6 [98]	33.2 [73]	53.9 [119]	250.3 [552]	202.1 [448]	433.0 [17.0]	743.3 [29.3]
4YCC4048 (090)	1000.13 [39-3/8]	72.0 [159]	45.0 [99]	33.8 [75]	54.4 [120]	252.6 [557]	205.4 [453]	433.0 [17.0]	743.3 [29.3]
4YCC4060 (090)	1000.13 [39-3/8]	77.1 [170]	45.8 [101]	34.4 [76]	58.3 [128]	263.1 [580]	215.9 [476]	433.0 [17.0]	743.3 [29.3]
4YCC4060 (115)	1000.13 [39-3/8]	78.0 [172]	46.3 [102]	34.9 [77]	59.0 [130]	265.8 [586]	218.6 [482]	414.0 [16.3]	635.0 [25.0]

Figure 3. 4YCC4042-4060



BOTTOM DUCT OPENINGS



Indoor Fan Performance

Table 1. Horizontal Airflow

4YCC4048A1070A			EXTERNAL STATIC PRESSURE (IN. WG)										
MOTOR SPEED	Tap Number		0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
CONSTANT CIRCULATION	1	CFM	APPROXIMATELY 40 - 50 % COOLING OR HEATING AIRFLOW										
		WATTS											
COOLING-LOW	2	CFM	1583	1542	1502	1460	1415	1371	1326	1282	1230	1181	—
		WATTS	302	313	324	332	345	353	368	376	394	406	—
COOLING-HIGH	3	CFM	1763	1723	1689	1648	1609	1568	1527	1488	1447	1404	—
		WATTS	414	426	436	448	459	471	483	495	510	524	—
HEAT-LOW	4	CFM	1120	1047	980	914	840	758	674	581	—	—	—
		WATTS	117	126	135	145	156	168	179	188	—	—	—
HEAT-HIGH	5	CFM	—	1204	1149	1095	1043	989	926	858	798	—	—
		WATTS	—	176	185	195	205	216	227	239	249	—	—
4YCC4048A1090A			EXTERNAL STATIC PRESSURE (IN. WG)										
CONSTANT CIRCULATION	1	CFM	APPROXIMATELY 40 - 50 % COOLING OR HEATING AIRFLOW										
		WATTS											
COOLING-LOW	2	CFM	1583	1542	1502	1460	1415	1371	1326	1282	1230	1181	—
		WATTS	302	313	324	332	345	353	368	376	394	406	—
COOLING-HIGH	3	CFM	1763	1723	1689	1648	1609	1568	1527	1488	1447	1404	—
		WATTS	414	426	436	448	459	471	483	495	510	524	—
HEAT-LOW	4	CFM	1419	1380	1341	1295	1249	1204	1160	1115	1069	1015	961
		WATTS	240	250	259	269	279	291	302	312	323	333	348
HEAT-HIGH	5	CFM	1559	1524	1483	1443	1401	1363	1319	1276	1233	1195	1147
		WATTS	313	324	335	346	356	367	379	392	403	415	428

Table 2. Down Airflow

4YCC4048A1070A			EXTERNAL STATIC PRESSURE (IN. WG)										
MOTOR SPEED	Tap Number		0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
CONSTANT CIRCULATION	1	CFM	APPROXIMATELY 40 - 50 % COOLING OR HEATING AIRFLOW										
		WATTS											
COOLING-LOW	2	CFM	1567	1526	1487	1445	1401	1358	1312	1270	1218	1169	—
		WATTS	308	320	330	339	352	360	375	384	402	413.9	—
COOLING-HIGH	3	CFM	1745	1706	1672	1632	1593	1552	1512	1473	1433	1390	—
		WATTS	422	434	444	457	468	480	493	505	520	534	—
HEAT-LOW	4	CFM	1126	1052	985	918	845	762	677	584	—	—	—
		WATTS	117	127	136	146	156	168	180	189	—		—
HEAT-HIGH	5	CFM	—	1210	1154	1100	1048	994	930	862	802	—	—
		WATTS	—	177	186	196	206	217	228	240	250	—	—
4YCC4048A1090A			EXTERNAL STATIC PRESSURE (IN. WG)										

Indoor Fan Performance

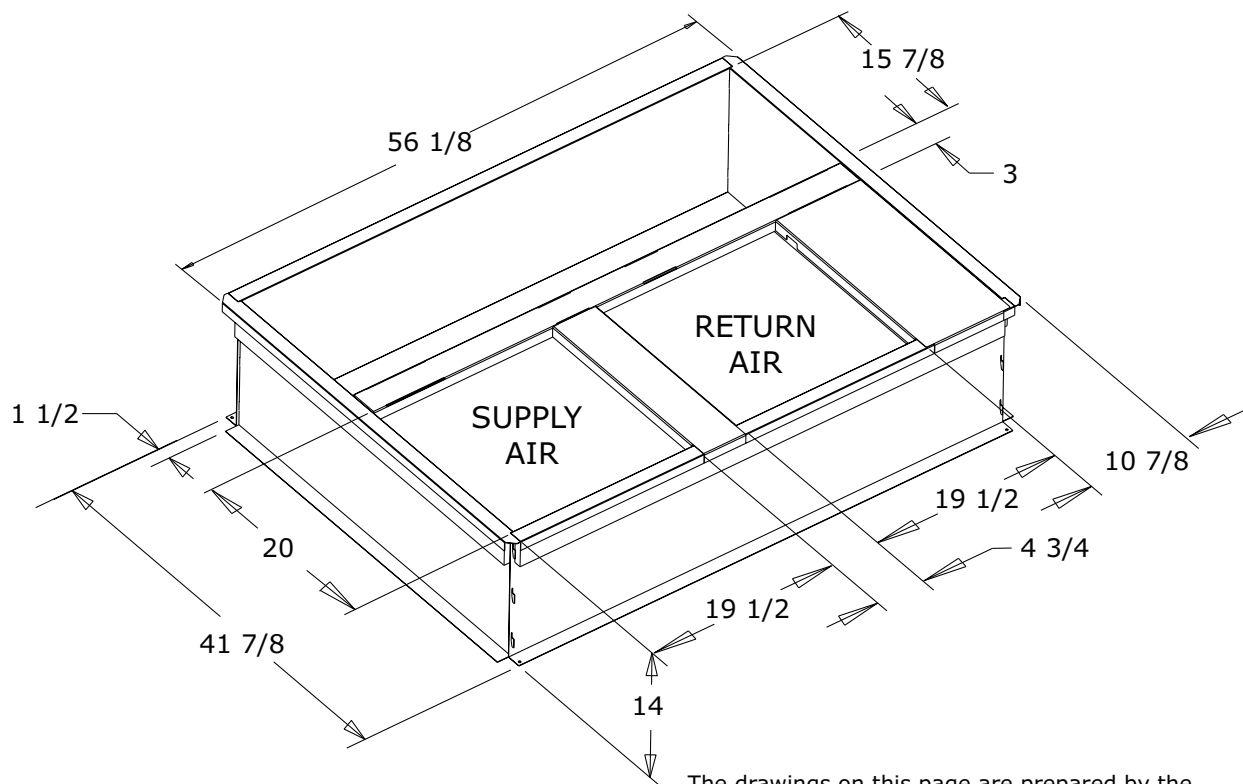
Table 2. Down Airflow (continued)

CONSTANT CIRCULATION	1	CFM	APPROXIMATELY 40 - 50 % COOLING OR HEATING AIRFLOW										
		WATTS											
COOLING-LOW	2	CFM	1567	1526	1487	1445	1401	1358	1312	1270	1218	1169	—
		WATTS	308	320	330	339	352	360	375	384	402	413.9	—
COOLING-HIGH	3	CFM	1745	1706	1672	1632	1593	1552	1512	1473	1433	1390	—
		WATTS	422	434	444	457	468	480	493	505	520	534	—
HEAT-LOW	4	CFM	1426	1387	1348	1301	1255	1210	1166	1120	1074	1020	966
		WATTS	241	251	260	270	281	292	303	314	325	335	349
HEAT-HIGH	5	CFM	1567	1531	1491	1450	1408	1370	1326	1282	1239	1201	1152
		WATTS	315	325	337	347	358	368	381	394	405	417	430

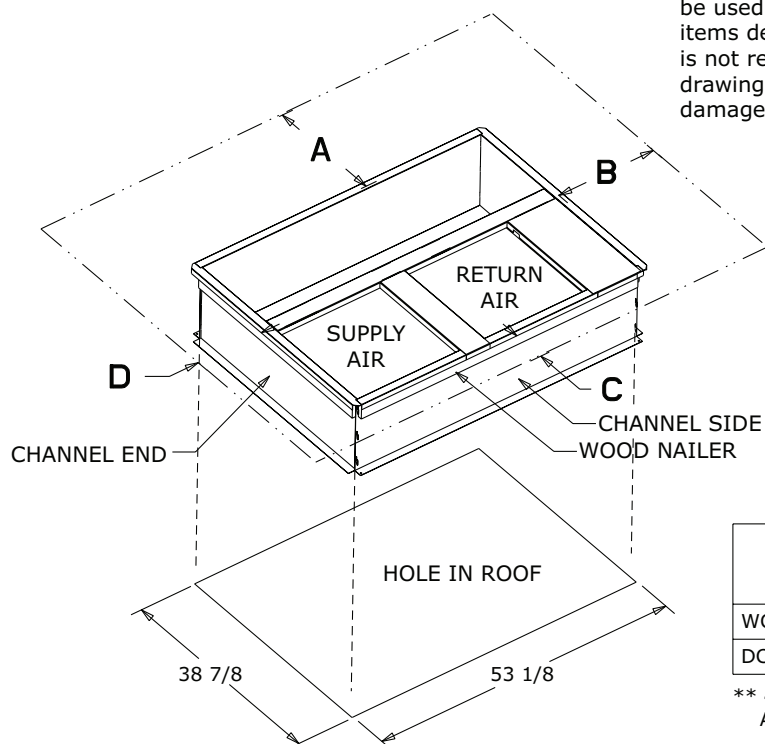
Full Perimeter Roof Mounting Curb

Figure 4. 3.5 – 5.0 Ton Models

BAYCURB051A 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.

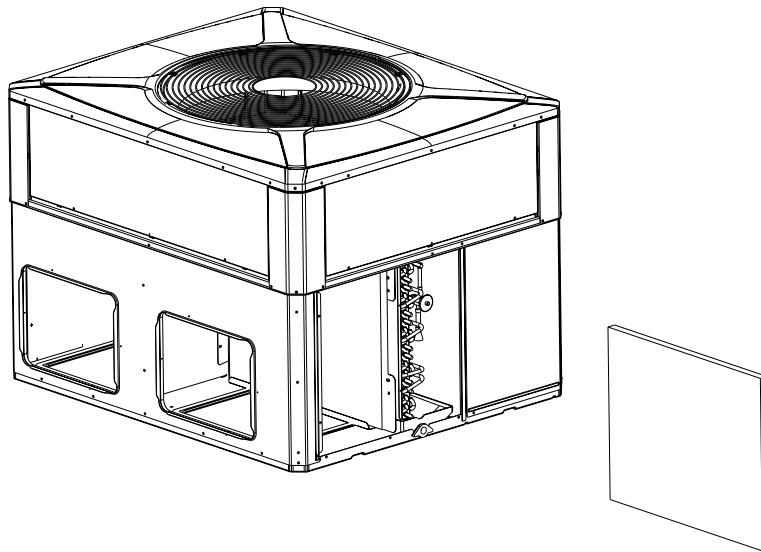


	SERVICE CLEARANCE DIMENSIONS			
	A	B	C	D
WC*/TC*	42.00	36.00	12.00**	24.00
DC*/YC*	42.00	36.00	12.00**	36.00

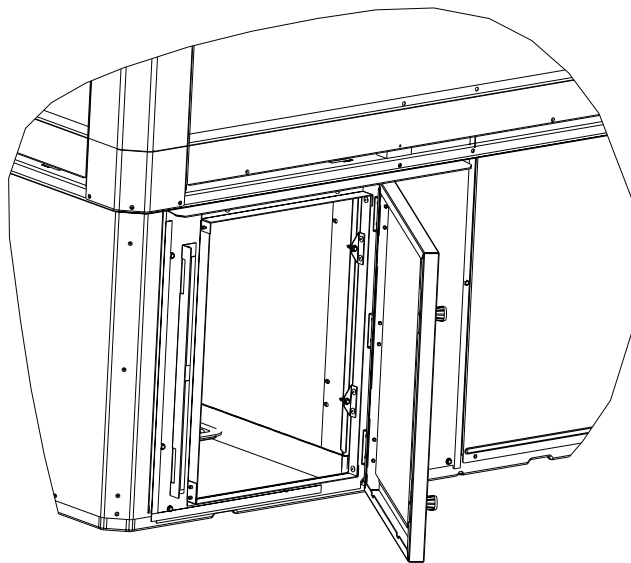
**** 42.00 WITH ECONOMIZER WITH 25% FRESH AIR ACCESSORY**

Optional Equipment — Filter Rack

**Figure 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**



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Optional Equipment — Economizer

Table 3. BAYECON101,102A Down Discharge Economizer and Rain Hood (Mounts Over Horizontal Return Air Opening)

	Economizer	Unit Application Models
	BAYECON101A	2.0 — 3.0 Ton Models
	BAYECON102A	3.5 — 5.0 Ton Models

Table 4. BAYCON200, 201A Horizontal Economizer and Rain Hood

Economizer	Models	A	B	C	D	E	F
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"

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Optional Equipment — Outside Air Damper

Table 5. BAYOSAH001 and 002A

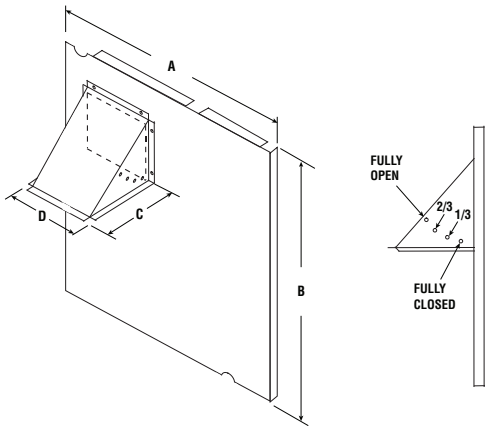
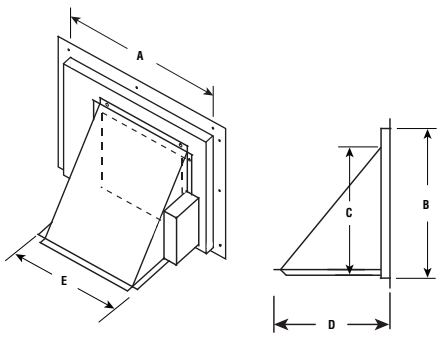
	Manual Fresh Air Model	Unit Application Models	A	B	C	D
	BAYOSAH001A	2.0 — 3.0 Ton	22-7/16"	20-11/16"	12-3/8"	9-3/16"
	BAYOSAH002A	3.5 — 5.0 Ton	25-3/16"	20-11/16"	12-3/8"	9-3/16"

Table 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

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. Units shall be designed to operate at ambient temperatures as high as 115°F. Cooling performance shall be rated in accordance with AHRI standards. The YC heating/cooling unit design is certified to ANSI 221.47/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

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 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.

Heating System

Gas-Fired Heating Section

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.

Electric Ignition System

Main burner is lit each time thermostat calls for heat. Flame sensor proves flame and keeps the main burner on. Should a loss of flame occur, the main valve closes and the spark recurs within 0.8 seconds. 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.

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 or 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.

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.

4YCC4048A-SUB-1F-EN 01 Jun 2020

Supersedes 4YCC4048A-SUB-1E-EN (June 2019)

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