Submittal item detail

#237000-4-1: HVAC Roof Top Units

Status	Created on	Ball in court due date
Closed	Jan 2, 2025	

ID	4
Ball in court	**cole kendig** (MSD Inc.)
Manager	**Tyler McCarty** (Shook Construction)
Responsible contractor	**cole kendig** (MSD Inc.)
Watchers	**Chris Besecker** **Johnnie Wright** **David Day** **Jeff Schlarman** **Todd Kennard** **Andy Shawler** **Lance Beck**
Spec section	237000 Central HVAC Equipment
Spec sub section	
Description	
Final Response	Reviewed with Exceptions
Final Response Attachments	SUBMITTAL #4 (REV. 1) - CENTRAL HVAC EQUIPMENT - AAN.PDF, Jan 27, 2025, 7:53 PM UTC
Final Response Comments	
Package	

RTU-1 PAGE 5
RTU-2 PAGE 18
RTU-3 PAGE 31

RTU-6 (1200 CFM) PAGE 46
RTU-4 (1600 CFM) PAGE 59
RTU-5, 7 (1770 CFM) PAGE 72

Ball in court	Sent	Due	Returned	Response/Action	Attachments
Submitted					
cole kendig (MSD Inc.) Submitted by Tyler McCarty	Jan 13, 2025	Jan 15, 2025	Jan 13, 2025	**Submitted**	007.3 - RTU 1-3 & 007.2 RTUs.pdf
Comments	-				
Sent for review					
Tyler McCarty (Shook Construction) Sent by Tyler McCarty	Jan 13, 2025	-	Jan 13, 2025	**Sent for review**	Submittal #4 (Rev. 1) - Central HVAC Equipment.pdf
Comments	-				
Review Step 1					
Jeff Cyrus (Champlin Architecture) Reviewed By Jeff Cyrus	Jan 16, 2025	Jan 15, 2025	Jan 16, 2025	**For Record Only**	
Comments					
Rich Simpkins (L2 Engineering, LLC) Reviewed By Rich Simpkins	Jan 13, 2025	Jan 15, 2025	Jan 27, 2025	**Reviewed with Exceptions**	Submittal #4 (Rev. 1) - Central HVAC Equipment - AAN.pdf
Comments	From the shop drawing: VOLTAGE VARIES FROM DESIGN DRAWINGS. HVAC CONTRACTOR SHALL COORDINATE NEW FEEDER REQUIREMENTS WITH ELECTRICAL CONTRACTOR. ANY COSTS ASSOCIATED WITH THIS FEEDER CHANGE SHALL BE BORN BY THE HVAC CONTRACTOR. ALL COORDINATION FOR THIS CHANGE IS THE RESPONSIBILITY OF THE CONTRACTORS.				

Submittal #4 (Rev. 1) – Central HVAC Equipment

SNC Warehouse

Date Submitted: 1/13/25
Submitted By:
Shook Construction
Subcontract\Supplier:
MSD
Specification Number:
237000

Item:	Description:	Drawing Number:
1	• Roof Top Units	

Shook Construction Review:

The information included in this submittal has been reviewed by Shook Construction for compliance with the requirements of the contract documents. This does not relieve the supplier and or subcontractor of adherence to the contract documents and engineer's review comments.

A/E Review:

SHOP DRAWING / SUBMITTAL REVIEW

☐ APPROVED ■ APPROVED WITH CHANGES NOTED

☐ REVISE AND RESUBMIT ☐ REJECTED

SUBMITTAL WAS REVIEWED FOR DESIGN CONFORMITY AND GENERAL CONFORMANCE TO CONTRACT DOCUMENTS ONLY. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING DIMENSIONS AT JOBSITE FOR TOLERANCE, CLEARANCE, QUANTITIES, FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION, COORDINATION OF HIS WORK WITH OTHER TRADES AND FULL COMPLIANCE WITH CONTRACT DOCUMENTS

By: Doug Thoma Date: 01/15/2025

L2 Engineering, LLC

VOLTAGE VARIES FROM DESIGN DRAWINGS. HVAC CONTRACTOR SHALL COORDINATE NEW FEEDER REQUIREMENTS WITH ELECTRICAL CONTRACTOR. ANY COSTS ASSOCIATED WITH THIS FEEDER CHANGE SHALL BE BORN BY THE HVAC CONTRACTOR. ALL COORDINATION FOR THIS CHANGE IS THE RESPONSIBILITY OF THE CONTRACTORS.

4401 Springfield St.
Dayton, OH 45431
OH LIC # 24297
937.254.3235
800.254.9455
msdinc.net

RESUBMITTAL COVER SHEET

PROJECT

SNC Warehouse

ENGINEER	ARCHITECT
L2	Champlin

SPECIFICATIONS NO.	ITEM
	RTU's

Resubmittal # 007.2

- [x] Approved
- [ ] Disapproved

Date: 1/13/2025

Submitted by: Cole Kendig

American Standard
HEATING & AIR CONDITIONING

Job Name: SNC
Prepared For:
Unit Tag: PREC-2
Quantity: 1

Precedent Packaged Rooftop RTU-1 YSJ090A4S0M

Unit Overview - YSJ090A4S0M**0000000000000000000000000

Application	Unit Size	Supply Fan		External Dimensions (in.)			Operating Weight	Elevation
		Airflow	Total Static Pressure	Height	Width	Length		
DX Cooling / Gas Heat	7.5 Ton	3000. cfm	1.322 in H2O	4.24 ft	4.44 ft	7.34 ft	1058.0 lb	0.00 ft

Unit Features

Unit Efficiency	Standard Efficiency
Refrigerant	R-410A
EER @ AHRI	11.00 Number
IEER @ AHRI	14.60 Number

Unit Electrical

Voltage/phase/hertz	460/60/3
MCA	21.00 A
MOP	25.00 A
Condenser Fan FLA	1.50 A
Evaporator Fan FLA	4.60 A
Compressor 1 RLA	8.20 A
Compressor 2 RLA	4.30 A
Compressor Power	6.11 kW
System Power	8.86 kW

Controls

Unit Controls	Symbio 700

Cooling Section

		Capacity	
Entering Dry Bulb	80.00 F	Gross Total	94.42 MBh
Entering Wet Bulb	67.00 F	Gross Latent	21.40 MBh
Ambient Temp	95.00 F	Gross Sensible	73.02 MBh
Leaving Coil Dry Bulb	57.45 F	Net Total	90.84 MBh
Leaving Coil Wet Bulb	56.79 F	Net Sensible	69.44 MBh
Leaving Unit Dry Bulb	59.12 F	Net Sensible Heat Ratio	76.44 %
Leaving Unit Wet Bulb	57.45 F	Fan Motor Heat	1.77 MBh
Saturated Discharge Temperature	116.44 F	Refrig Charge-Circuit 1	9.0 lb
Saturated Suction Temperature	51.34 F		

Heating Section

Heating	Medium Gas Heat
Input Heating Capacity	150.00 MBh
Output Heating Capacity	121.50 MBh
Heating EAT	75.00 F
Heating LAT	112.15 F
Heating Temp Rise	37.15 F
Heating Stages	2

Fan Section

Indoor Fan Data	
Airflow Application	Downflow
Design ESP	1.000 in H2O
Component SP	0.151 in H2O
Heat SP	0.171 in H2O
Total SP	1.322 in H2O
Indoor Fan Drive Type	Variable Direct
Indoor Fan Quantity	1.00 Number
Indoor Fan Type	BC Plenum

Indoor Fan Performance	
Airflow	3000. cfm
Supply Motor Horsepower	3.000 hp
Total Supply Motor Operating Power	1.528 hp
Indoor RPM	1308 rpm
Outdoor Fan Data	
Outdoor Fan Drive Type	Direct
Outdoor Fan Quantity	1
Outdoor Fan Type	Propeller
Filters	
1st Filter Size and Qty	2 - 18 x 24 x 2
2nd Filter Size and Qty	3 - 24 x 16 x 2

Field Installed Accessories

Roof curb	14" Full Perimeter Knockdown Curb
Fresh Air Options Module	Fresh Air Option Module
Barometric relief	yes
Fresh air selection	0-100% Economizer, dry bulb control
Discharge air sensing tube	yes

Acoustics

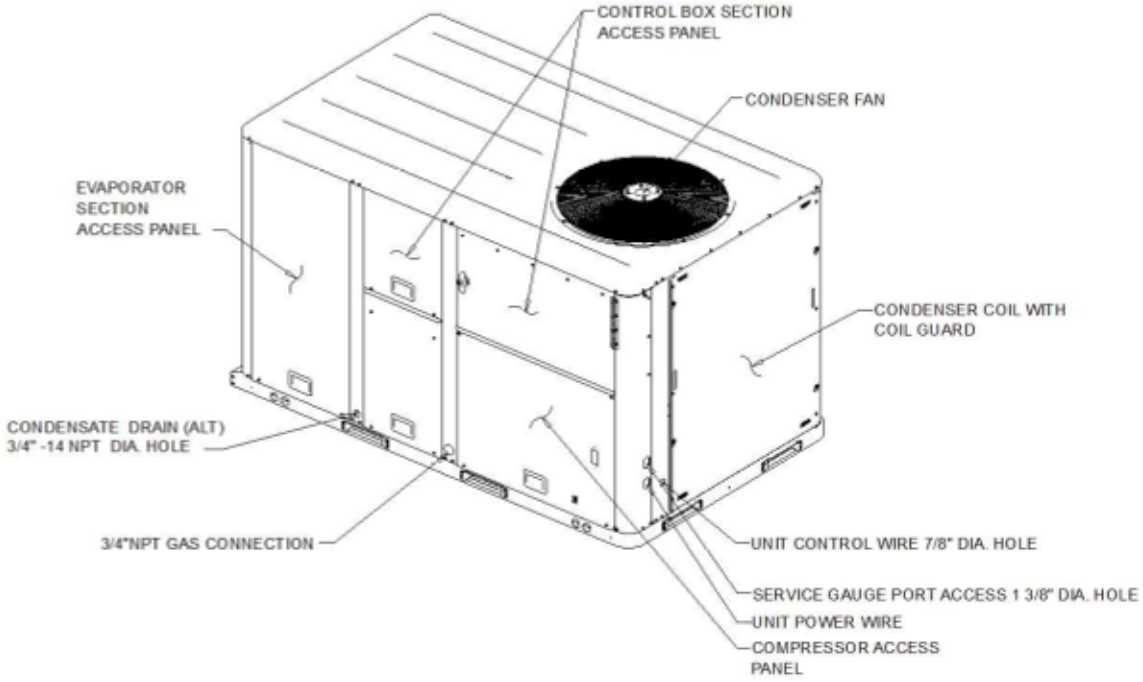
Sound Path	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Ducted Discharge	79 dB	86 dB	78 dB	71 dB	66 dB	63 dB	63 dB	64 dB
Ducted Inlet	75 dB	75 dB	71 dB	59 dB	57 dB	54 dB	55 dB	55 dB
Outdoor Noise	84 dB	86 dB	84 dB	85 dB	82 dB	76 dB	73 dB	67 dB

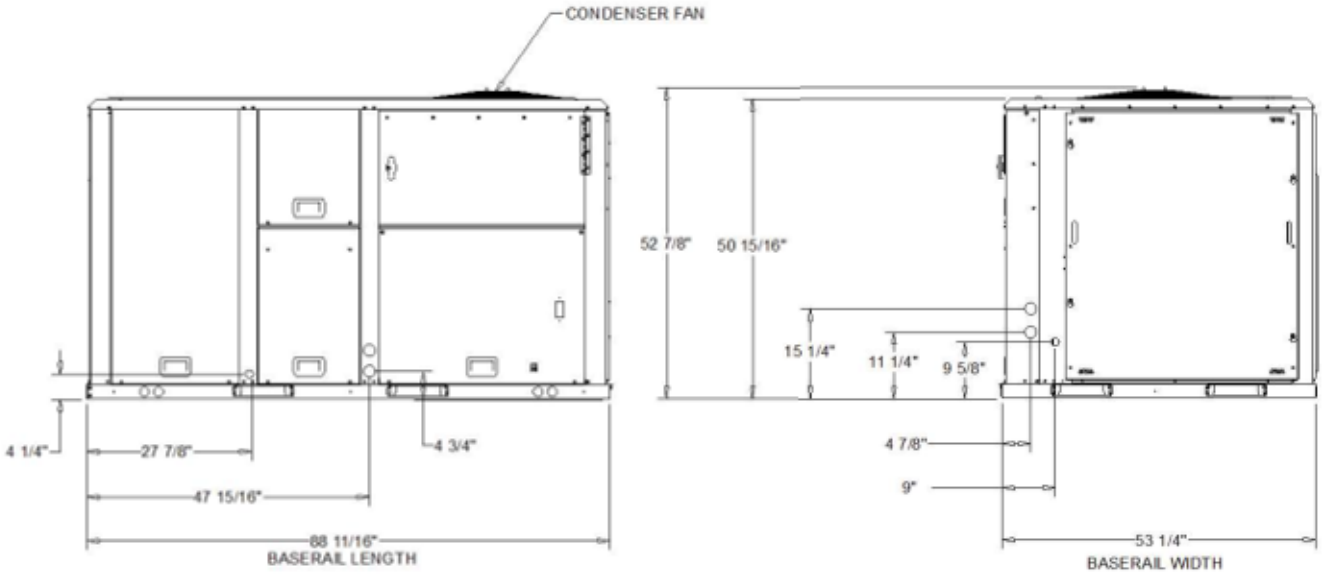
Note:Ducted Discharge/Ducted Inlet prediction data conform to AHRI 260

American Standard
HEATING & AIR CONDITIONING

Job Name: SNC
Prepared For:
Unit Tag: PREC-2
Quantity: 1

NOTES:
1. VERIFY WEIGHTS, CONNECTIONS, AND ALL DIMENSIONS WITH INSTALLER DOCUMENTS BEFORE INSTALLATION



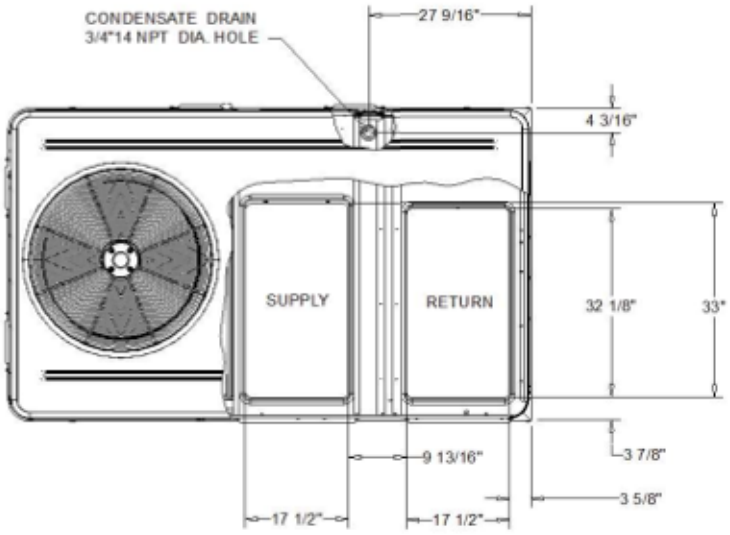


DX COOLING / GAS HEAT STANDARD EFFICIENCY

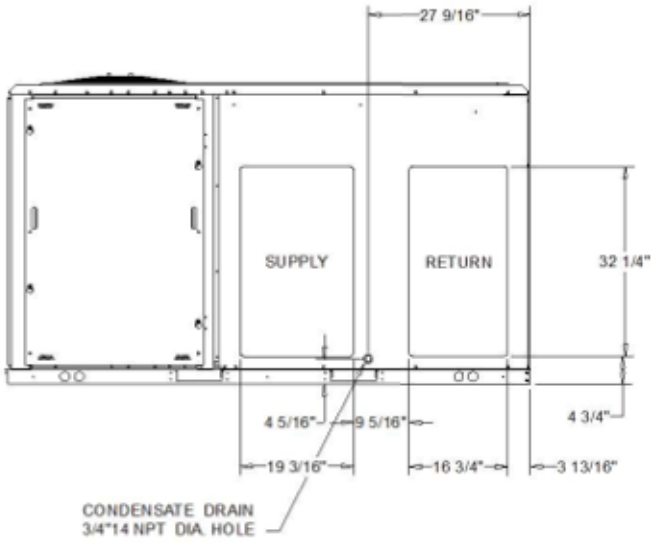
DIMENSION DRAWING

American Standard
HEATING & AIR CONDITIONING

Job Name: SNC
Prepared For:
Unit Tag: PREC-2
Quantity: 1



PLAN VIEW OF DOWNFLOW OPENINGS



HORIZONTAL AIR FLOW OPENING

DX COOLING / GAS HEAT STANDARD EFFICIENCY

DIMENSION DRAWING

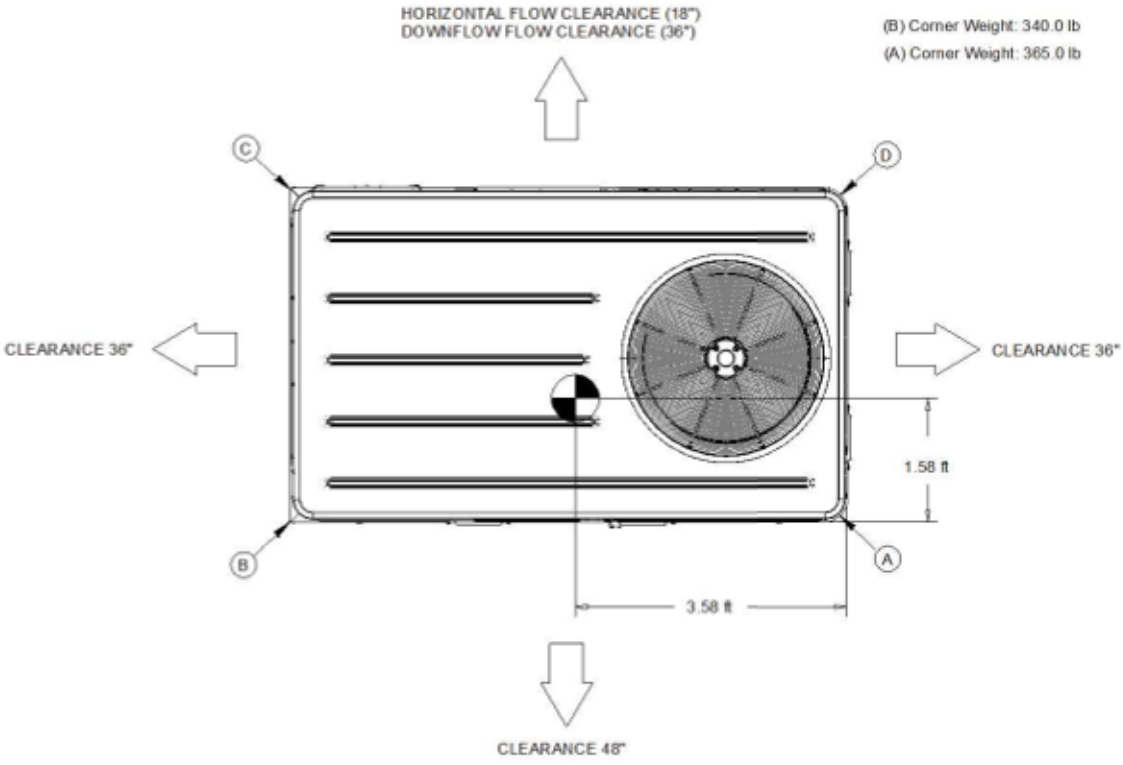
American Standard
HEATING & AIR CONDITIONING

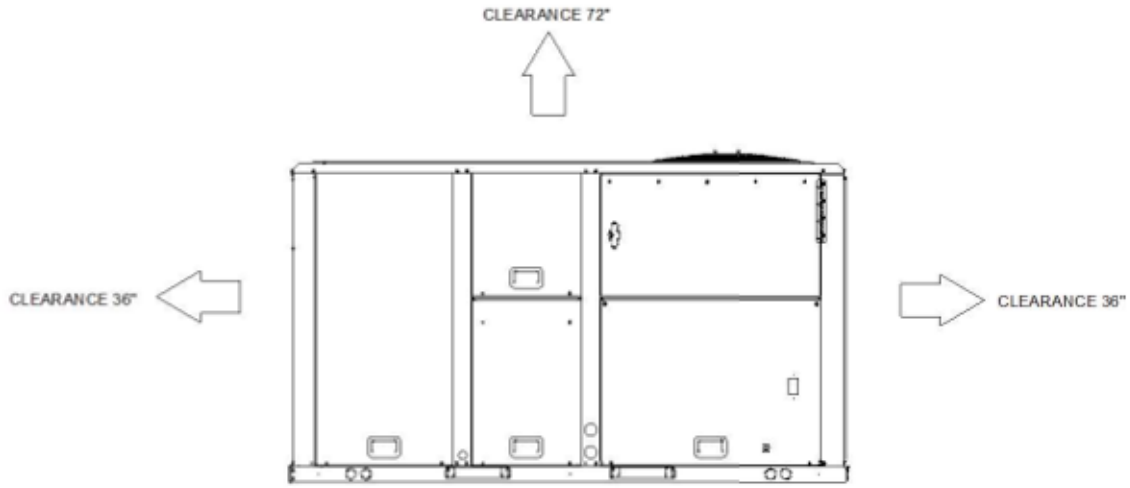
Job Name: SNC
Prepared For:
Unit Tag: PREC-2
Quantity: 1

NOTES:
1. APPROX. INSTALLED WEIGHT INCLUDES ALL SELECTED OPTIONS AND ACCESSORIES.
2. CORNER WEIGHTS ARE FOR BASE UNIT ONLY AND DO NOT INCLUDE OPTIONS OR ACCESSORIES.
3. WEIGHT INCLUDES BOTH FACTORY AND FIELD INSTALLED ACCESSORY.

Approximate Installed Weight: 1,058.0 lb

(B) Corner Weight: 340.0 lb
(C) Corner Weight: 196.0 lb
(A) Corner Weight: 365.0 lb
(D) Corner Weight: 210.0 lb



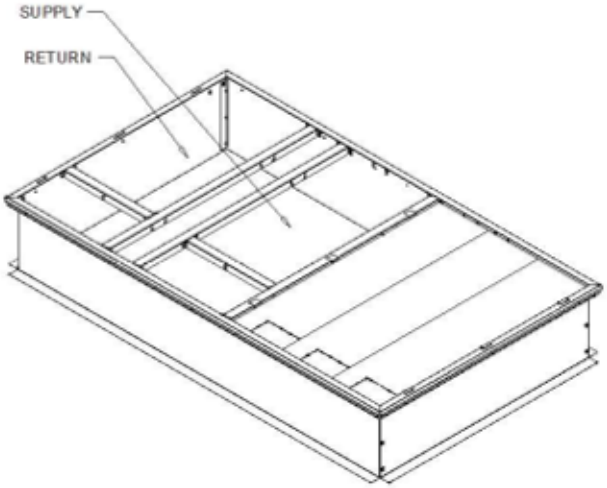


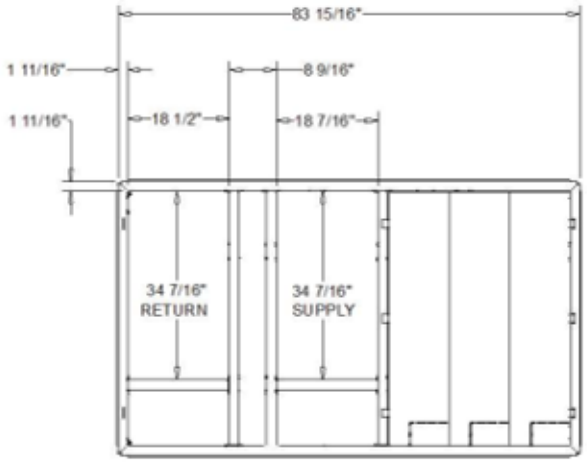
DX COOLING / GAS HEAT STANDARD EFFICIENCY

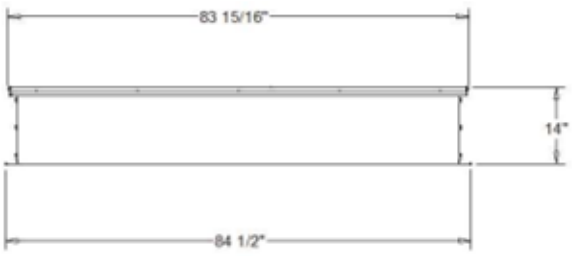
WEIGHTS AND CLEARANCES

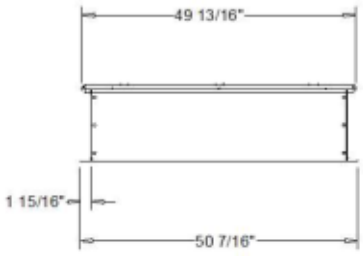
American Standard
HEATING & AIR CONDITIONING

Job Name: SNC
Prepared For:
Unit Tag: PREC-2
Quantity: 1



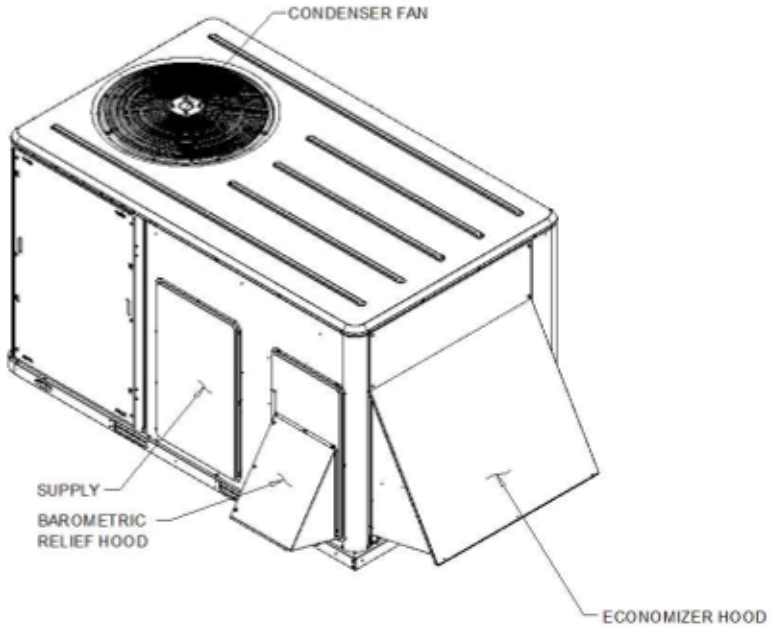


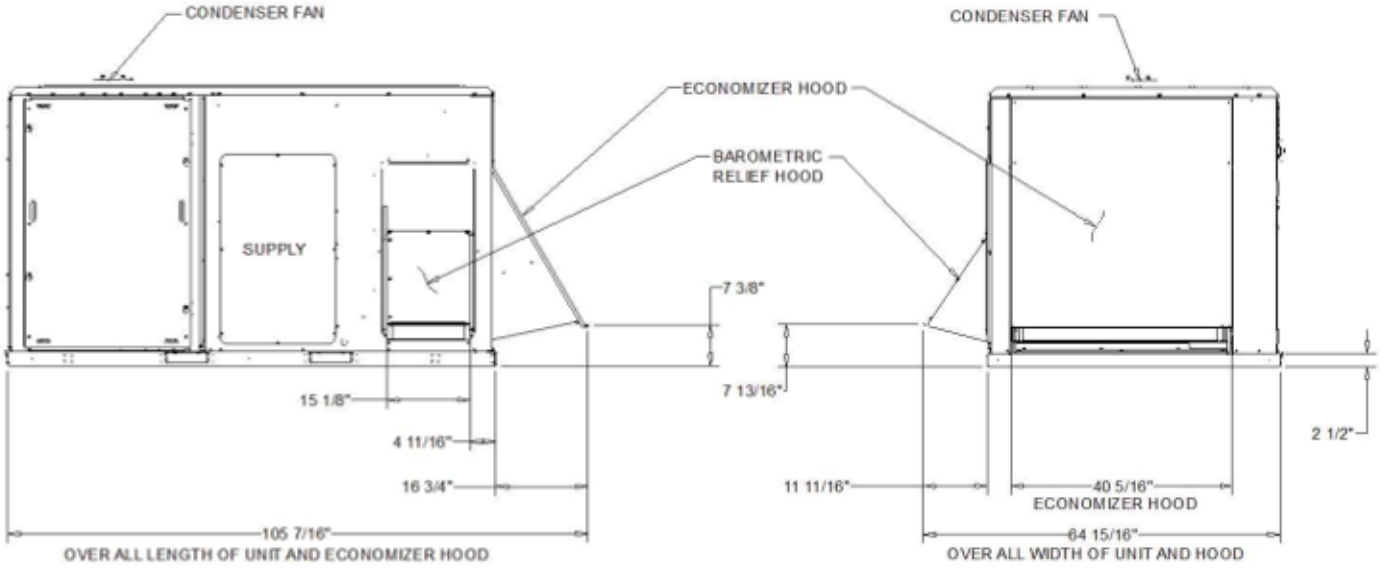




ROOF CURB (FIELD ACCESSORY)

DX COOLING / GAS HEAT STANDARD EFFICIENCY





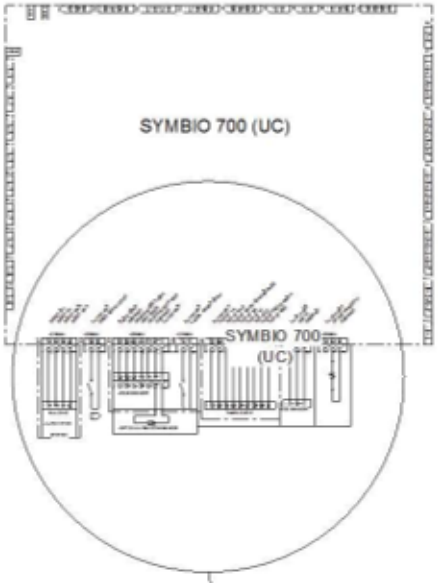
ECONOMIZER AND BAROMETIC AIR DAMPER(S) (FIELD ACCESSORY)

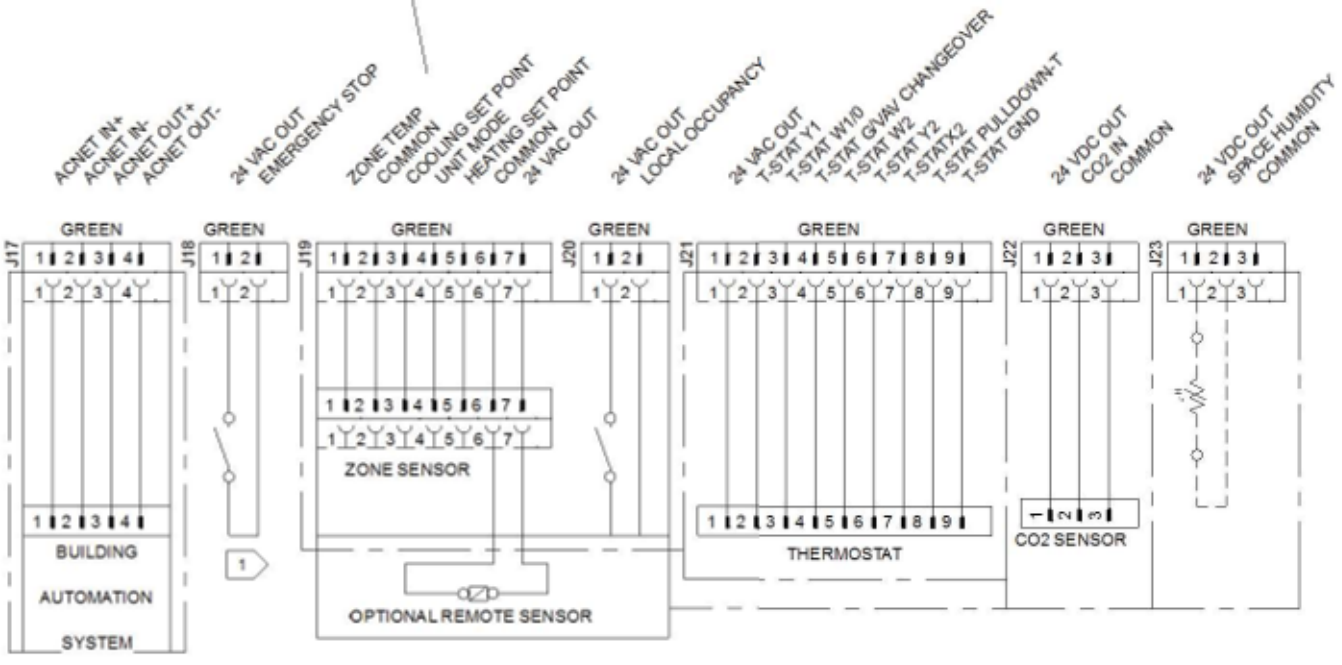
DX COOLING / GAS HEAT STANDARD EFFICIENCY

American Standard
HEATING & AIR CONDITIONING

Job Name: SNC
Prepared For:
Unit Tag: PREC-2
Quantity: 1

NOTES:
1. VERIFY WEIGHT, CONNECTION, AND ALL DIMENSION WITH INSTALLER DOCUMENTS BEFORE INSTALLATION

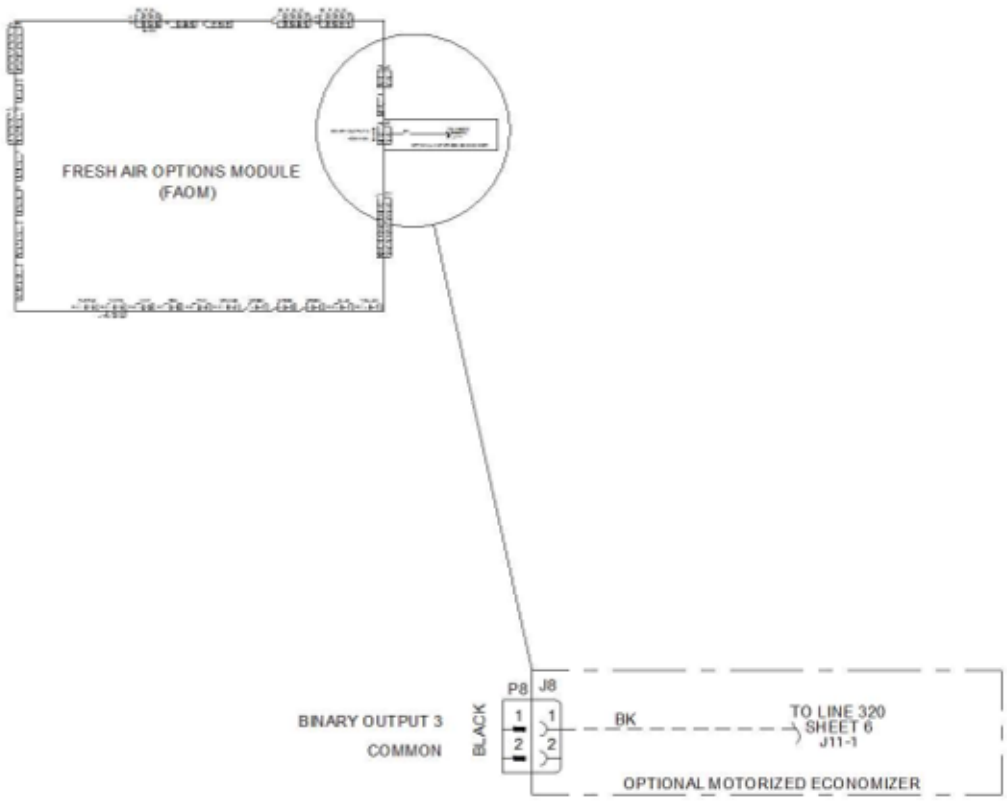




SYMBIO 700 (J17, j18, J19, J20, J21, J22, AND J23)

FIELD WIRING DRAWING

NOTES:
1. VERIFY WEIGHT, CONNECTION, AND ALL DIMENSION WITH INSTALLER DOCUMENTS BEFORE INSTALLATION



OPTIONAL MOTORIZED ECONOMIZER (J8)

FIELD WIRING DRAWING (INDOOR OPTION MODULE)

General
- Packaged rooftop units cooling, heating capacities, and efficiencies are AHRI Certified within scope of AHRI Standard 210-240 for 6 to 25 Tons and ANSIZ21.47 and 10 CFR Part 431 pertaining to Commercial Warm Air Furnaces (all gas heating units).
- Convertible airflow.
- Symbio controls operating range is from 0-125.0 F from factory; if designing for cooling mode operation below 40.0 F ambient temp, add low ambient kit to assure continuous and reliable operation.- Factory assembled, internally wired, fully charged with R-410A, and 100 percent run tested to check cooling operation, fan and blower rotation, and control sequence before leaving the factory.
- Colored and numbered wiring internal to the unit for simplified identification.
- Units cULus listed and labeled, classified in accordance for Central Cooling Air Conditioners.

Casing
- Zinc coated, heavy gauge, galvanized steel.
- Weather resistant pre-painted metal with galvanized substrate.
- Meets ASTM B117, 672 hour salt spray test.
- Removable single side maintenance access panels.
- Lifting handles in maintenance access panels (can be removed and reinstalled by removing fasteners while providing a water and air tight seal).
- Exposed vertical panels and top covers in the indoor air section insulated with a cleanable foil-faced, fire-retardant permanent, odorless glass fiber material.
- Base pan shall have no penetrations within the perimeter of the curb other than the raised 1 inch high downflow supply/return openings to provide an added water integrity precaution, if the condensate drain backs up.
- Base of the unit insulated with 1/8 inch, foil-faced, closed-cell insulation.
- Unit base provisions for forklift and/or crane lifting on three sides of unit.

Hail Guards
- Provides condenser coil protection.

Microchannel Coils
- Optimal heat transfer performance due to flat, streamlined tubes with small ports, and metallurgical tube-to-fin bond.
- Reduce system refrigerant charge by up to 50% leading to better compressor reliability.
- Compact all-aluminum microchannel coils reduce the unit weight.
- Recyclable all aluminum coils All aluminium construction minimizes galvanic corrosion.
- Strong aluminum brazed structure provides better fin protection.
- Flat streamlined tubes more dust resistant and easy to clean.
- Coils leak tested at the factory to ensure the pressure integrity.

Compressors
- All units have direct-drive, hermetic, scroll type compressors with centrifugal type oil pumps.
- Suction gas-cooled motor with voltage utilization range of plus or minus 10 percent of unit nameplate voltage.
- Internal overloads standard with scroll compressors.
- All units have dual compressors.
-Three stages of cooling available on 6 to 17.5 tons units and four stages of cooling available on 20 and 25 tons units.

Filters
-Two inch standard filters shall be factory supplied on all units.

Frostat
- Utilized as a safety device.
- Opens to prevent freezing temperatures on evaporator coil.
- Temperature will need to rise to 50°F before closing.
- Utilized in low airflow or high outside air applications (cooling only).

Gas Heating Section
-The heating section shall have a progressive tubular heat exchanger with corrosion-resistant aluminized steel tubes and burners as standard on all models.
-Stainless steel heat exchanger with 409 stainless steel tubes and 439 stainless steel burners shall be optional.
- Induced draft combustion blower shall be used to pull the combustion products through the firing tubes.
- Heater shall use a direct spark ignition (DSI) system.
- On initial call for heat, the combustion blower shall purge the heat exchanger for 20 seconds before ignition.
- After three unsuccessful ignition attempts, entire heating system shall be locked out until manually reset at the thermostat/zone sensor.
- Units shall be suitable for use with natural gas or propane (field-installed kit).

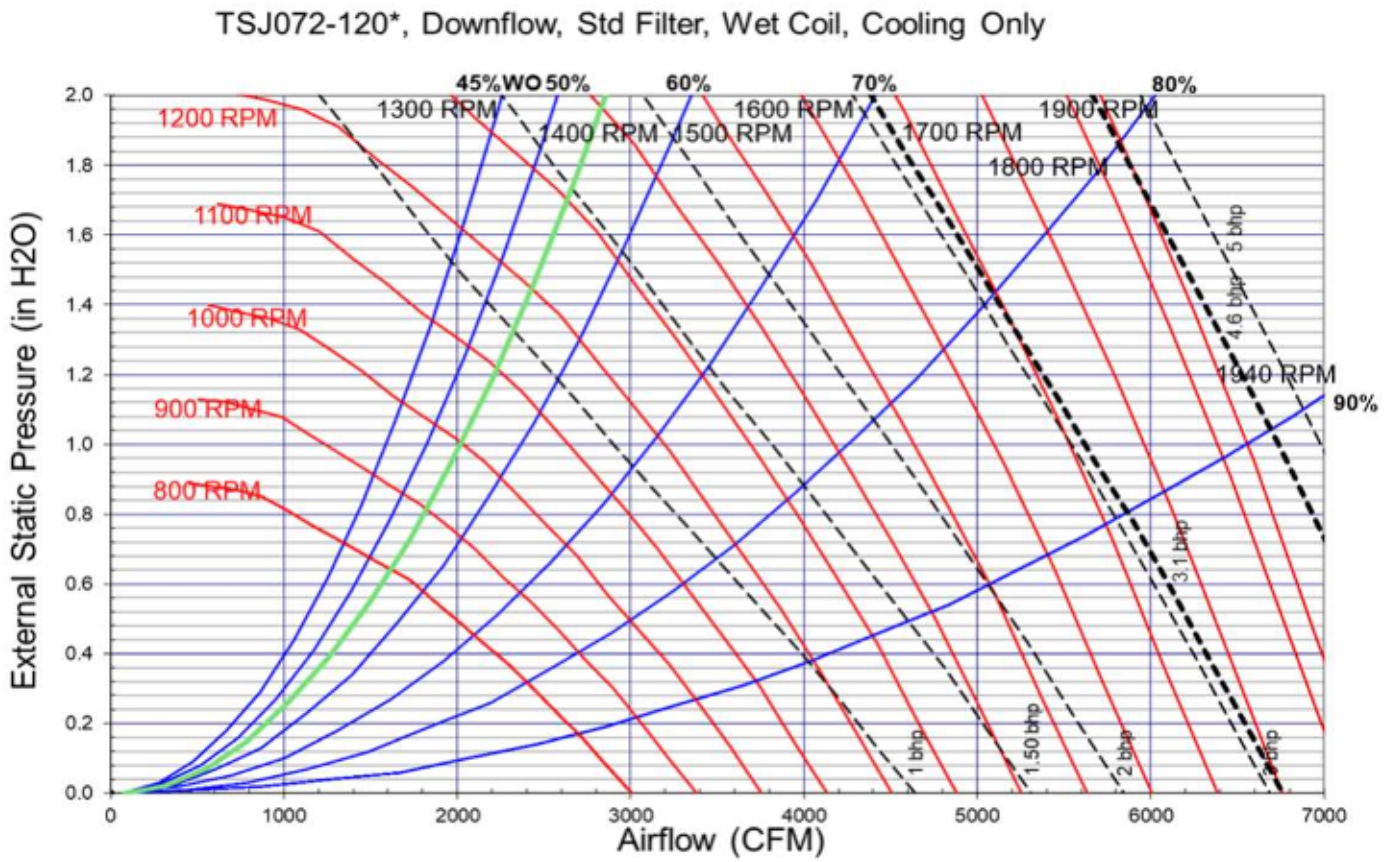
Indoor Fan
- Direct drive plenum fan design - 6 to 25 tons units.
- Plenum fan design - backward-curved fan wheel along with an external rotor direct drive variable speed indoor motor.
- Supply fan speed adjustments can be made using the Symbio 700 or Mobile App.
- Motors are thermally protected.
- Variable speed direct drive motors are high efficiency - 6 to 25 tons.

Heat Exchanger
- Compact cabinet features a tubular heat exchanger in low, medium and high heat capacities.
- Corrosion-resistant aluminized steel tubes and burners are standard on all models.
- Induced draft blower to pull the gas mixture through the burner tubes.
- Direct spark ignition and a flame sensor as a safety device to validate the flame.

Roof Curb
- Designed to mate with the unit?s downflow supply and return.
- Provide support and a water tight installation when installed properly.
- Shall allow field-fabricated rectangular supply/return ductwork to be connected directly to the curb.
- Curb shall be shipped knocked down for field assembly.
- Shall include wood nailer strips.

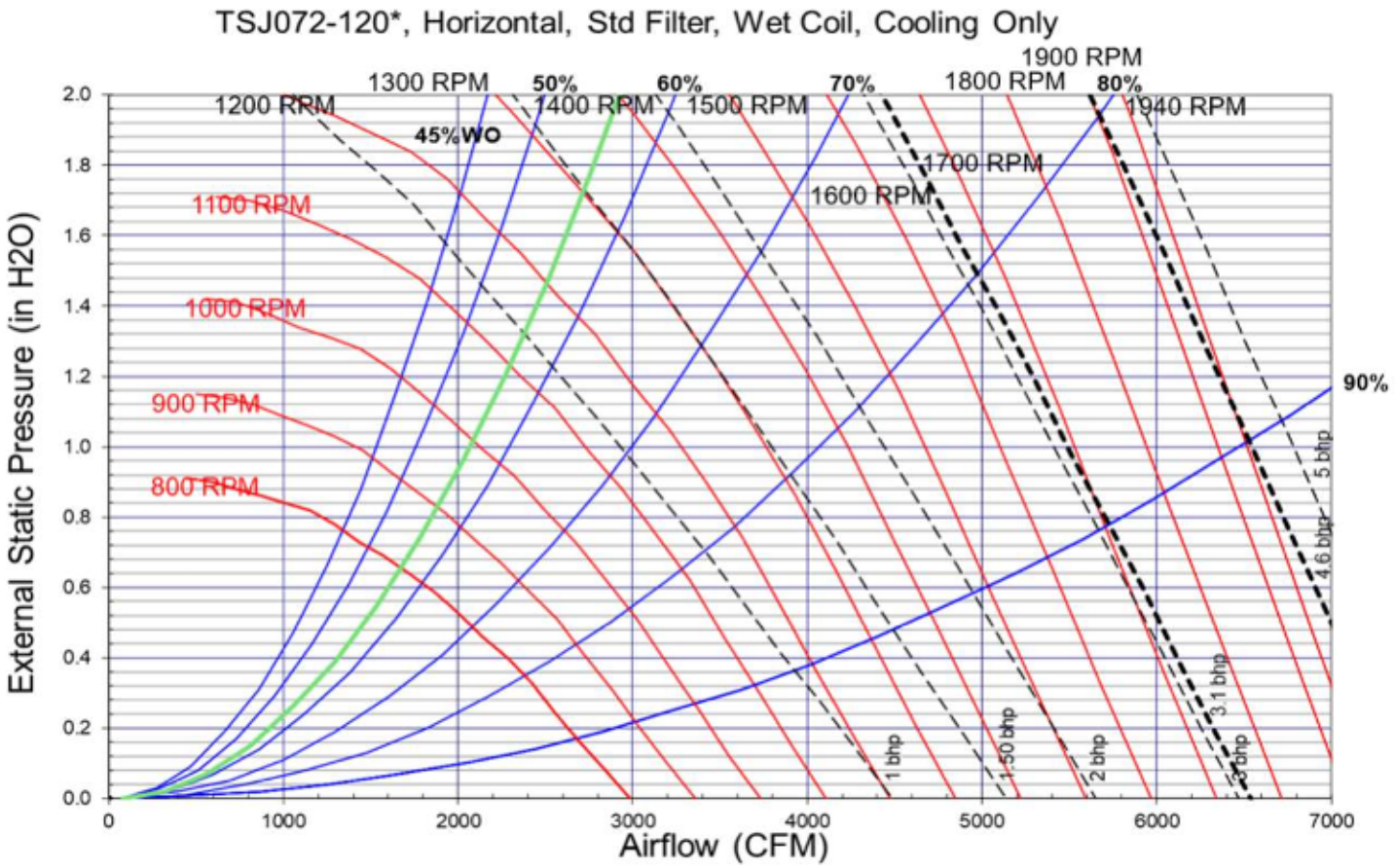
Economizer (Standard)
- Available with or without barometric relief.
- Fully modulating 0-100 percent motor and dampers, minimum position setting, preset linkage, wiring harness with plug, spring return actuator and fixed dry bulb control.
- Barometric relief shall provide a pressure operated damper that shall be gravity closing.
- Barometric relief shall prohibit entrance of outside air during the equipment ?off? cycle.
- Optional solid state or differential enthalpy control.
- Arrives in shipping position and shall be moved to the operating position by the installing contractor.

Heatpump - Economizer (Standard)
- Available with or without barometric relief.
- Fully modulating 0-100 percent motor and dampers, minimum position setting, preset linkage, wiring harness with plug, spring return actuator and fixed dry bulb control.
- Barometric relief shall provide a pressure operated damper that shall be gravity closing.
- Barometric relief shall prohibit entrance of outside air during the equipment ?off? cycle.
- Optional solid state or differential enthalpy control.
- Arrives in shipping position and shall be moved to the operating position by the installing contractor.



Note: Fan Curves are for TSJ/WSJ units. For YSJ units, add additional static pressure for Gas Heat Exchanger (ref. RT-PRC098*, table 47)

Saved to L: Drive



Note: Fan Curves are for TSJ/WSJ units. For YSJ units, add additional static pressure for Gas Heat Exchanger (ref. RT-PRC098*, table 47)

American Standard
HEATING & AIR CONDITIONING

Job Name: SNC
Prepared For:
Unit Tag: PREC-4
Quantity: 1

Precedent Packaged Rooftop RTU-2 YSJ180A4S0H

Unit Overview - YSJ180A4S0H**0000000000000000000000000

Application	Unit Size	Supply Fan		External Dimensions (in.)			Operating Weight	Elevation
		Airflow	Total Static Pressure	Height	Width	Length		
DX Cooling / Gas Heat	15 Ton	6000. cfm	1.201 in H2O	4.92 ft	7.25 ft	10.25 ft	2211.0 lb	0.00 ft

Unit Features

Unit Efficiency	Standard Efficiency
Refrigerant	R-410A
EER @ AHRI	10.80 Number
IEER @ AHRI	14.00 Number

Unit Electrical

Voltage/phase/hertz	460/60/3
MCA	41.00 A
MOP	50.00 A
Condenser Fan FLA	1.10 A
Evaporator Fan FLA	4.60 A
Compressor 1 RLA	16.70 A
Compressor 2 RLA	8.20 A
Compressor Power	12.86 kW
System Power	17.91 kW

Controls

Unit Controls	Symbio 700

Cooling Section

		Capacity	
Entering Dry Bulb	80.00 F	Gross Total	189.19 MBh
Entering Wet Bulb	67.00 F	Gross Latent	42.21 MBh
Ambient Temp	95.00 F	Gross Sensible	146.98 MBh
Leaving Coil Dry Bulb	57.16 F	Net Total	182.57 MBh
Leaving Coil Wet Bulb	56.85 F	Net Sensible	140.36 MBh
Leaving Unit Dry Bulb	58.65 F	Net Sensible Heat Ratio	76.88 %
Leaving Unit Wet Bulb	57.44 F	Fan Motor Heat	2.69 MBh
Saturated Discharge Temperature	121.43 F	Refrig Charge-Circuit 1	14.5 lb
Saturated Suction Temperature	51.19 F		

Heating Section

Heating	High Gas Heat
Input Heating Capacity	400.00 MBh
Output Heating Capacity	324.00 MBh
Heating EAT	75.00 F
Heating LAT	124.49 F
Heating Temp Rise	49.49 F

Fan Section

Indoor Fan Data		Indoor Fan Performance	
Airflow Application	Downflow	Airflow	6000. cfm
Design ESP	1.000 in H2O	Supply Motor Horsepower	3.000 hp
Component SP	0.201 in H2O	Total Supply Motor Operating Power	2.494 hp
Heat SP	0.000 in H2O	Indoor RPM	1239 rpm
Total SP	1.201 in H2O	**Outdoor Fan Data**	
Indoor Fan Drive Type	Variable Direct	Outdoor Fan Drive Type	Direct
Indoor Fan Quantity	2.00 Number	Outdoor Fan Quantity	2
Indoor Fan Type	BC Plenum	Outdoor Fan Type	Propeller
		Filters	
		1st Filter Size and Qty	8 - 20 x 24 x 2

Field Installed Accessories

Roof curb	14" Full Perimeter Knockdown Curb
Fresh Air Options Module	Fresh Air Option Module
Barometric relief	yes
Fresh air selection	0-100% Economizer, dry bulb control
Discharge air sensing tube	yes

Acoustics

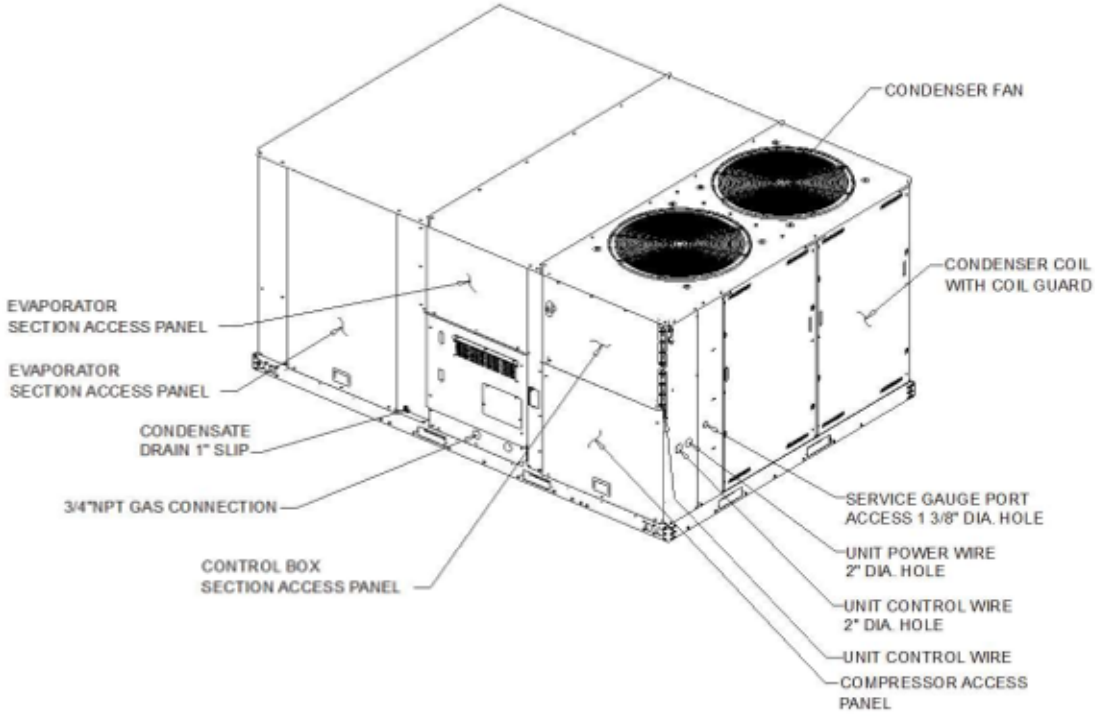
Sound Path	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Ducted Discharge	80. dB	91 dB	79 dB	69 dB	64 dB	61 dB	61 dB	59 dB
Ducted Inlet	78 dB	85 dB	70. dB	64 dB	60. dB	57 dB	57 dB	55 dB
Outdoor Noise	84 dB	88 dB	88 dB	85 dB	82 dB	77 dB	74 dB	69 dB

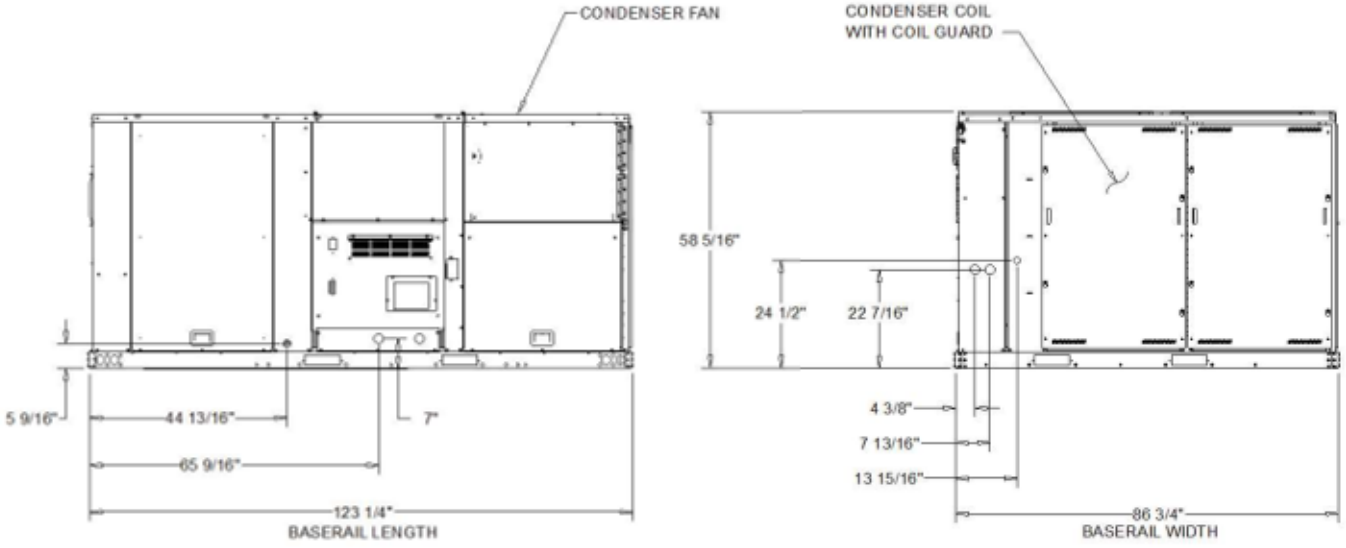
Note:Ducted Discharge/Ducted Inlet prediction data conform to AHRI 260

American Standard
HEATING & AIR CONDITIONING

Job Name: SNC
Prepared For:
Unit Tag: PREC-4
Quantity: 1

NOTES:
1. THRU -THE -BASE ELECTRICAL IS NOT STANDARD ON ALL UNITS.
2. VERIFY WEIGHTS, CONNECTIONS, AND ALL DIMENSIONS WITH INSTALLER DOCUMENTS BEFORE INSTALLATION



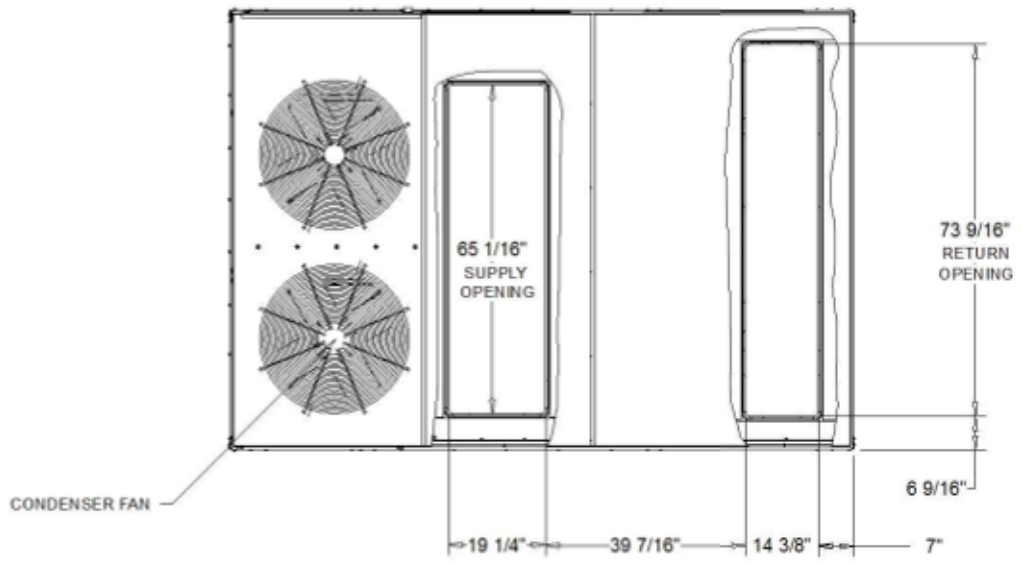


DX COOLING / GAS HEAT STANDARD EFFICIENCY

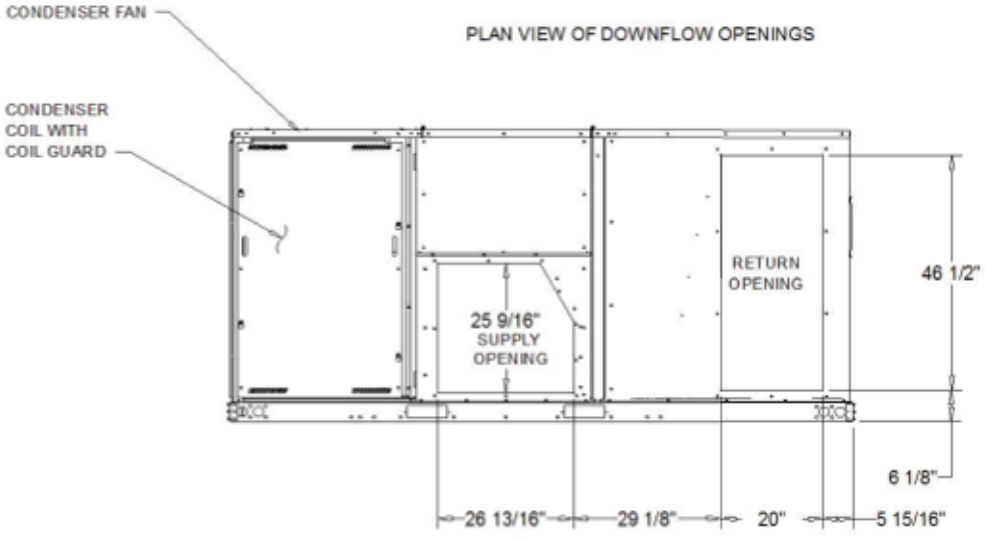
DIMENSION DRAWING

American Standard
HEATING & AIR CONDITIONING

Job Name: SNC
Prepared For:
Unit Tag: PREC-4
Quantity: 1



PLAN VIEW OF DOWNFLOW OPENINGS



HORIZONTAL AIR FLOW OPENING

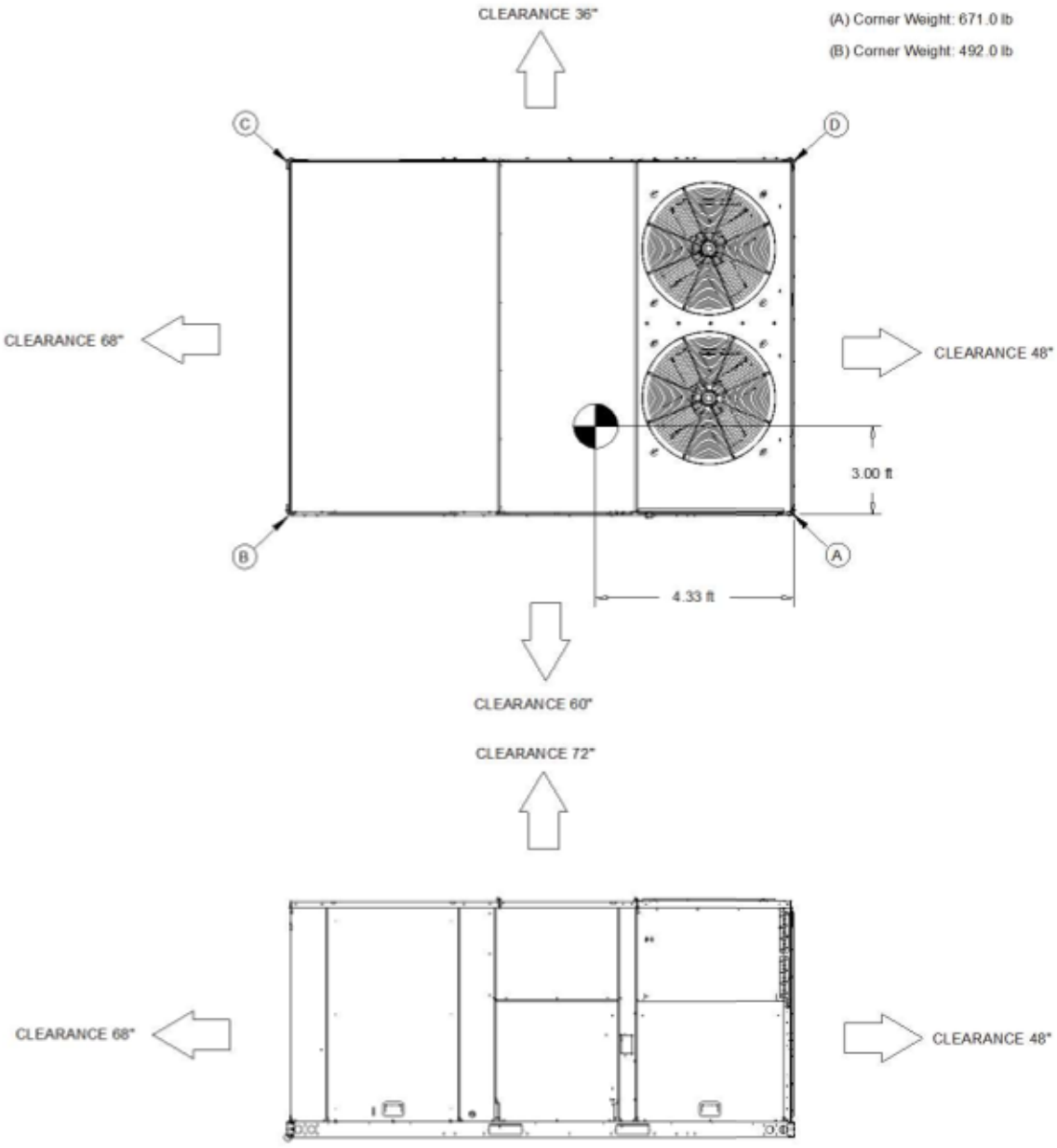
DX COOLING / GAS HEAT STANDARD EFFICIENCY

DIMENSION DRAWING

NOTES:
1. APPROX. INSTALLED WEIGHT INCLUDES ALL SELECTED OPTIONS AND ACCESSORIES.
2. CORNER WEIGHTS ARE FOR BASE UNIT ONLY AND DO NOT INCLUDE OPTIONS OR ACCESSORIES.
3. WEIGHT INCLUDES BOTH FACTORY AND FIELD INSTALLED ACCESSORY.

Approximate Installed Weight: 2,211.0 lb

(A) Corner Weight: 671.0 lb
(B) Corner Weight: 492.0 lb
(C) Corner Weight: 365.0 lb
(D) Corner Weight: 483.0 lb

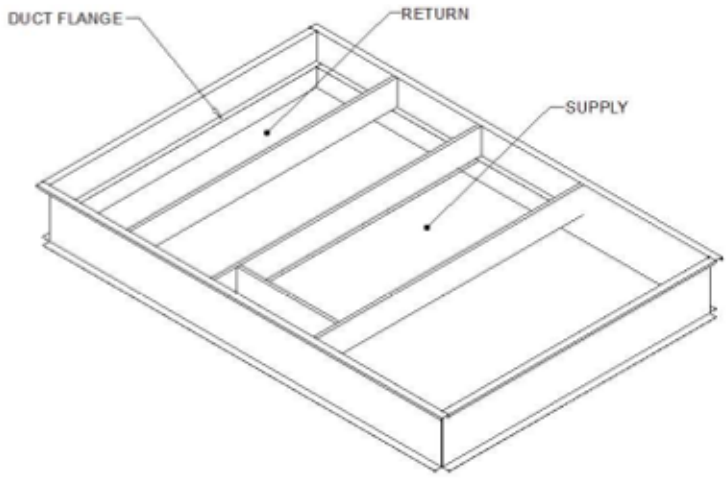


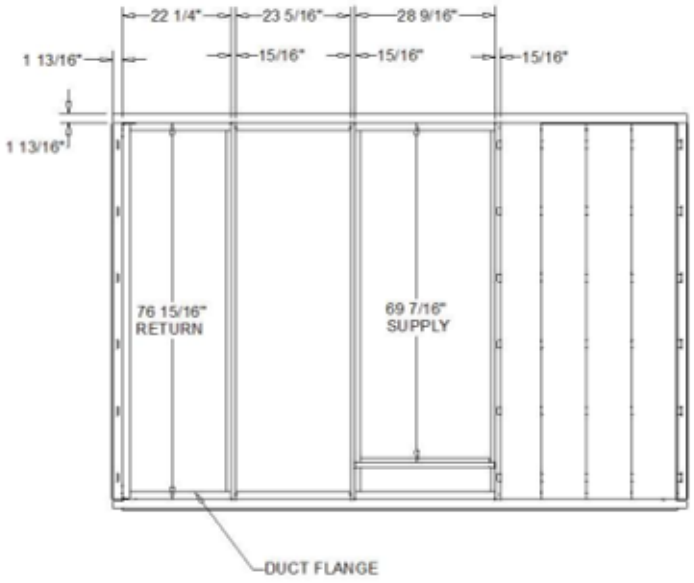
DX COOLING / GAS HEAT STANDARD EFFICIENCY

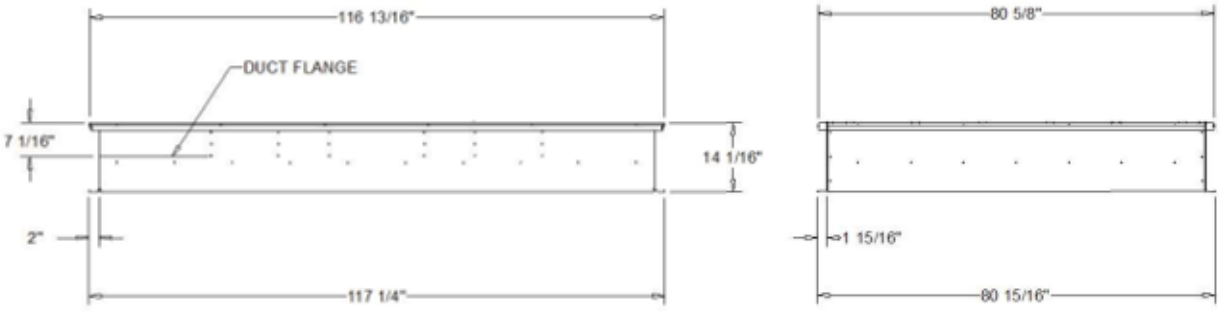
WEIGHTS AND CLEARANCES

American Standard
HEATING & AIR CONDITIONING

Job Name: SNC
Prepared For:
Unit Tag: PREC-4
Quantity: 1

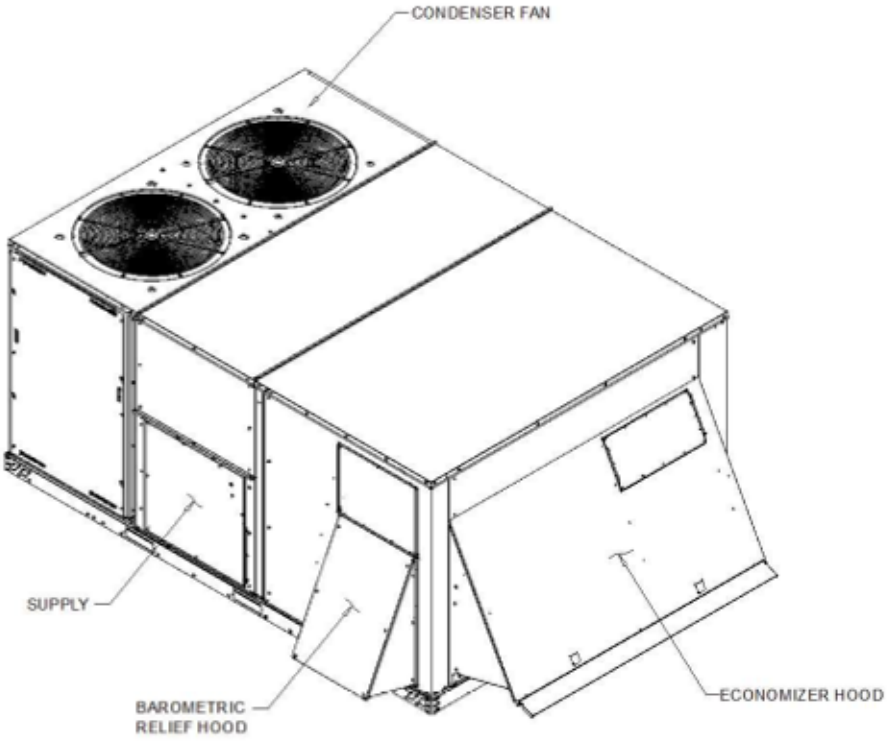


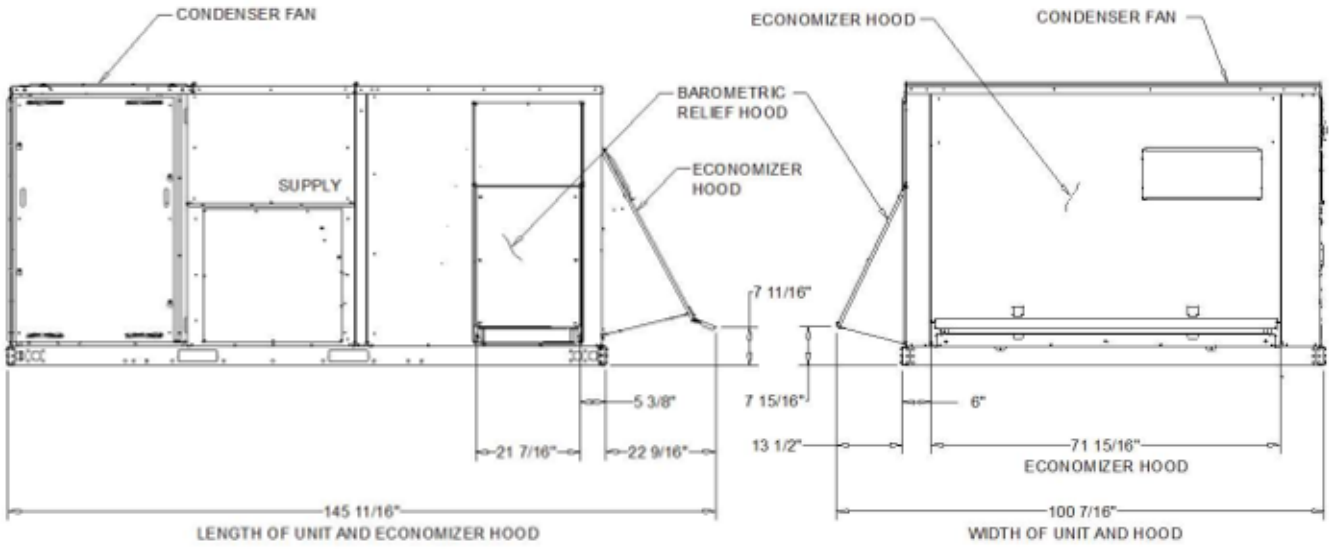




ROOF CURB (FIELD ACCESSORY)

DX COOLING / GAS HEAT STANDARD EFFICIENCY





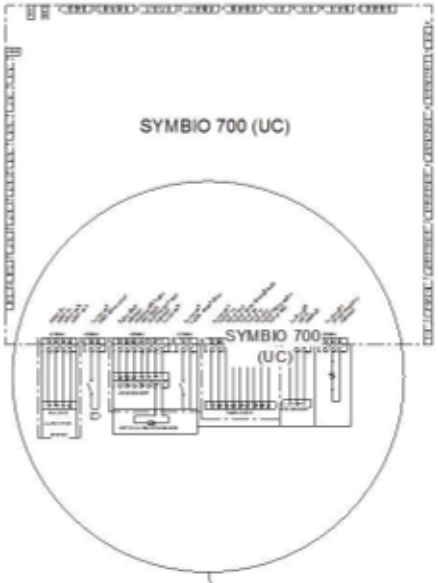
ECONOMIZER AND BAROMETIC AIR DAMPER(S) (FIELD ACCESSORY)

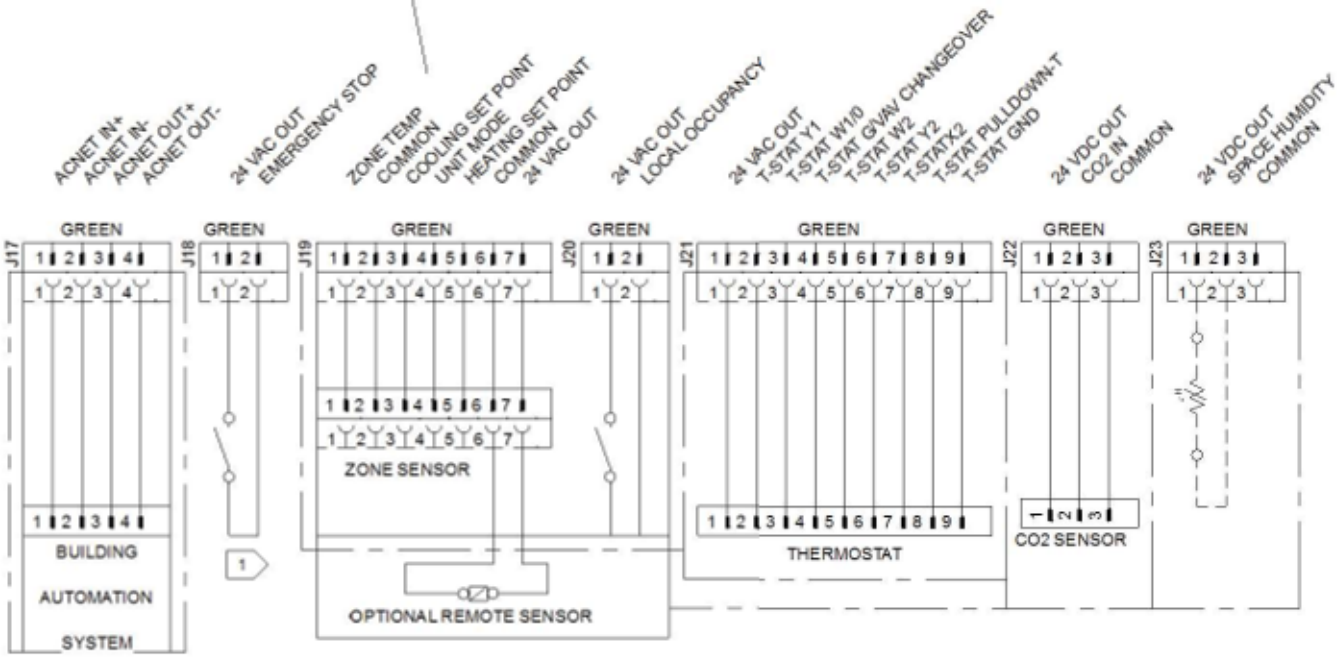
DX COOLING / GAS HEAT STANDARD EFFICIENCY

American Standard
HEATING & AIR CONDITIONING

Job Name: SNC
Prepared For:
Unit Tag: PREC-4
Quantity: 1

NOTES:
1. VERIFY WEIGHT, CONNECTION, AND ALL DIMENSION WITH INSTALLER DOCUMENTS BEFORE INSTALLATION





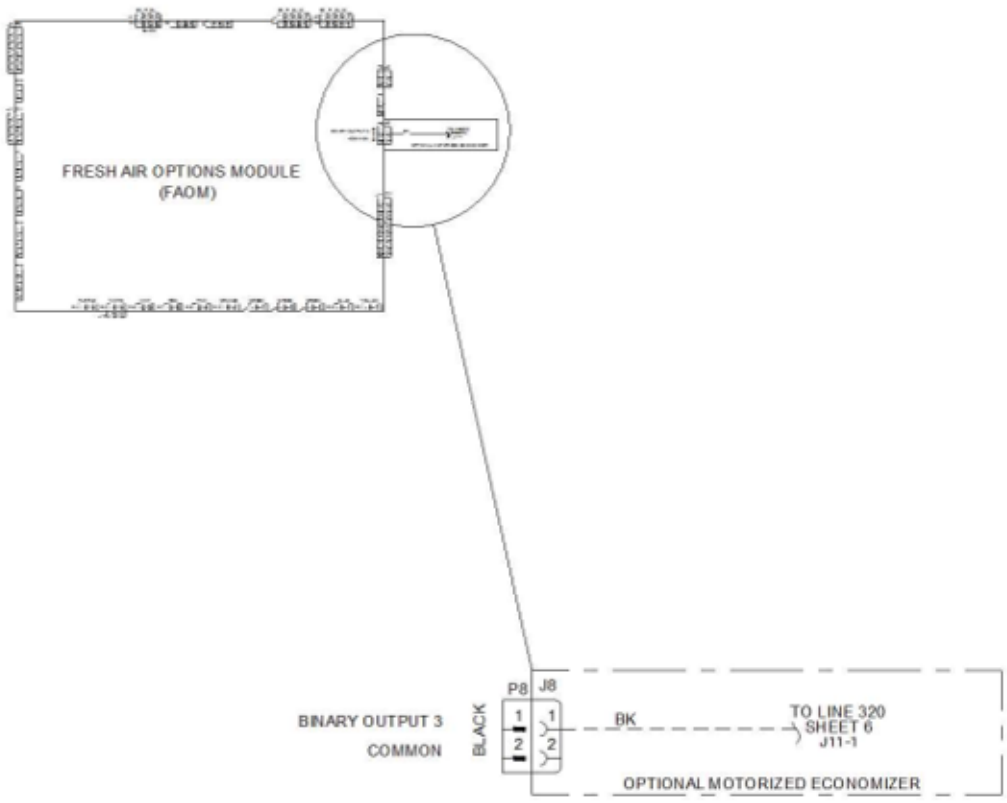
SYMBIO 700 (J17, j18, J19, J20, J21, J22, AND J23)

FIELD WIRING DRAWING

American Standard
HEATING & AIR CONDITIONING

Job Name: SNC
Prepared For:
Unit Tag: PREC-4
Quantity: 1

NOTES:
1. VERIFY WEIGHT, CONNECTION, AND ALL DIMENSION WITH INSTALLER DOCUMENTS BEFORE INSTALLATION



OPTIONAL MOTORIZED ECONOMIZER (J8)

FIELD WIRING DRAWING (INDOOR OPTION MODULE)

General
- Packaged rooftop units cooling, heating capacities, and efficiencies are AHRI Certified within scope of AHRI Standard 210-240 for 6 to 25 Tons and ANSIZ21.47 and 10 CFR Part 431 pertaining to Commercial Warm Air Furnaces (all gas heating units).
- Convertible airflow.
- Symbio controls operating range is from 0-125.0 F from factory; if designing for cooling mode operation below 40.0 F ambient temp, add low ambient kit to assure continuous and reliable operation.- Factory assembled, internally wired, fully charged with R-410A, and 100 percent run tested to check cooling operation, fan and blower rotation, and control sequence before leaving the factory.
- Colored and numbered wiring internal to the unit for simplified identification.
- Units cULus listed and labeled, classified in accordance for Central Cooling Air Conditioners.

Casing
- Zinc coated, heavy gauge, galvanized steel.
- Weather resistant pre-painted metal with galvanized substrate.
- Meets ASTM B117, 672 hour salt spray test.
- Removable single side maintenance access panels.
- Lifting handles in maintenance access panels (can be removed and reinstalled by removing fasteners while providing a water and air tight seal).
- Exposed vertical panels and top covers in the indoor air section insulated with a cleanable foil-faced, fire-retardant permanent, odorless glass fiber material.
- Base pan shall have no penetrations within the perimeter of the curb other than the raised 1 inch high downflow supply/return openings to provide an added water integrity precaution, if the condensate drain backs up.
- Base of the unit insulated with 1/8 inch, foil-faced, closed-cell insulation.
- Unit base provisions for forklift and/or crane lifting on three sides of unit.

Hail Guards
- Provides condenser coil protection.

Microchannel Coils
- Optimal heat transfer performance due to flat, streamlined tubes with small ports, and metallurgical tube-to-fin bond.
- Reduce system refrigerant charge by up to 50% leading to better compressor reliability.
- Compact all-aluminum microchannel coils reduce the unit weight.
- Recyclable all aluminum coils All aluminium construction minimizes galvanic corrosion.
- Strong aluminum brazed structure provides better fin protection.
- Flat streamlined tubes more dust resistant and easy to clean.
- Coils leak tested at the factory to ensure the pressure integrity.

Compressors
- All units have direct-drive, hermetic, scroll type compressors with centrifugal type oil pumps.
- Suction gas-cooled motor with voltage utilization range of plus or minus 10 percent of unit nameplate voltage.
- Internal overloads standard with scroll compressors.
- All units have dual compressors.
-Three stages of cooling available on 6 to 17.5 tons units and four stages of cooling available on 20 and 25 tons units.

Filters
-Two inch standard filters shall be factory supplied on all units.

Frostat
- Utilized as a safety device.
- Opens to prevent freezing temperatures on evaporator coil.
- Temperature will need to rise to 50°F before closing.
- Utilized in low airflow or high outside air applications (cooling only).

Gas Heating Section
-The heating section shall have a progressive tubular heat exchanger with corrosion-resistant aluminized steel tubes and burners as standard on all models.
-Stainless steel heat exchanger with 409 stainless steel tubes and 439 stainless steel burners shall be optional.
- Induced draft combustion blower shall be used to pull the combustion products through the firing tubes.
- Heater shall use a direct spark ignition (DSI) system.
- On initial call for heat, the combustion blower shall purge the heat exchanger for 20 seconds before ignition.
- After three unsuccessful ignition attempts, entire heating system shall be locked out until manually reset at the thermostat/zone sensor.
- Units shall be suitable for use with natural gas or propane (field-installed kit).

Indoor Fan
- Direct drive plenum fan design - 6 to 25 tons units.
- Plenum fan design - backward-curved fan wheel along with an external rotor direct drive variable speed indoor motor.
- Supply fan speed adjustments can be made using the Symbio 700 or Mobile App.
- Motors are thermally protected.
- Variable speed direct drive motors are high efficiency - 6 to 25 tons.

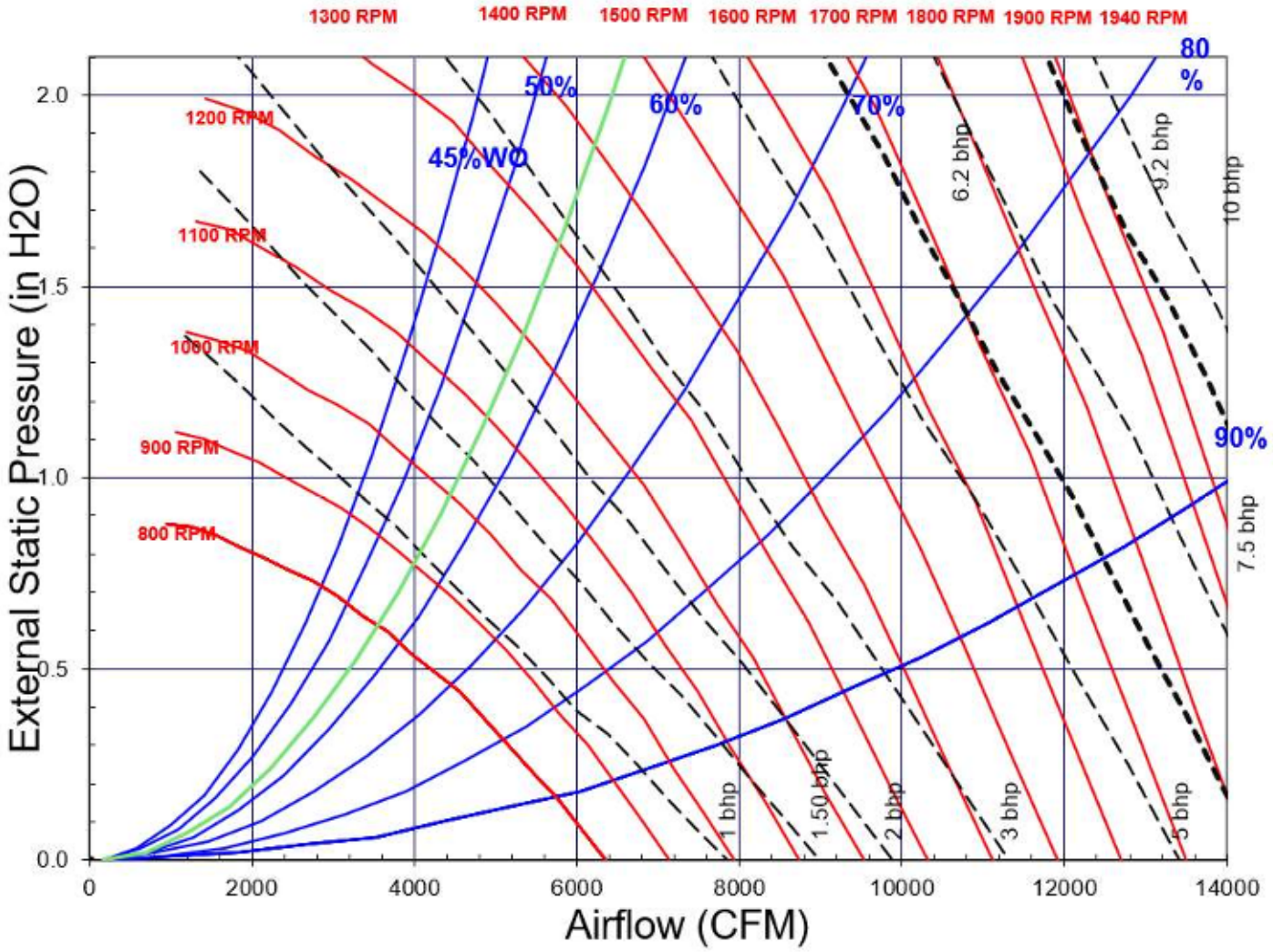
Heat Exchanger
- Compact cabinet features a tubular heat exchanger in low, medium and high heat capacities.
- Corrosion-resistant aluminized steel tubes and burners are standard on all models.
- Induced draft blower to pull the gas mixture through the burner tubes.
- Direct spark ignition and a flame sensor as a safety device to validate the flame.

Roof Curb
- Designed to mate with the unit?s downflow supply and return.
- Provide support and a water tight installation when installed properly.
- Shall allow field-fabricated rectangular supply/return ductwork to be connected directly to the curb.
- Curb shall be shipped knocked down for field assembly.
- Shall include wood nailer strips.

Economizer (Standard)
- Available with or without barometric relief.
- Fully modulating 0-100 percent motor and dampers, minimum position setting, preset linkage, wiring harness with plug, spring return actuator and fixed dry bulb control.
- Barometric relief shall provide a pressure operated damper that shall be gravity closing.
- Barometric relief shall prohibit entrance of outside air during the equipment ?off? cycle.
- Optional solid state or differential enthalpy control.
- Arrives in shipping position and shall be moved to the operating position by the installing contractor.

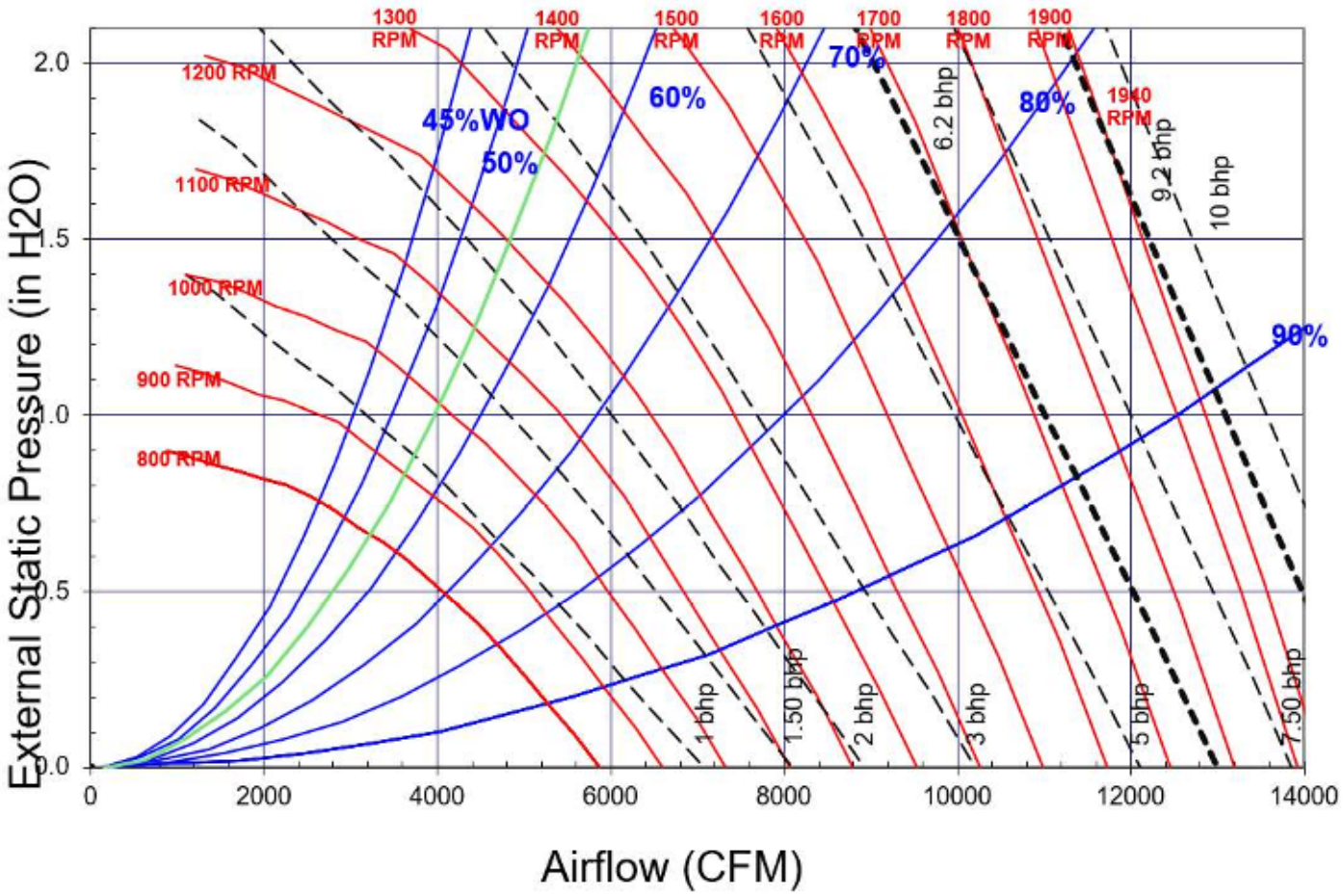
Heatpump - Economizer (Standard)
- Available with or without barometric relief.
- Fully modulating 0-100 percent motor and dampers, minimum position setting, preset linkage, wiring harness with plug, spring return actuator and fixed dry bulb control.
- Barometric relief shall provide a pressure operated damper that shall be gravity closing.
- Barometric relief shall prohibit entrance of outside air during the equipment ?off? cycle.
- Optional solid state or differential enthalpy control.
- Arrives in shipping position and shall be moved to the operating position by the installing contractor.

TSJ180-300*, Downflow, Std Filter, Wet Coil, Cooling Only



Note: Fan Curves are for TSJ/WSJ units. For YSJ units, add additional static pressure for Gas Heat Exchanger (ref. RT-PRC098*, table 47)

TSJ180-300*, Horizontal, Std Filter, Wet Coil, Cooling Only



Note: Fan Curves are for TSJ/WSJ units. For YSJ units, add additional static pressure for Gas Heat Exchanger (ref. RT-PRC098*, table 47)

American Standard
HEATING & AIR CONDITIONING

Job Name: SNC
Prepared For:
Unit Tag: PREC-1
Quantity: 1

Precedent Packaged Rooftop RTU-3 YSJ180A4S0L

Unit Overview - YSJ180A4S0L**00000000000000000000000000

Application	Unit Size	Supply Fan		External Dimensions (in.)			Operating Weight	Elevation
		Airflow	Total Static Pressure	Height	Width	Length		
DX Cooling / Gas Heat	15 Ton	6000. cfm	1.191 in H2O	4.92 ft	7.25 ft	10.25 ft	2157.0 lb	0.00 ft

Unit Features

Unit Efficiency	Standard Efficiency
Refrigerant	R-410A
EER @ AHRI	10.80 Number
IEER @ AHRI	14.00 Number

Unit Electrical

Voltage/phase/hertz	460/60/3
MCA	41.00 A
MOP	50.00 A
Condenser Fan FLA	1.10 A
Evaporator Fan FLA	4.60 A
Compressor 1 RLA	16.70 A
Compressor 2 RLA	8.20 A
Compressor Power	12.86 kW
System Power	17.91 kW

Controls

Unit Controls	Symbio 700

Cooling Section

		Capacity	
Entering Dry Bulb	80.00 F	Gross Total	189.19 MBh
Entering Wet Bulb	67.00 F	Gross Latent	42.21 MBh
Ambient Temp	95.00 F	Gross Sensible	146.98 MBh
Leaving Coil Dry Bulb	57.16 F	Net Total	182.57 MBh
Leaving Coil Wet Bulb	56.85 F	Net Sensible	140.36 MBh
Leaving Unit Dry Bulb	58.65 F	Net Sensible Heat Ratio	76.88 %
Leaving Unit Wet Bulb	57.44 F	Fan Motor Heat	2.69 MBh
Saturated Discharge Temperature	121.43 F	Refrig Charge-Circuit 1	14.5 lb
Saturated Suction Temperature	51.19 F		

Heating Section

Heating	Low Gas Heat
Input Heating Capacity	250.00 MBh
Output Heating Capacity	202.50 MBh
Heating EAT	75.00 F
Heating LAT	105.93 F
Heating Temp Rise	30.93 F

Fan Section

Indoor Fan Data	
Airflow Application	Downflow
Design ESP	1.000 in H2O
Component SP	0.201 in H2O
Heat SP	-0.010 in H2O
Total SP	1.191 in H2O
Indoor Fan Drive Type	Variable Direct
Indoor Fan Quantity	2.00 Number
Indoor Fan Type	BC Plenum

Indoor Fan Performance	
Airflow	6000. cfm
Supply Motor Horsepower	3.000 hp
Total Supply Motor Operating Power	2.478 hp
Indoor RPM	1236 rpm
Outdoor Fan Data	
Outdoor Fan Drive Type	Direct
Outdoor Fan Quantity	2
Outdoor Fan Type	Propeller
Filters	
1st Filter Size and Qty	8 - 20 x 24 x 2

Field Installed Accessories

Roof curb	14" Full Perimeter Knockdown Curb
Fresh Air Options Module	Fresh Air Option Module
Barometric relief	yes
Fresh air selection	0-100% Economizer, dry bulb control
Discharge air sensing tube	yes

Acoustics

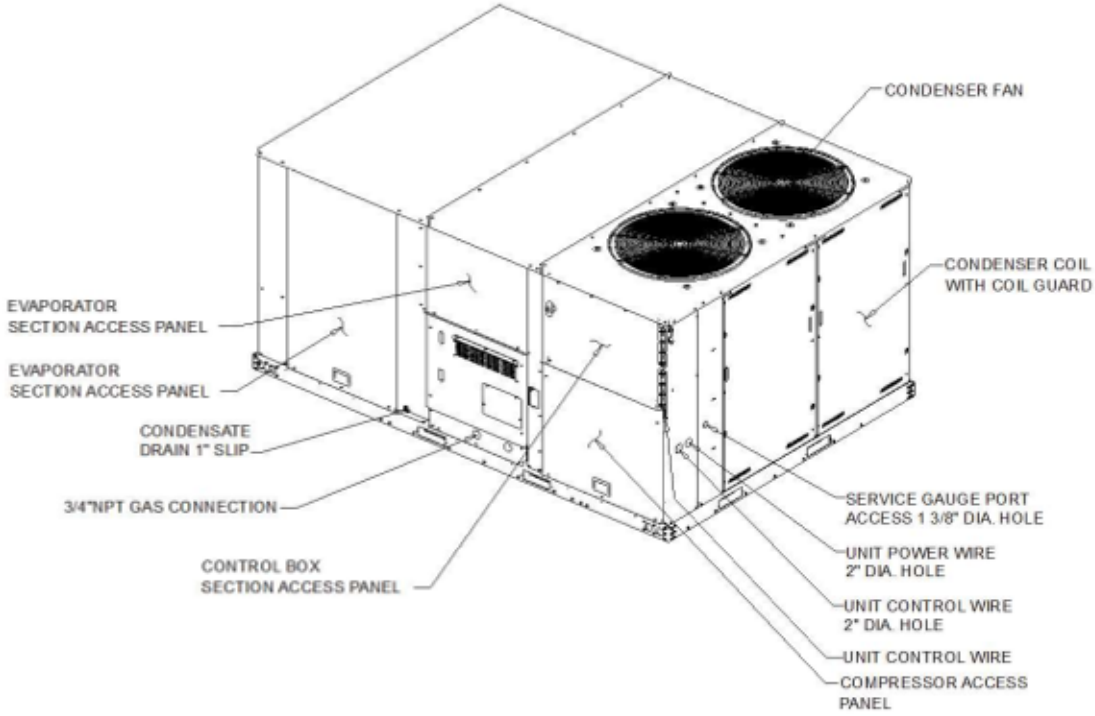
Sound Path	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Ducted Discharge	80. dB	91 dB	79 dB	69 dB	64 dB	61 dB	61 dB	59 dB
Ducted Inlet	78 dB	84 dB	70. dB	64 dB	60. dB	57 dB	57 dB	54 dB
Outdoor Noise	84 dB	88 dB	88 dB	85 dB	82 dB	77 dB	74 dB	69 dB

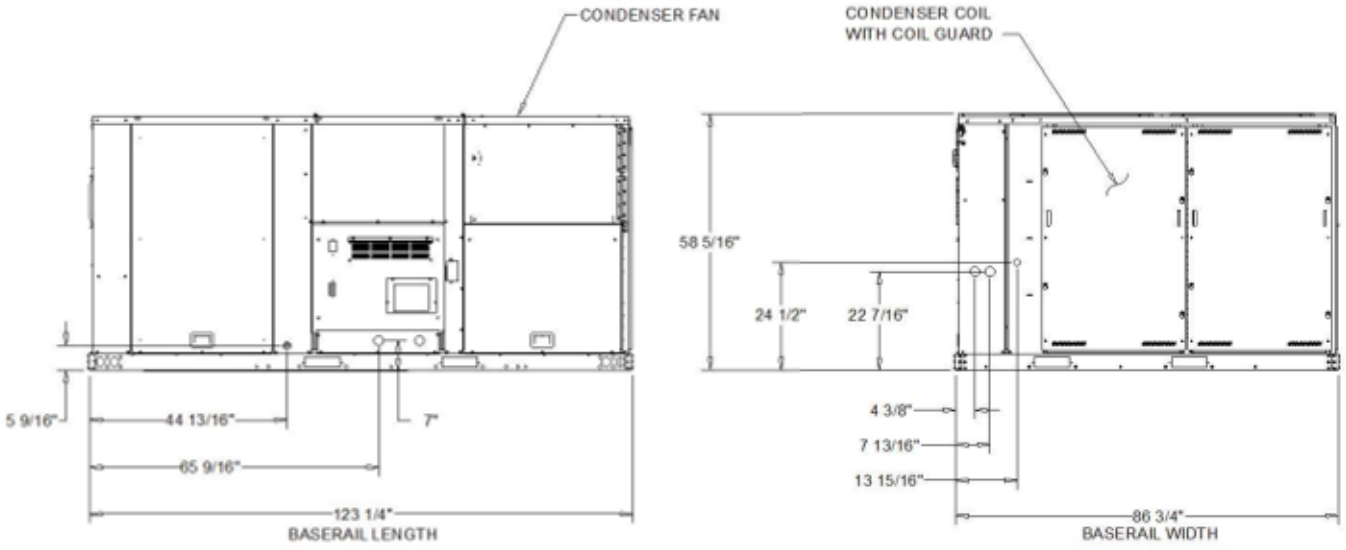
Note:Ducted Discharge/Ducted Inlet prediction data conform to AHRI 260

American Standard
HEATING & AIR CONDITIONING

Job Name: SNC
Prepared For:
Unit Tag: PREC-1
Quantity: 1

NOTES:
1. THRU -THE -BASE ELECTRICAL IS NOT STANDARD ON ALL UNITS.
2. VERIFY WEIGHTS, CONNECTIONS, AND ALL DIMENSIONS WITH INSTALLER DOCUMENTS BEFORE INSTALLATION



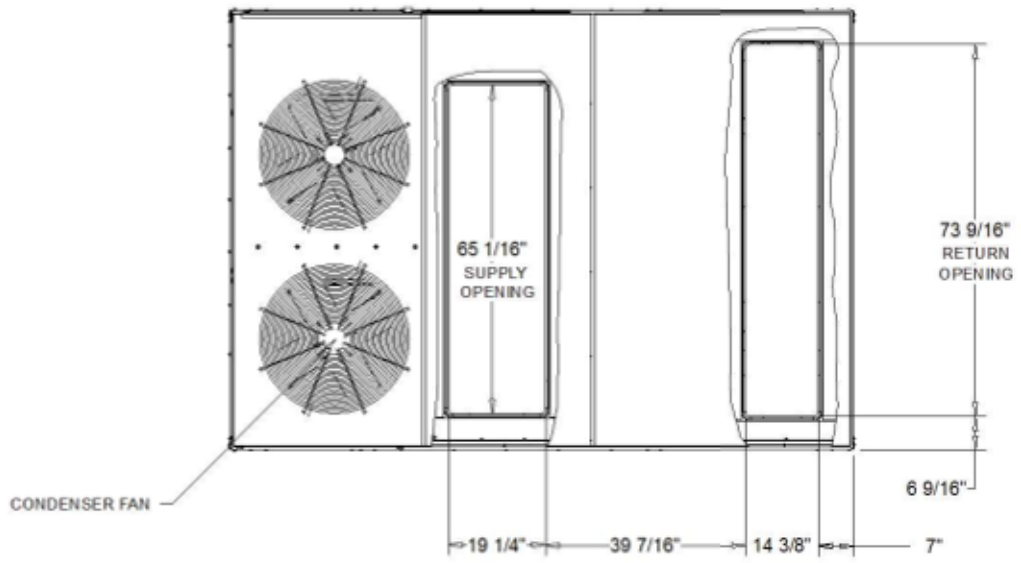


DX COOLING / GAS HEAT STANDARD EFFICIENCY

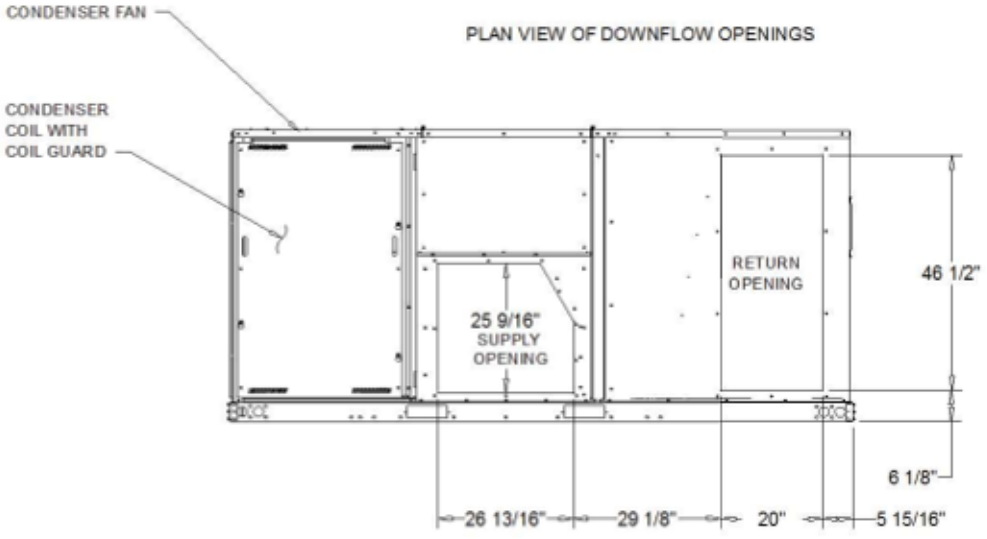
DIMENSION DRAWING

American Standard
HEATING & AIR CONDITIONING

Job Name: SNC
Prepared For:
Unit Tag: PREC-1
Quantity: 1



PLAN VIEW OF DOWNFLOW OPENINGS



HORIZONTAL AIR FLOW OPENING

DX COOLING / GAS HEAT STANDARD EFFICIENCY

DIMENSION DRAWING

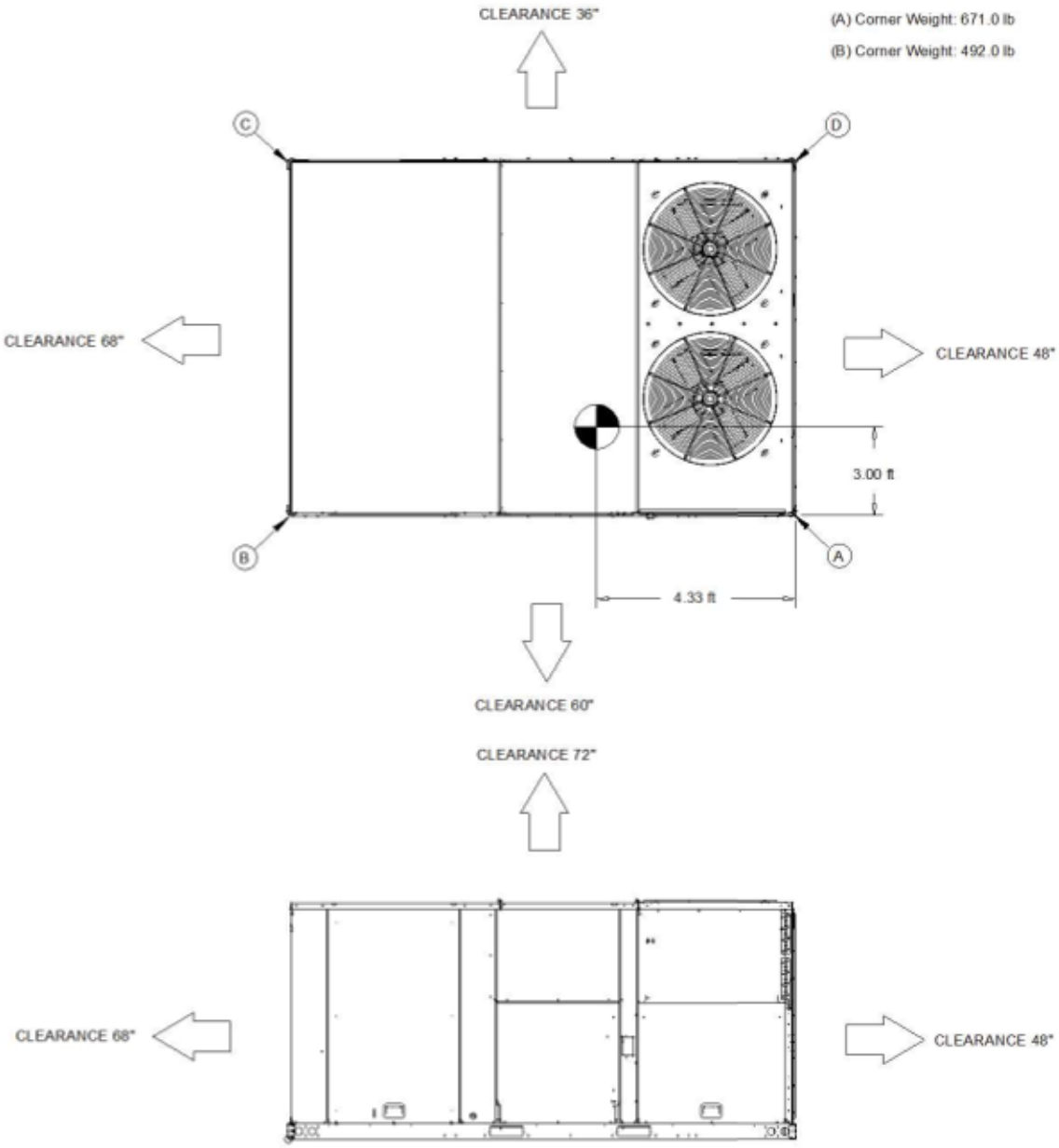
American Standard
HEATING & AIR CONDITIONING

Job Name: SNC
Prepared For:
Unit Tag: PREC-1
Quantity: 1

NOTES:
1. APPROX. INSTALLED WEIGHT INCLUDES ALL SELECTED OPTIONS AND ACCESSORIES.
2. CORNER WEIGHTS ARE FOR BASE UNIT ONLY AND DO NOT INCLUDE OPTIONS OR ACCESSORIES.
3. WEIGHT INCLUDES BOTH FACTORY AND FIELD INSTALLED ACCESSORY.

Approximate Installed Weight: 2,157.0 lb

(A) Corner Weight: 671.0 lb
(B) Corner Weight: 492.0 lb
(C) Corner Weight: 365.0 lb
(D) Corner Weight: 483.0 lb

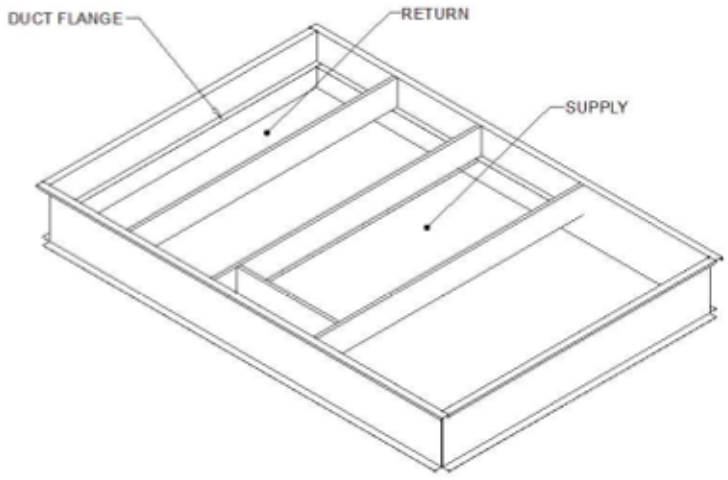


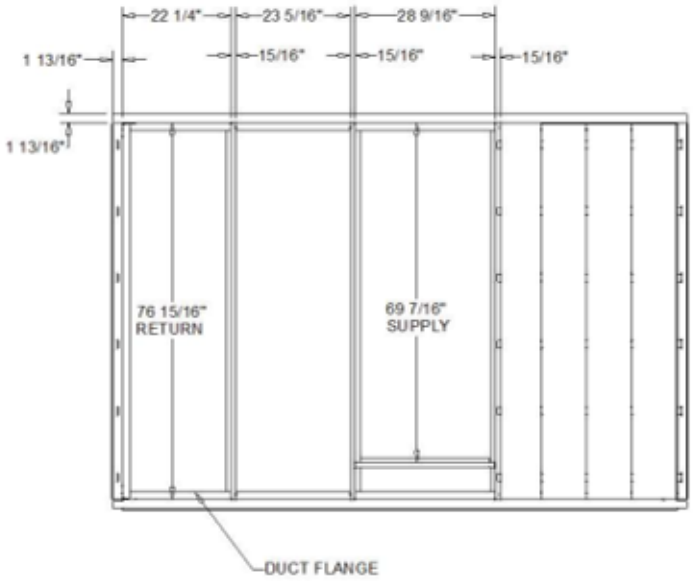
DX COOLING / GAS HEAT STANDARD EFFICIENCY

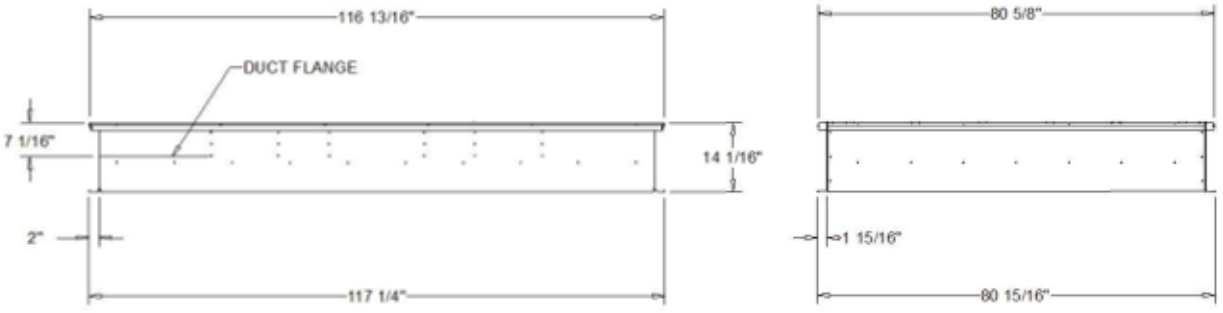
WEIGHTS AND CLEARANCES

American Standard
HEATING & AIR CONDITIONING

Job Name: SNC
Prepared For:
Unit Tag: PREC-1
Quantity: 1

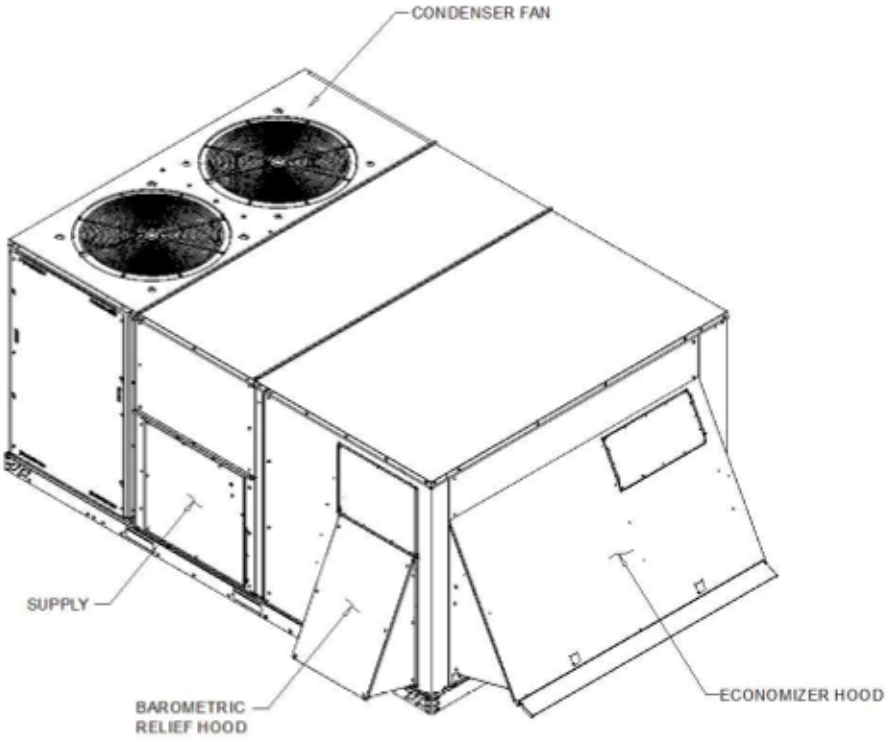


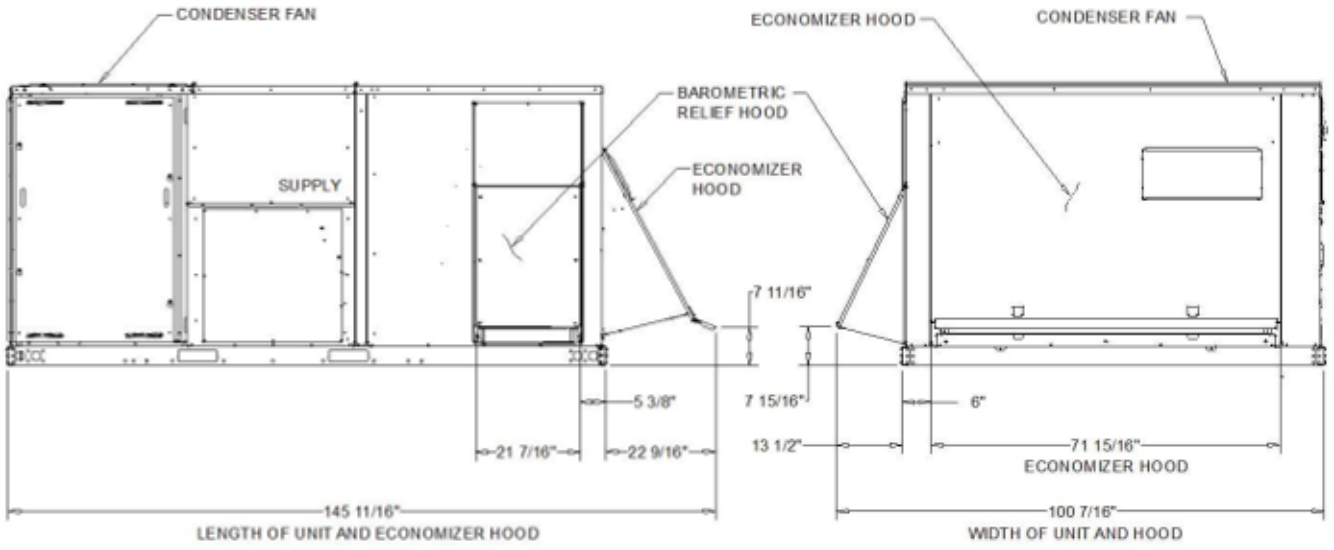




ROOF CURB (FIELD ACCESSORY)

DX COOLING / GAS HEAT STANDARD EFFICIENCY





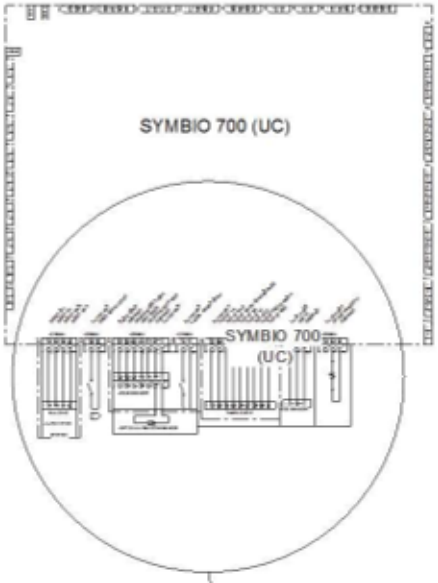
ECONOMIZER AND BAROMETIC AIR DAMPER(S) (FIELD ACCESSORY)

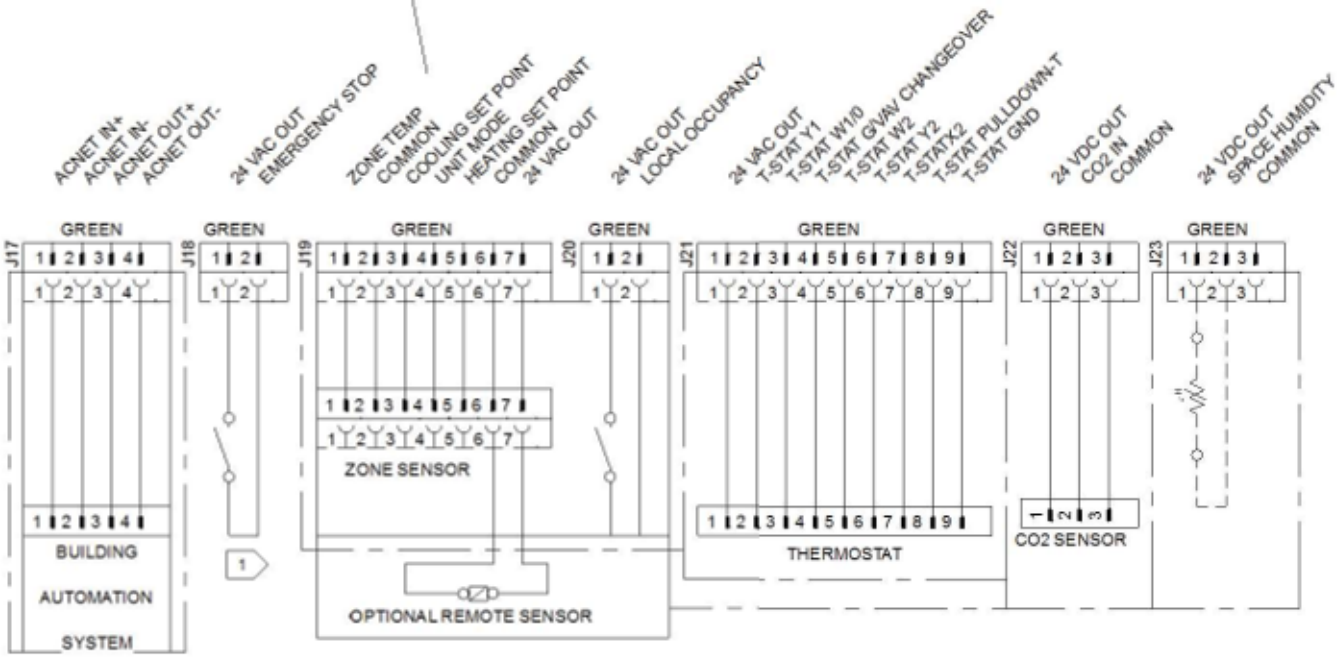
DX COOLING / GAS HEAT STANDARD EFFICIENCY

American Standard
HEATING & AIR CONDITIONING

Job Name: SNC
Prepared For:
Unit Tag: PREC-1
Quantity: 1

NOTES:
1. VERIFY WEIGHT, CONNECTION, AND ALL DIMENSION WITH INSTALLER DOCUMENTS BEFORE INSTALLATION

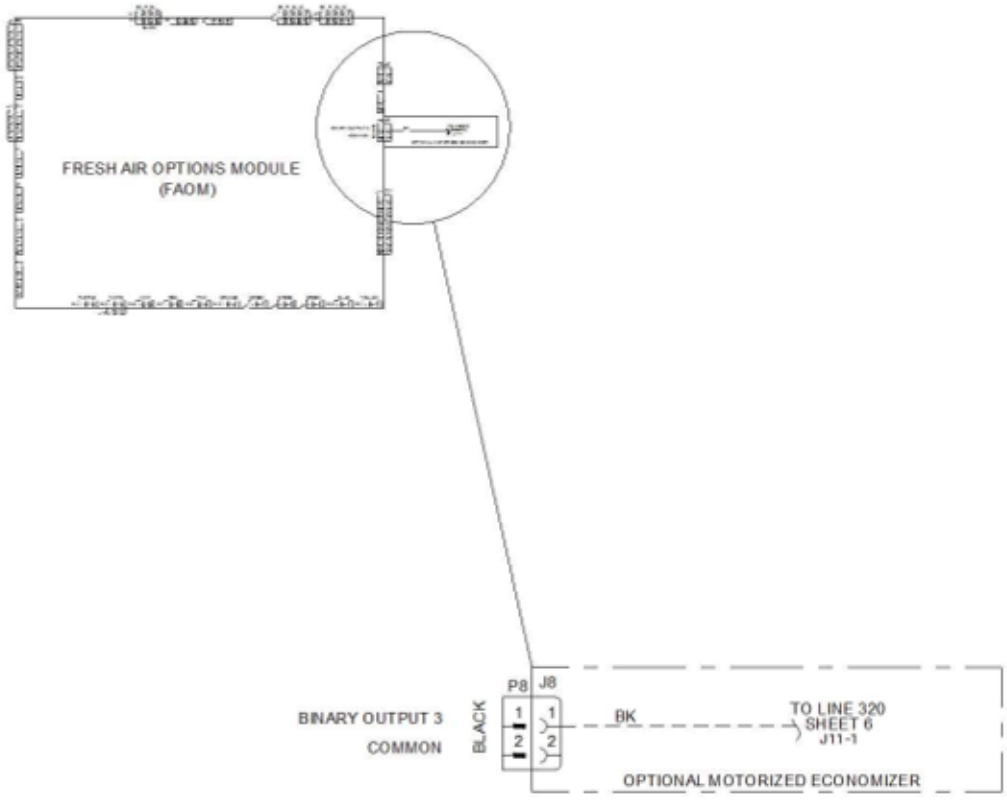




SYMBIO 700 (J17, j18, J19, J20, J21, J22, AND J23)

FIELD WIRING DRAWING

NOTES:
1. VERIFY WEIGHT, CONNECTION, AND ALL DIMENSION WITH INSTALLER DOCUMENTS BEFORE INSTALLATION



OPTIONAL MOTORIZED ECONOMIZER (J8)

FIELD WIRING DRAWING (INDOOR OPTION MODULE)

General
- Packaged rooftop units cooling, heating capacities, and efficiencies are AHRI Certified within scope of AHRI Standard 210-240 for 6 to 25 Tons and ANSIZ21.47 and 10 CFR Part 431 pertaining to Commercial Warm Air Furnaces (all gas heating units).
- Convertible airflow.
- Symbio controls operating range is from 0-125.0 F from factory; if designing for cooling mode operation below 40.0 F ambient temp, add low ambient kit to assure continuous and reliable operation.- Factory assembled, internally wired, fully charged with R-410A, and 100 percent run tested to check cooling operation, fan and blower rotation, and control sequence before leaving the factory.
- Colored and numbered wiring internal to the unit for simplified identification.
- Units cULus listed and labeled, classified in accordance for Central Cooling Air Conditioners.

Casing
- Zinc coated, heavy gauge, galvanized steel.
- Weather resistant pre-painted metal with galvanized substrate.
- Meets ASTM B117, 672 hour salt spray test.
- Removable single side maintenance access panels.
- Lifting handles in maintenance access panels (can be removed and reinstalled by removing fasteners while providing a water and air tight seal).
- Exposed vertical panels and top covers in the indoor air section insulated with a cleanable foil-faced, fire-retardant permanent, odorless glass fiber material.
- Base pan shall have no penetrations within the perimeter of the curb other than the raised 1 inch high downflow supply/return openings to provide an added water integrity precaution, if the condensate drain backs up.
- Base of the unit insulated with 1/8 inch, foil-faced, closed-cell insulation.
- Unit base provisions for forklift and/or crane lifting on three sides of unit.

Hail Guards
- Provides condenser coil protection.

Microchannel Coils
- Optimal heat transfer performance due to flat, streamlined tubes with small ports, and metallurgical tube-to-fin bond.
- Reduce system refrigerant charge by up to 50% leading to better compressor reliability.
- Compact all-aluminum microchannel coils reduce the unit weight.
- Recyclable all aluminum coils All aluminium construction minimizes galvanic corrosion.
- Strong aluminum brazed structure provides better fin protection.
- Flat streamlined tubes more dust resistant and easy to clean.
- Coils leak tested at the factory to ensure the pressure integrity.

Compressors
- All units have direct-drive, hermetic, scroll type compressors with centrifugal type oil pumps.
- Suction gas-cooled motor with voltage utilization range of plus or minus 10 percent of unit nameplate voltage.
- Internal overloads standard with scroll compressors.
- All units have dual compressors.
-Three stages of cooling available on 6 to 17.5 tons units and four stages of cooling available on 20 and 25 tons units.

Filters
-Two inch standard filters shall be factory supplied on all units.

Frostat
- Utilized as a safety device.
- Opens to prevent freezing temperatures on evaporator coil.
- Temperature will need to rise to 50°F before closing.
- Utilized in low airflow or high outside air applications (cooling only).

Gas Heating Section
-The heating section shall have a progressive tubular heat exchanger with corrosion-resistant aluminized steel tubes and burners as standard on all models.
-Stainless steel heat exchanger with 409 stainless steel tubes and 439 stainless steel burners shall be optional.
- Induced draft combustion blower shall be used to pull the combustion products through the firing tubes.
- Heater shall use a direct spark ignition (DSI) system.
- On initial call for heat, the combustion blower shall purge the heat exchanger for 20 seconds before ignition.
- After three unsuccessful ignition attempts, entire heating system shall be locked out until manually reset at the thermostat/zone sensor.
- Units shall be suitable for use with natural gas or propane (field-installed kit).

Indoor Fan
- Direct drive plenum fan design - 6 to 25 tons units.
- Plenum fan design - backward-curved fan wheel along with an external rotor direct drive variable speed indoor motor.
- Supply fan speed adjustments can be made using the Symbio 700 or Mobile App.
- Motors are thermally protected.
- Variable speed direct drive motors are high efficiency - 6 to 25 tons.

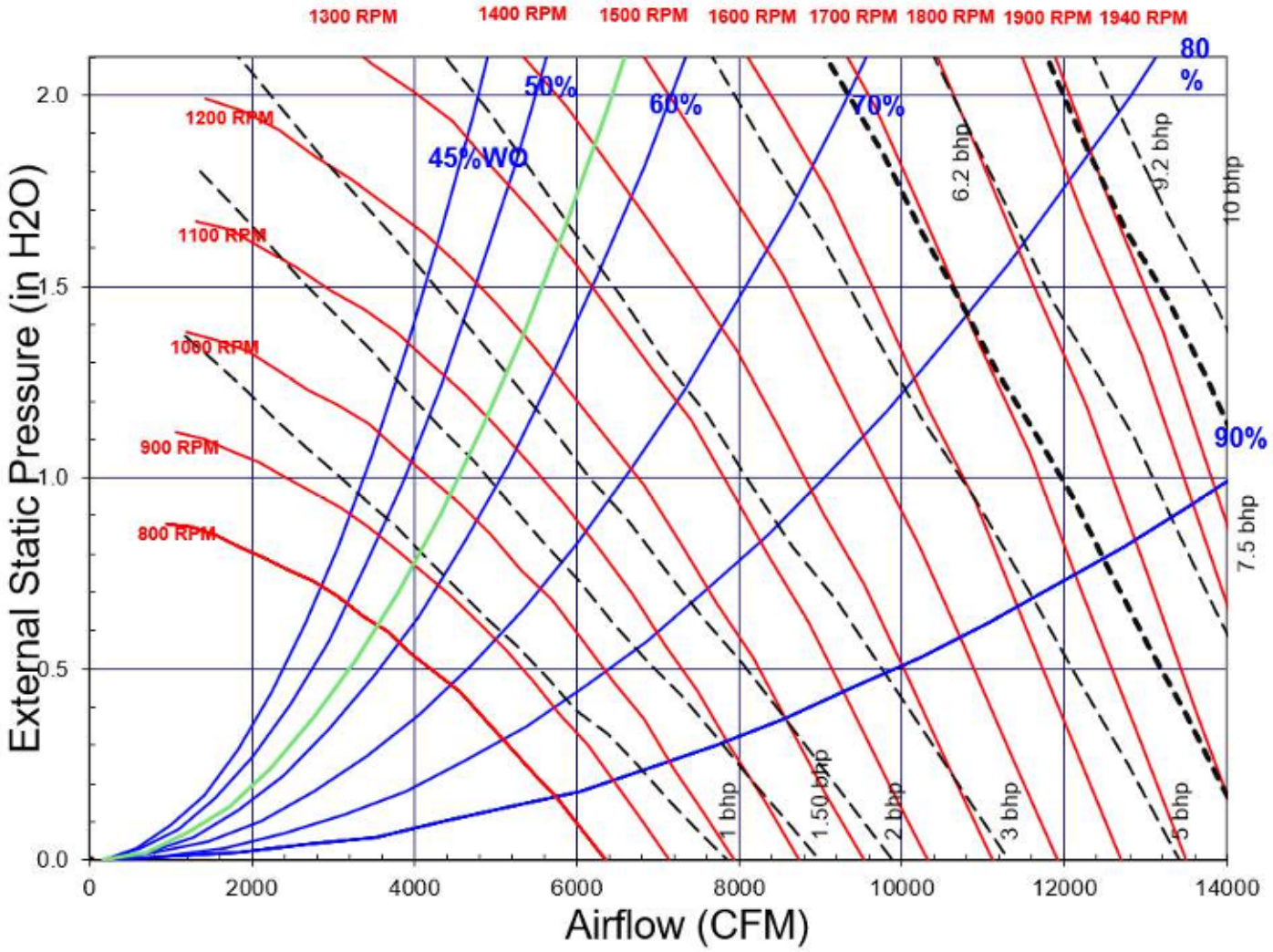
Heat Exchanger
- Compact cabinet features a tubular heat exchanger in low, medium and high heat capacities.
- Corrosion-resistant aluminized steel tubes and burners are standard on all models.
- Induced draft blower to pull the gas mixture through the burner tubes.
- Direct spark ignition and a flame sensor as a safety device to validate the flame.

Roof Curb
- Designed to mate with the unit?s downflow supply and return.
- Provide support and a water tight installation when installed properly.
- Shall allow field-fabricated rectangular supply/return ductwork to be connected directly to the curb.
- Curb shall be shipped knocked down for field assembly.
- Shall include wood nailer strips.

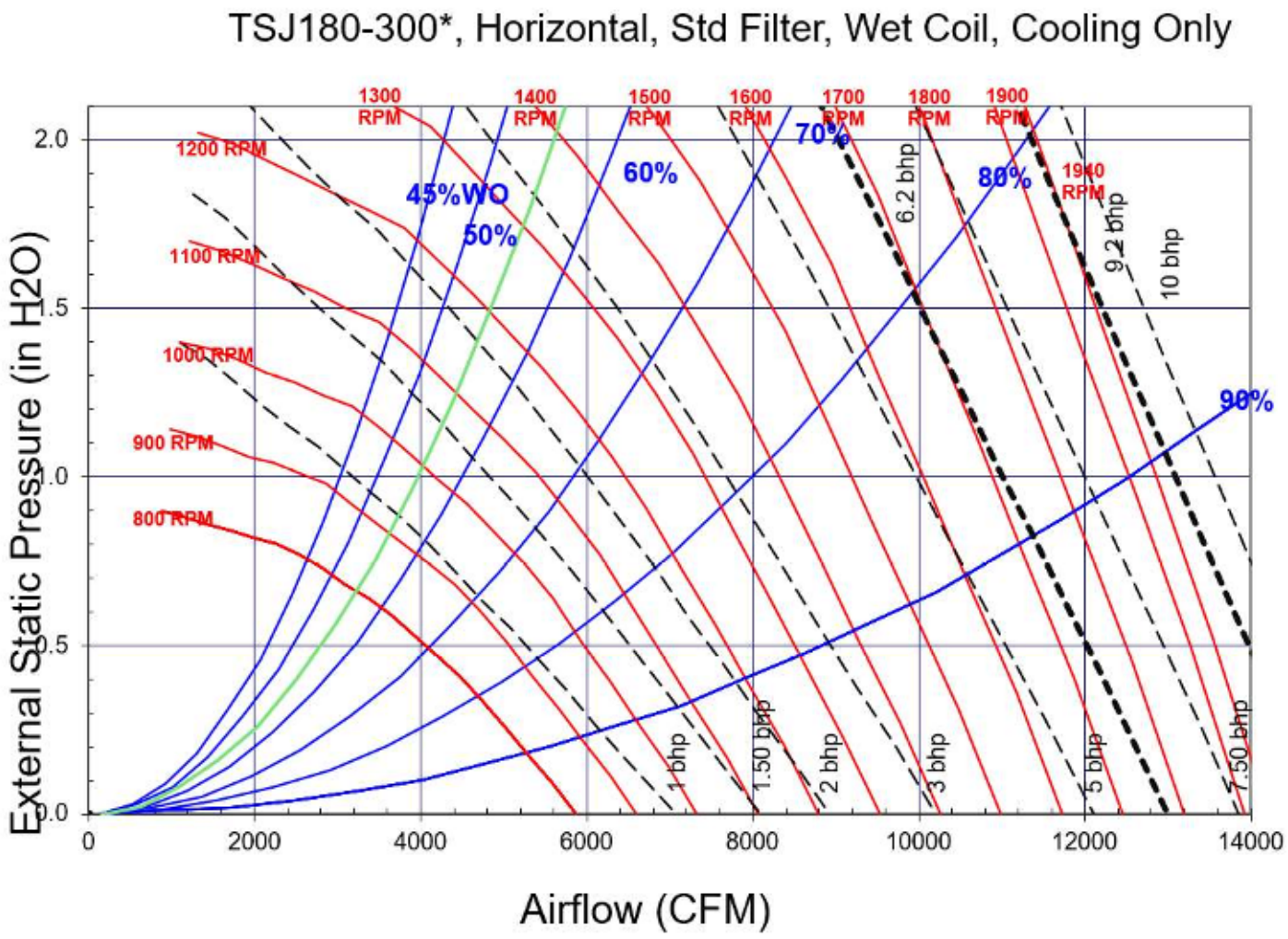
Economizer (Standard)
- Available with or without barometric relief.
- Fully modulating 0-100 percent motor and dampers, minimum position setting, preset linkage, wiring harness with plug, spring return actuator and fixed dry bulb control.
- Barometric relief shall provide a pressure operated damper that shall be gravity closing.
- Barometric relief shall prohibit entrance of outside air during the equipment ?off? cycle.
- Optional solid state or differential enthalpy control.
- Arrives in shipping position and shall be moved to the operating position by the installing contractor.

Heatpump - Economizer (Standard)
- Available with or without barometric relief.
- Fully modulating 0-100 percent motor and dampers, minimum position setting, preset linkage, wiring harness with plug, spring return actuator and fixed dry bulb control.
- Barometric relief shall provide a pressure operated damper that shall be gravity closing.
- Barometric relief shall prohibit entrance of outside air during the equipment ?off? cycle.
- Optional solid state or differential enthalpy control.
- Arrives in shipping position and shall be moved to the operating position by the installing contractor.

TSJ180-300*, Downflow, Std Filter, Wet Coil, Cooling Only



Note: Fan Curves are for TSJ/WSJ units. For YSJ units, add additional static pressure for Gas Heat Exchanger (ref. RT-PRC098*, table 47)



Note: Fan Curves are for TSJ/WSJ units. For YSJ units, add additional static pressure for Gas Heat Exchanger (ref. RT-PRC098*, table 47)

4401 Springfield St.
Dayton, OH 45431
OH LIC # 24297
937.254.3235
800.254.9455
msdinc.net

RESUBMITTAL COVER SHEET

PROJECT
SNC Warehouse

ENGINEER	ARCHITECT
L2	Champlin

SPECIFICATIONS NO.	ITEM
	RTU's

Resubmittal # 007.2

- [x] Approved
- [ ] Disapproved

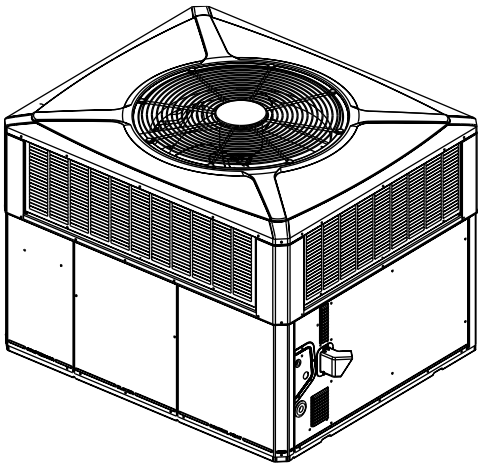
Date: 1/10/2025

Submitted by: Cole Kendig

Submittal

Single Packaged
Gas Heating / Electric Cooling

4YCC4036E1070A
4YCC4036E1090A



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

October 2022

4YCC4036E-SUB-1A-EN

RTU-6 (1200 CFM)
4YCC4036E1070A

Product Specifications

SEE NOTE ON DRAWING STAMP

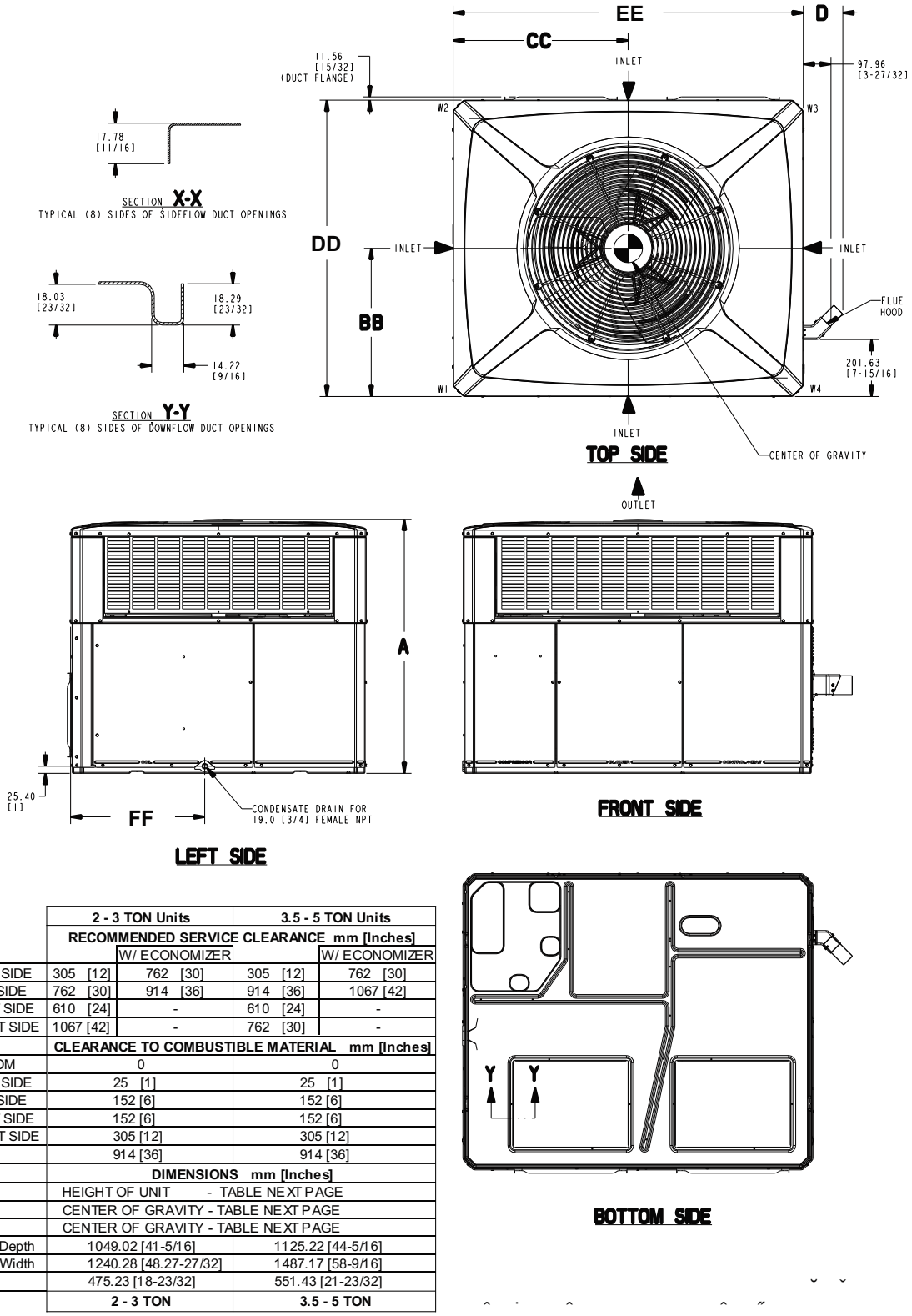
	4YCC4036E1070A	4YCC4036E1090A
RATED Volts/PH/Hz	208–230/1/60	208–230/1/60
Performance Cooling BTUH [a]	36400	36400
Indoor Airflow (CFM)	1215	1215
Power Input (KW)	3.17	3.17
EER2/SEER2 (BTU/Watt-Hr.)	11.00 / 13.40	11.00 / 13.40
Sound Power Rating [dB(A)] [b]	69.3	69.3
[c]		
Input BTUH-1st Stage (Natural 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
. — V/ Ph/Hz	208–230/1/60	208–230/1/60
Min. Brch. Cir. Ampacity [e]	26.2	26.2
Fuse Size — Max. (amps)	40	40
Fuse Size — Recmd. (amps)	40	40
	SCROLL	SCROLL
VOLTS/PH/HZ	208–230/1/60	208–230/1/60
R.L. Amps — L.R. Amps	15.4 / 83.9	15.4 / 83.9
	SPINE-FIN	SPINE-FIN
Rows/F.P.I	2 / 24	2 / 24
Face Area (sq. ft.)	15.49	15.49
Tube Size (in.)	3/8	3/8
	MCHE	MCHE
Rows/F.P.I	2 / 16	2 / 16
Face Area (sq. ft.)	2.7	2.7
Tube Size Width (in.)	1	1
Refrigeration Control	EXPANSION VALVE	EXPANSION VALVE
Drain Conn. Size (in.)	3/4 FEMALE NPT	3/4 FEMALE NPT
	SWEPT	SWEPT
DIA. (IN.)	23.4	23.4
DRIVE/NO. SPEEDS	DIRECT / 1	DIRECT / 1
CFM @ 0.0 in. w.g. [f]	3080	3080
Motor — HP/R.P.M	1 / 5 / 825	1 / 5 / 825

Volts/Ph/Hz	208–230 / 1 / 60	208–230 / 1 / 60
F.L. Amps/L.R Amps	1.1 / 2.0	1.1 / 2.0
	CONSTANT TORQUE ECM	CONSTANT TORQUE ECM
Dia. x Width (in.)	10.62 X 10.62	10.62 X 10.62
Drive/No. Speeds	DIRECT–4	DIRECT–4
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	5.8	5.8
	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	0.20	0.24
	NO	NO
Type Recommended	THROWAWAY	THROWAWAY
Recmd. Face Area (sq. ft) [h]	4.0	4.0
	R-410A	R-410A
Charge (lbs.)	7.2	7.2
Subcooling	11°	11°
	1/2	1/2
	H X D X W	H X D X W
Crated (in.)	48 X 45 X 52	48 X 45 X 52
Shipping (lbs.) / Net (lbs.)	438 / 374	453 / 379

[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.

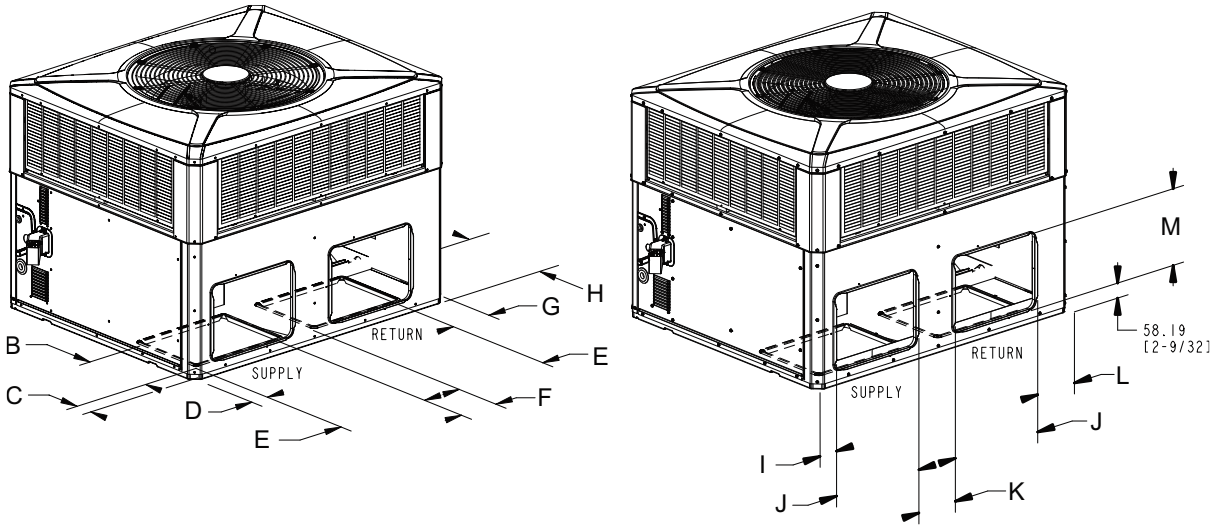
Outline Drawings

Figure 1. 2 - 5 Ton Models



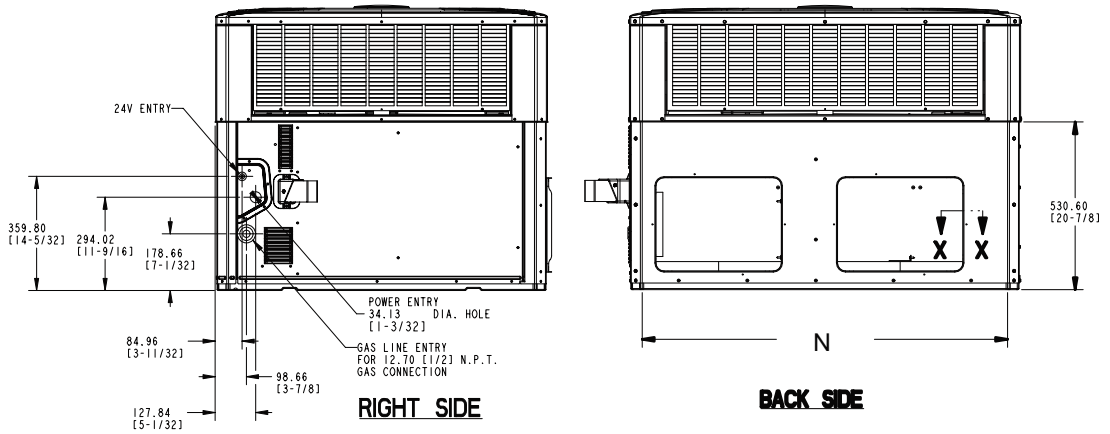
	2 - 3 TON Units		3.5 - 5 TON Units	
	RECOMMENDED SERVICE CLEARANCE mm [Inches]			
		W/ ECONOMIZER		W/ ECONOMIZER
BACK SIDE	305 [12]	762 [30]	305 [12]	762 [30]
LEFT SIDE	762 [30]	914 [36]	914 [36]	1067 [42]
RIGHT SIDE	610 [24]	-	610 [24]	-
FRONT SIDE	1067 [42]	-	762 [30]	-
	CLEARANCE TO COMBUSTIBLE MATERIAL 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	1049.02 [41-5/16]		1125.22 [44-5/16]	
EE -Width	1240.28 [48.27-27/32]		1487.17 [58-9/16]	
FF	475.23 [18-23/32]		551.43 [21-23/32]	
	2 - 3 TON		3.5 - 5 TON	

Figure 2. 2 - 5 Ton Models



BOTTOM DUCT OPENINGS

BACK DUCT OPENINGS



RIGHT SIDE

BACK SIDE

		PHYSICAL DIMENSIONS mm[In]												
	HEIGHT-A mm[inch]	B	C	D	E	F	G	H	I	J	K	L	M	N
4YCC4024	898.53 [35-3/8]	304.80 [12]	75.41 [2.93]	75.41 [2.93]	406.40 [16]	167.89 [6.61]	173.46 [6-27/32]	304.80 [12]	79.50 [3.13]	398.22 [15.68]	176.07 [6.93]	177.55 [6.99]	296.62 [11.68]	1155.45 [45.49]
4YCC4030	949.33 [37-3/8]													
4YCC4036														
4YCC4042	898.53 [35-3/8]	457.20 [18]	75.41 [2.97]	75.41 [2.97]	381.00 [15]	244.09 [9.61]	318.75 [12.55]	381.00 [15]	79.50 [3.13]	449.02 [17.68]	176.07 [6.93]	322.84 [12.71]	372.82 [14.68]	1402.34 [55.21]
4YCC4048	1000.13 [35-3/8]													
4YCC4060														

	Corner Weights KG/LBS				SHIPPING WEIGHT KG/LBS	UNIT WEIGHT KG/LBS	Center Of Gravity mm[inch]	
	W1	W2	W3	W4			BB	CC
4YCC4024* (060)	58 [129]	37 [81]	26 [58]	41 [90]	196 [432]	162 [358]	480 [19]	528 [21]
4YCC4030* (070)	61 [135]	39 [85]	28 [61]	43 [95]	205 [451]	171 [377]	407 [16]	594 [23]
4YCC4036* (070)	61 [134]	39 [84]	28 [60]	43 [95]	205 [438]	171 [374]	407 [16]	594 [28]
4YCC4036* (090)	61 [136]	39 [86]	28 [61]	43 [96]	205 [453]	171 [379]	407 [16]	594 [28]
4YCC4042*(060)	71 [157]	47 [103]	35 [76]	53 [117]	252 [555]	202 [202]	470 [19]	731 [29]
4YCC4042*(090)	72 [158]	47 [104]	35 [78]	54 [118]	255 [561]	207 [202]	470 [19]	731 [29]
4YCC4048*(070)	71 [157]	45 [98]	33 [73]	54 [119]	250 [552]	202 [448]	433 [17]	743 [29]
4YCC4048*(090)	72 [159]	45 [99]	34 [75]	55 [120]	253 [557]	205 [453]	433 [17]	743 [29]
4YCC4060*(090)	77 [170]	46 [101]	35 [76]	58 [128]	263 [580]	216 [476]	433 [17]	743 [29]
4YCC4060*(115)	78 [172]	46 [102]	35 [77]	59 [130]	266 [586]	219 [482]	414 [16]	635 [25]

Indoor Fan Performance

Table 1. Airflow Tables – 3 Tons

4YCC4036E1070		EXTERNAL STATIC PRESSURE (IN.WG) Horizontal Airflow [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**
Constant Circulation	CFM	APPROXIMATELY 40-50% COOLING OR HEATING AIRFLOW										
	WATTS											
Cooling - Low	CFM	-	1272 (1259)	1243 (1231)	1214 (1202)	1186 (1174)	1154 (1142)	1116 (1105)	1072 (1061)	-	-	-
	WATTS	-	352 (354)	361 (363)	372 (374)	382 (384)	392 (394)	404 (406)	416 (418)	-	-	-
Cooling - Med	CFM	-	-	-	-	1349 (1336)	1319 (1306)	1277 (1264)	1242 (1230)	1199 (1187)	1160 (1148)	1124 (1113)
	WATTS	-	-	-	-	489 (492)	500 (503)	511 (514)	523 (526)	537 (540)	548 (551)	558 (561)
Cooling - High	CFM	-	-	-	-	-	1326 (1299)	1296 (1270)	1263 (1238)	1225 (1201)	1183 (1159)	1150 (1127)
	WATTS	-	-	-	-	-	516 (519)	527 (530)	539 (542)	552 (555)	566 (569)	575 (578)
Heating - Low	CFM	1185 (1173)	1141 (1130)	1099 (1088)	1055 (1044)	1009 (999)	968 (958)	920 (911)	854 (846)	808 (800)	731 (724)	624 (618)
	WATTS	241 (238)	251 (248)	260 (258)	270 (267)	279 (277)	289 (286)	299 (296)	311 (308)	320 (316)	306 (303)	284 (282)
Heating - High	CFM	1386 (1373)	1354 (1340)	1311 (1298)	1276 (1263)	1238 (1225)	1198 (1186)	1164 (1153)	1069 (1058)	805 (797)	689 (682)	596 (590)
	WATTS	386 (382)	399 (395)	409 (405)	419 (415)	430 (425)	441 (437)	452 (448)	432 (428)	320 (317)	303 (300)	298 (295)

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

4YCC4036E1090		EXTERNAL STATIC PRESSURE (IN.WG) Horizontal Airflow [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**
Constant Circulation	CFM	APPROXIMATELY 40-50% COOLING OR HEATING AIRFLOW										
	WATTS											
Cooling - Low	CFM	1288 (-)	1254 (1238)	1225 (1207)	1193 (1176)	1158 (1143)	1117 (1091)	1070 (-)	-	-	-	-
	WATTS	340 (-)	348 (348)	357 (357)	366 (366)	375 (375)	385 (385)	395 (-)	-	-	-	-
Cooling - Med	CFM	-	1326 (1320)	1300 (1294)	1271 (1263)	1241 (1234)	1201 (1196)	1107 (1102)	-	-	-	-
	WATTS	-	410 (410)	419 (419)	427 (427)	437 (437)	447 (447)	423 (423)	-	-	-	-
Cooling - High	CFM	-	-	-	-	1349 (1336)	1319 (1306)	1277 (1264)	1242 (1230)	1199 (1187)	1160 (1148)	1124 (1113)
	WATTS	-	-	-	-	489 (492)	500 (503)	511 (514)	523 (526)	537 (540)	548 (551)	558 (561)
Heating - Low	CFM	1292 (1285)	1259 (1252)	1230 (1222)	1199 (1186)	1163 (1148)	1124 (1111)	1071 (1060)	963 (954)	799 (781)	638 (-)	-
	WATTS	343 (343)	351 (351)	360 (360)	369 (369)	378 (378)	388 (388)	398 (398)	370 (370)	316 (316)	293 (-)	-
Heating - High	CFM	1367 (1355)	1341 (1326)	1310 (1295)	1282 (1267)	1250 (1235)	1212 (1183)	1075 (1056)	928 (913)	781 (-)	631 (-)	-
	WATTS	404 (404)	413 (413)	421 (421)	431 (431)	439 (439)	448 (448)	404 (404)	346 (346)	302 (-)	282 (-)	-

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

Indoor Fan Performance

To set indoor motor for the desired speed options, connect the motor leads in the taps as shown below:

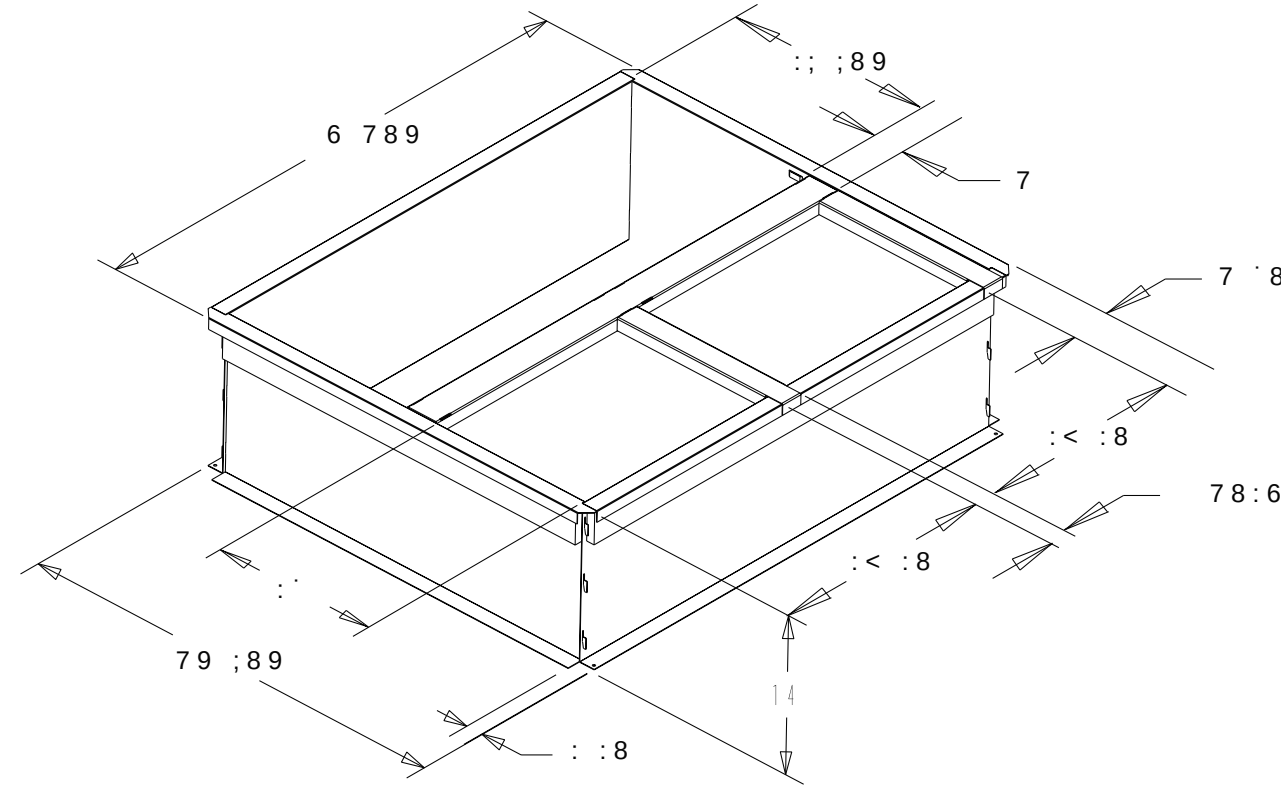
Table 2. Motor Wiring: 4YCC4024 - 42, 4YCC4060

MOTOR WIRING	MOTOR TAP				
MODE/SPEED	1	2	3	4	5
CONSTANT CIRCULATION	G (GR)				
COOLING-LOW & HEATING-LOW	G (GR)	Y (YL)		W (PR)	
COOLING-LOW & HEATING-HIGH	G (GR)	Y (YL)			W (PR)
COOLING-MED & HEATING-LOW	G (GR)		Y (YL)	W (PR)	
COOLING-MED & HEATING-HIGH	G (GR)		Y (YL)		W (PR)
COOLING-HIGH & HEATING-LOW	G (GR)			W (PR)	Y (YL)
COOLING-HIGH & HEATING-HIGH	G (GR)			Y (YL)	W (PR)
G signal (GR - green wire), Y signal (YL - yellow wire), W signal (PR - purple wire)					

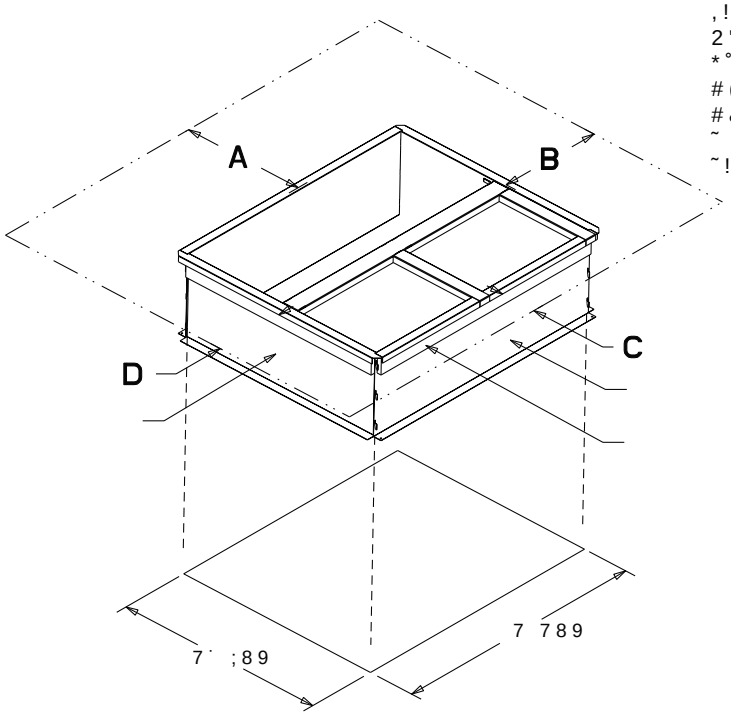
Full Perimeter Roof Mounting Curb

Figure 3. 2.0 — 3.0 Ton Models

BAYCURB050A Full Perimeter Roof Mounting Curb



˚ ~ ! " #$%&' $ (˛ #&) ! % ! ˚) ˚) ! ˚~ * + (˛ ˚
,! $ - . ! / (- ˚ # $ ' ~˚ (' 0)# ˜˚ ~˚ (! # 1 ˚ % ! ~
2 ' * 1+ ! - (' $ 1+ ˜ ˛˚ &˚ ~ ! " #$%& ! ˚ $ ' (#$(˚ $ ˜˚ ~ ('
* ˚ - & ˚ ~ ! & ! * ! & # & (' / ' $ & (- / (3 * - #+ 1 ˛˚
# (˚ , & ~˚) # / (˚~ # $ (" ˚#$%& ˛˚ , ! $ - . ! / (- ˚
# & $ ' (˚ &) ' $ & # * 1 ˚ . ' (˛˚ - $ ˜ ! - (& ˚ #. 4 (˛˚ &
~ ! " #$%& ! $ ~ ˚ 5) ˚ && 1+ ~ #& / 1 # & ! $ + 1# * #4 (+ . '
~ ! , ! % ˚ & ˚ & - 1 (# $ % . ', & - / ˛ - $ ˚ ! ~ (- ˛ & ˚ # 4



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

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)

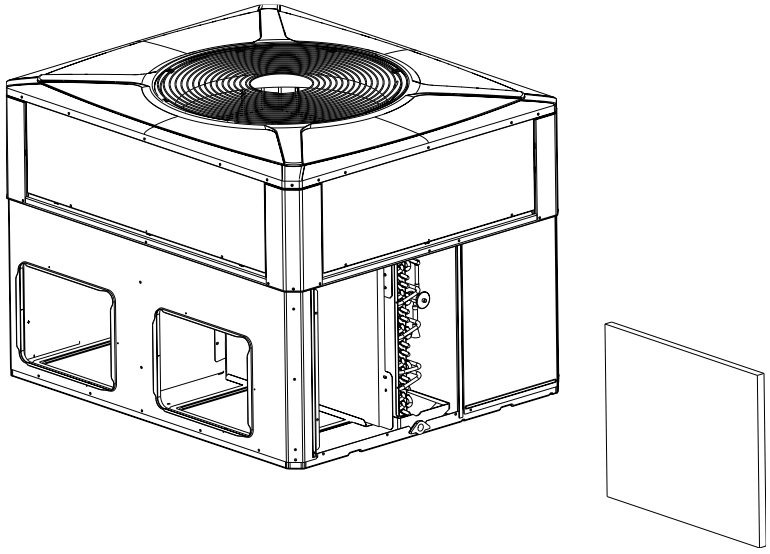
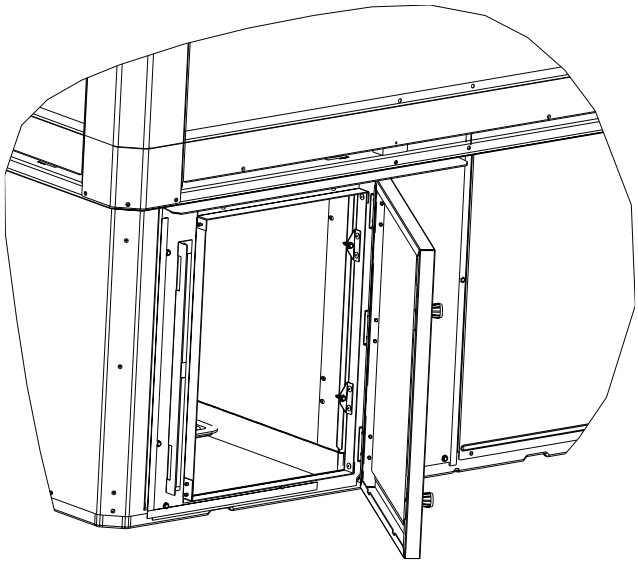


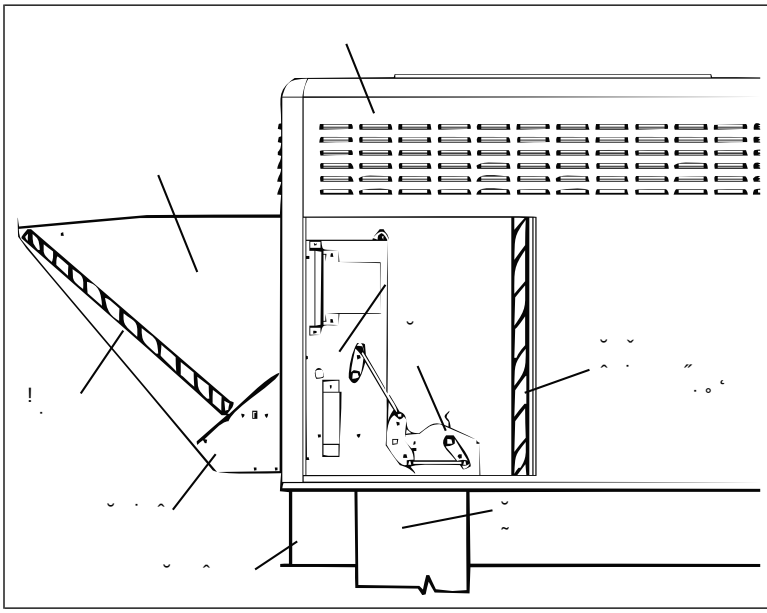
Figure 5. BAYACCDOR1A Hinged Filter Access Door (2.0 – 3.0 Ton Models)
BAYACCDOR2A (3.5 – 5.0 Ton Models)
Replaces Filter/Coil Access Panel



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.*

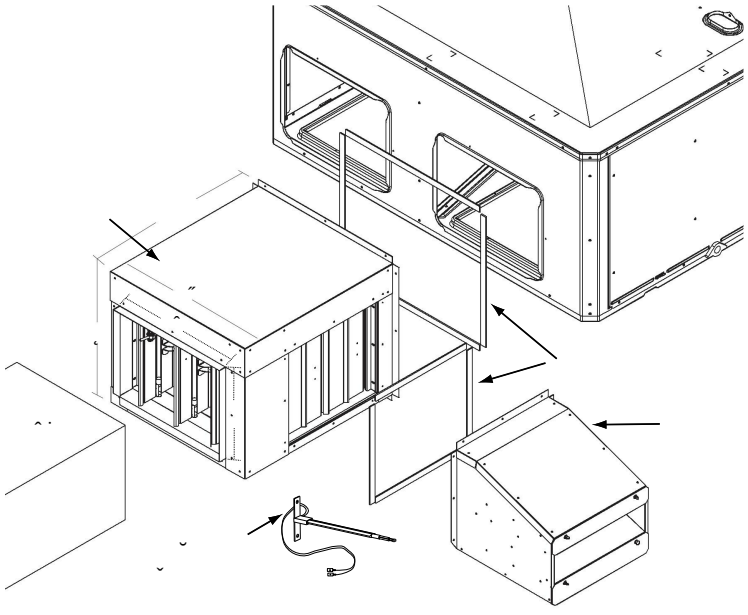
Optional Equipment — Economizer

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



5$^$6ˇ&/%	^ˇ' ..)ˇ5('ˇ$^ $0/)7
BAYECON101A	2.0 — 3.0 Ton Models
BAYECON102A	3.5 — 5.0 Ton Models

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

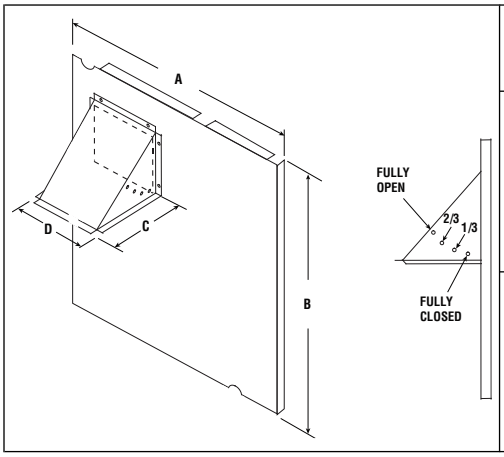


5$^$6ˇ&/%	$0/)7						
BAYECON200A	2.0 — 3.0 Ton	22″	20″	16–7/8″	15–11/16″	11–11/16″	15″
BAYECON201A	3.5 — 5.0 Ton	26″	22–21/32″	19″	17–11/16″	14–11/16″	21–3/8″

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.*

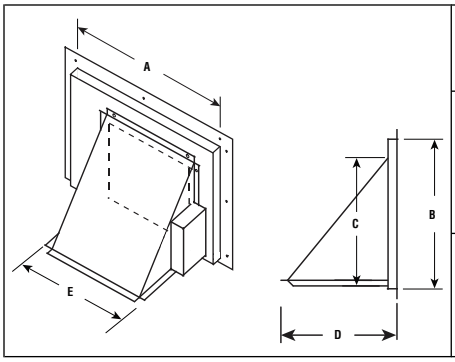
Optional Equipment — Outside Air Damper

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



(^8() %/79 ˇ%$0/)	^ˇ' ..)ˇ5('ˇ$^ $0/)7				
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)



(^8() %/79ˇ% $0/)	^ˇ' ..)ˇ5('ˇ$^ $0/)7					
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 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.

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 extinquished.

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.

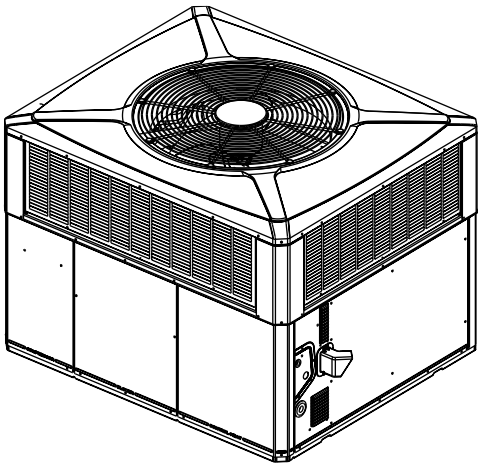
The manufacturer has a policy of continuous data improvement and it reserves the right to change design and specifications without notice. We are committed to using environmentally conscious print practices.

4YCC4036E-SUB-1A-EN 28 Oct 2022
Supersedes (New)

Submittal

Single Packaged
Gas Heating / Electric Cooling

4YCC4048E1070A
4YCC4048E1090A



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

October 2022

4YCC4048E-SUB-1A-EN

RTU-4
4YCC4048E1070A

Product Specifications

SEE NOTE ON DRAWING STAMP

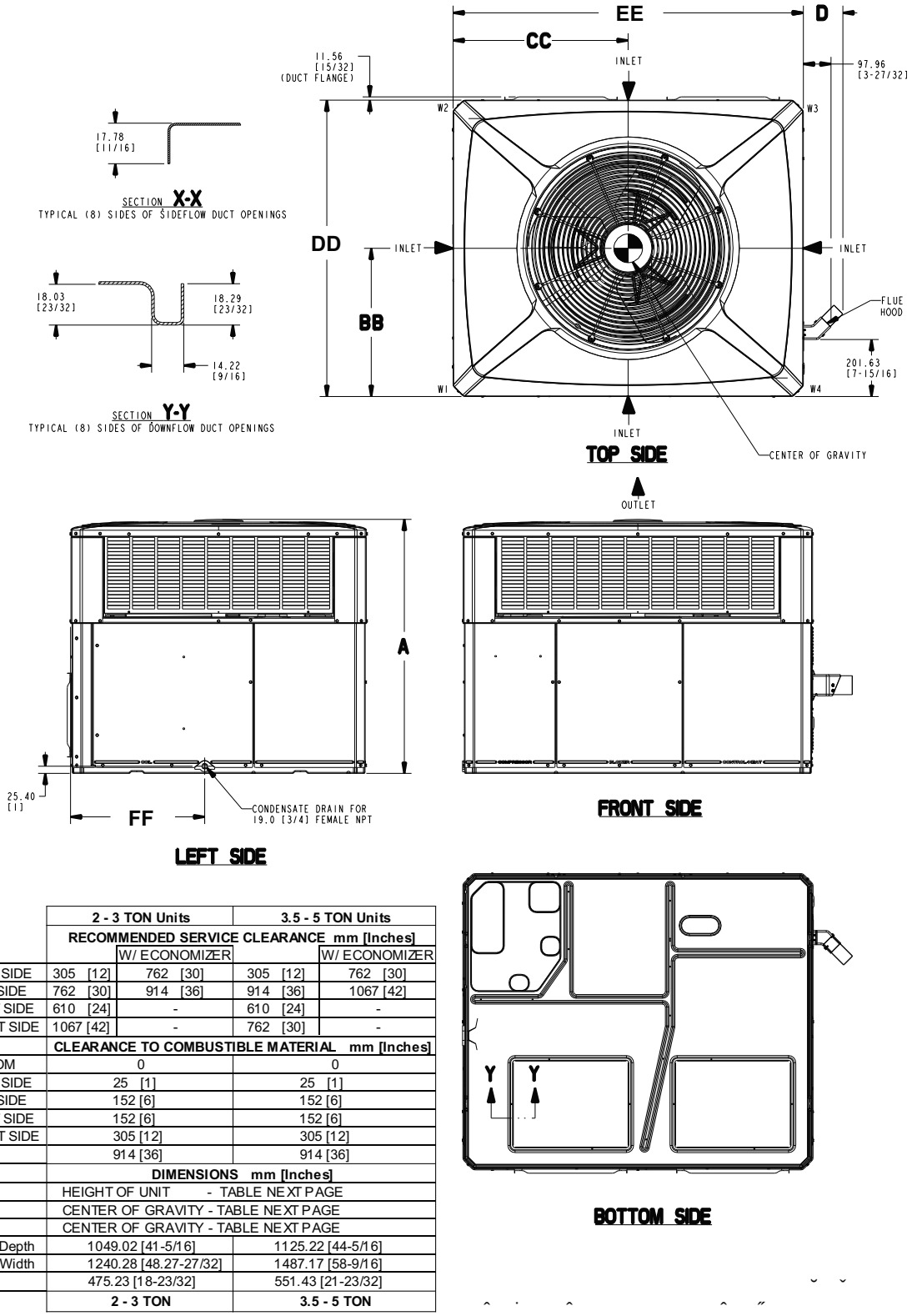
	4YCC4048E1070A	4YCC4048E1090A
RATED Volts/PH/Hz	208–230/1/60	208–230/1/60
Performance Cooling BTUH (a)	46000	46000
Indoor Airflow (CFM)	1625	1625
Power Input (KW)	4.2	4.2
EER2/SEER2 (BTU/ Watt-Hr.)	10.80 / 13.40	10.80 / 13.40
Sound Power Rating [dB(A)] (b)	72.5	72.5
(c)		
Input BTUH-1st Stage (Natural 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
. — V/ Ph/Hz	208–230/1/60	208–230/1/60
Min. Brch. Cir. Ampacity (e)	31.8	31.8
Fuse Size — Max. (amps)	50	50
Fuse Size — Recmd. (amps)	50	50
	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
	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
	MCHE	MCHE
Rows/F.P.I	2 / 16	2 / 16
Face Area (sq. ft.)	3.9	3.9
Tube Size Width (in.)	0.81	0.81
Refrigeration Control	EXPANSION VALVE	EXPANSION VALVE
Drain Conn. Size (in.)	3/4 FEMALE NPT	3/4 FEMALE NPT
	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
	CONSTANT TORQUE ECM	CONSTANT TORQUE ECM
Dia. x Width (in.)	10.62 X 10.62	10.62 X 10.62
Drive/No. Speeds	DIRECT / 5	DIRECT / 5
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
	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	0.20	0.24
	NO	NO
Type Recommended	THROWAWAY	THROWAWAY
Recmd. Face Area (sq. ft) (h)	5.3	5.3
	R-410A	R-410A
Charge (lbs.)	7.5	7.5
Subcooling	10°	10°
˘˘˘·	1/2	1/2
	H X D X W	H X D X W
Crated (in.)	50 X 47 X 62	50 X 47 X 62
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

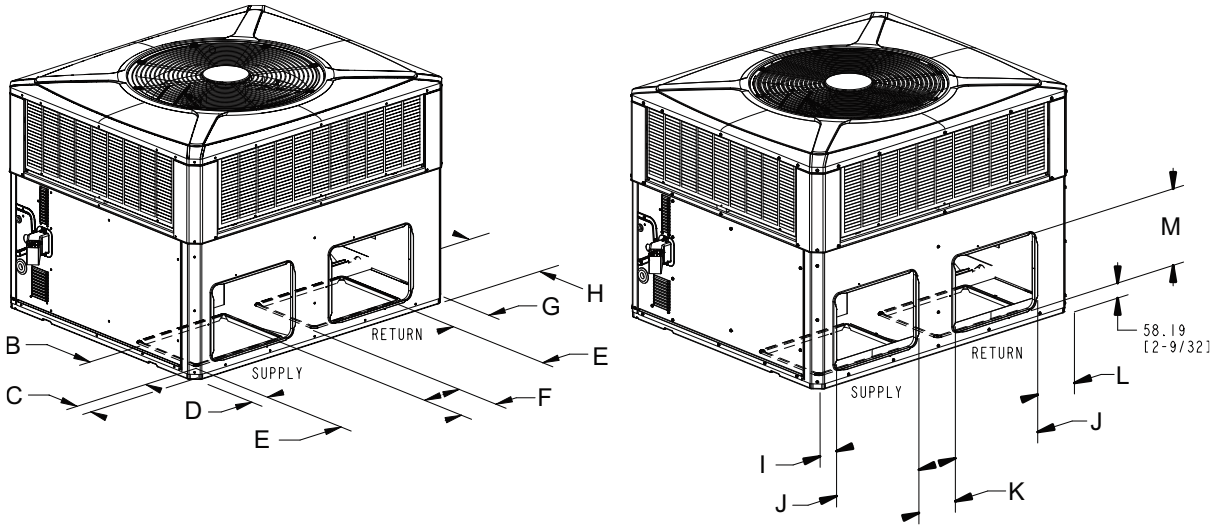
Figure 1. 2 - 5 Ton Models



	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	1049.02 [41-5/16]		1125.22 [44-5/16]	
EE -Width	1240.28 [48.27-27/32]		1487.17 [58-9/16]	
FF	475.23 [18-23/32]		551.43 [21-23/32]	
	2 - 3 TON		3.5 - 5 TON	

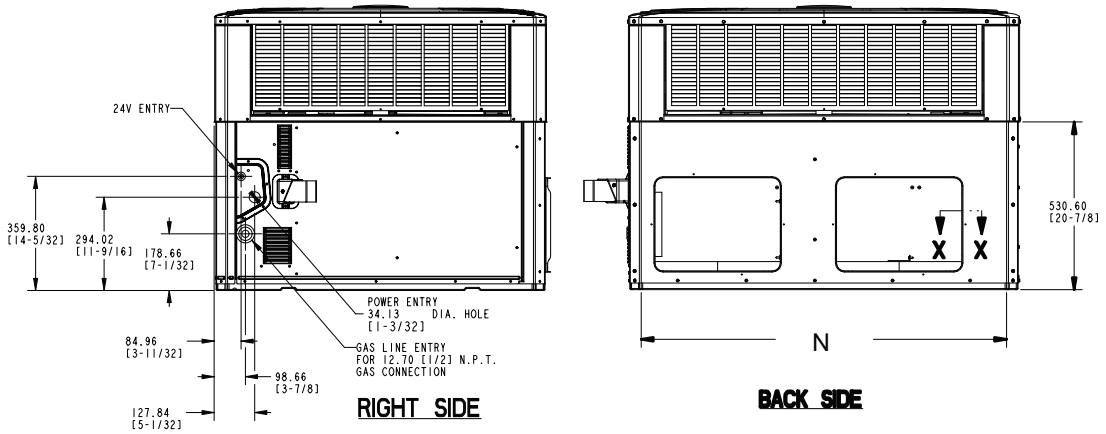
Outline Drawings

Figure 2. 2 - 5 Ton Models



BOTTOM DUCT OPENINGS

BACK DUCT OPENINGS



RIGHT SIDE

BACK SIDE

		PHYSICAL DIMENSIONS mm[In]												
	HEIGHT-A mm[inch]	B	C	D	E	F	G	H	I	J	K	L	M	N
4YCC4024	898.53 [35-3/8]	304.80 [12]	75.41 [2.93]	75.41 [2.93]	406.40 [16]	167.89 [6.61]	173.46 [6-27/32]	304.80 [12]	79.50 [3.13]	398.22 [15.68]	176.07 [6.93]	177.55 [6.99]	296.62 [11.68]	1155.45 [45.49]
4YCC4030	949.33 [37-3/8]													
4YCC4036														
4YCC4042	898.53 [35-3/8]	457.20 [18]	75.41 [2.97]	75.41 [2.97]	381.00 [15]	244.09 [9.61]	318.75 [12.55]	381.00 [15]	79.50 [3.13]	449.02 [17.68]	176.07 [6.93]	322.84 [12.71]	372.82 [14.68]	1402.34 [55.21]
4YCC4048	1000.13 [35-3/8]													
4YCC4060														

	Corner Weights KG/LBS				SHIPPING WEIGHT KG/LBS	UNIT WEIGHT KG/LBS	Center Of Gravity mm[inch]	
	W1	W2	W3	W4			BB	CC
4YCC4024* (060)	58 [129]	37 [81]	26 [58]	41 [90]	196 [432]	162 [358]	480 [19]	528 [21]
4YCC4030* (070)	61 [135]	39 [85]	28 [61]	43 [95]	205 [451]	171 [377]	407 [16]	594 [23]
4YCC4036* (070)	61 [134]	39 [84]	28 [60]	43 [95]	205 [438]	171 [374]	407 [16]	594 [28]
4YCC4036* (090)	61 [136]	39 [86]	28 [61]	43 [96]	205 [453]	171 [379]	407 [16]	594 [28]
4YCC4042*(060)	71 [157]	47 [103]	35 [76]	53 [117]	252 [555]	202 [202]	470 [19]	731 [29]
4YCC4042*(090)	72 [158]	47 [104]	35 [78]	54 [118]	255 [561]	207 [202]	470 [19]	731 [29]
4YCC4048*(070)	71 [157]	45 [98]	33 [73]	54 [119]	250 [552]	202 [448]	433 [17]	743 [29]
4YCC4048*(090)	72 [159]	45 [99]	34 [75]	55 [120]	253 [557]	205 [453]	433 [17]	743 [29]
4YCC4060*(090)	77 [170]	46 [101]	35 [76]	58 [128]	263 [580]	216 [476]	433 [17]	743 [29]
4YCC4060*(115)	78 [172]	46 [102]	35 [77]	59 [130]	266 [586]	219 [482]	414 [16]	635 [25]

Indoor Fan Performance

Table 1. Airflow Tables – 4 Tons

4YCC4048E1070		EXTERNAL STATIC PRESSURE (IN.WG) Horizontal Airflow [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**
Constant Circulation	CFM	APPROXIMATELY 40-50% COOLING OR HEATING AIRFLOW										
	WATTS											
Cooling - Low	CFM	1583 (1567)	1542 (1526)	1502 (1487)	1460 (1445)	1415 (1401)	-	-	-	-	-	-
	WATTS	302 (308)	313 (320)	324 (330)	332 (339)	346 (352)	-	-	-	-	-	-
Cooling - Med	CFM	1763 (1745)	1723 (1706)	1689 (1672)	1648 (1632)	1609 (1593)	1568 (1552)	1527 (1512)	1488 (1473)	1447 (1433)	-	-
	WATTS	414 (422)	426 (434)	436 (444)	448 (457)	459 (468)	471 (480)	483 (493)	495 (505)	510 (520)	-	-
Cooling - Med High	CFM	-	1786 (1768)	1757 (1739)	1729 (1712)	1700 (1683)	1675 (1658)	1648 (1632)	1624 (1608)	1504 (1489)	-	-
	WATTS	-	577 (589)	591 (603)	604 (616)	617 (629)	631 (644)	643 (656)	655 (668)	599 (611)	-	-
Cooling - High	CFM	-	-	-	-	-	1769 (1751)	1728 (1711)	1688 (1671)	1652 (1635)	1545 (1530)	-
	WATTS	-	-	-	-	-	613 (625)	631 (644)	643 (656)	647 (660)	611 (623)	-
Heating - Low	CFM	1120 (1126)	1047 (1052)	980 (985)	914 (918)	840 (845)	758 (762)	674 (677)	581 (584)	-	-	-
	WATTS	117 (117)	126 (127)	135 (136)	145 (146)	156 (156)	168 (168)	179 (180)	188 (189)	-	-	-
Heating - High	CFM	-	1204 (1210)	1149 (1154)	1095 (1100)	1043 (1048)	989 (994)	926 (930)	858 (862)	798 (802)	-	-
	WATTS	-	176 (177)	185 (186)	195 (196)	205 (206)	216 (217)	227 (228)	239 (240)	249 (250)	-	-

Note: *Cooling airflow must not exceed 1800 CFM due to condensate blowoff.*

4YCC4048E1090		EXTERNAL STATIC PRESSURE (IN.WG) Horizontal Airflow [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**
Constant Circulation	CFM	APPROXIMATELY 40-50% COOLING OR HEATING AIRFLOW										
	WATTS											
Cooling - Low	CFM	1583 (1567)	1542 (1526)	1502 (1487)	1460 (1445)	1415 (1401)	-	-	-	-	-	-
	WATTS	302 (308)	313 (320)	324 (330)	332 (339)	346 (352)	-	-	-	-	-	-
Cooling - Med	CFM	1763 (1745)	1723 (1706)	1689 (1672)	1648 (1632)	1609 (1593)	1568 (1552)	1527 (1512)	1488 (1473)	1447 (1433)	-	-
	WATTS	414 (422)	426 (434)	436 (444)	448 (457)	459 (468)	471 (480)	483 (493)	495 (505)	510 (520)	-	-
Cooling - Med High	CFM	-	1786 (1768)	1757 (1739)	1729 (1712)	1700 (1683)	1675 (1658)	1648 (1632)	1624 (1608)	1504 (1489)	-	-
	WATTS	-	577 (589)	591 (603)	604 (616)	617 (629)	631 (644)	643 (656)	655 (668)	599 (611)	-	-
Cooling - High	CFM	-	-	-	-	-	1769 (1751)	1728 (1711)	1688 (1671)	1652 (1635)	1545 (1530)	-
	WATTS	-	-	-	-	-	613 (625)	631 (644)	643 (656)	647 (660)	611 (623)	-
Heating - Low	CFM	1419 (1426)	1380 (1387)	1341 (1348)	1295 (1301)	1249 (1255)	1204 (1210)	1160 (1166)	1115 (1120)	1069 (1074)	1015 (1020)	961 (966)
	WATTS	240 (241)	250 (251)	259 (260)	269 (270)	279 (281)	291 (292)	302 (303)	312 (314)	323 (325)	333 (335)	348 (349)
Heating - High	CFM	1559 (1567)	1524 (1531)	1483 (1491)	1443 (1450)	1401 (1408)	1363 (1370)	1319 (1326)	1276 (1282)	1233 (1239)	1195 (1201)	1147 (1152)
	WATTS	313 (315)	324 (325)	335 (337)	346 (347)	356 (358)	367 (368)	379 (381)	392 (394)	403 (405)	415 (417)	428 (430)

Note: *Cooling airflow must not exceed 1800 CFM due to condensate blowoff.*

Indoor Fan Performance

To set indoor motor for the desired speed options, connect the motor leads in the taps as shown below:

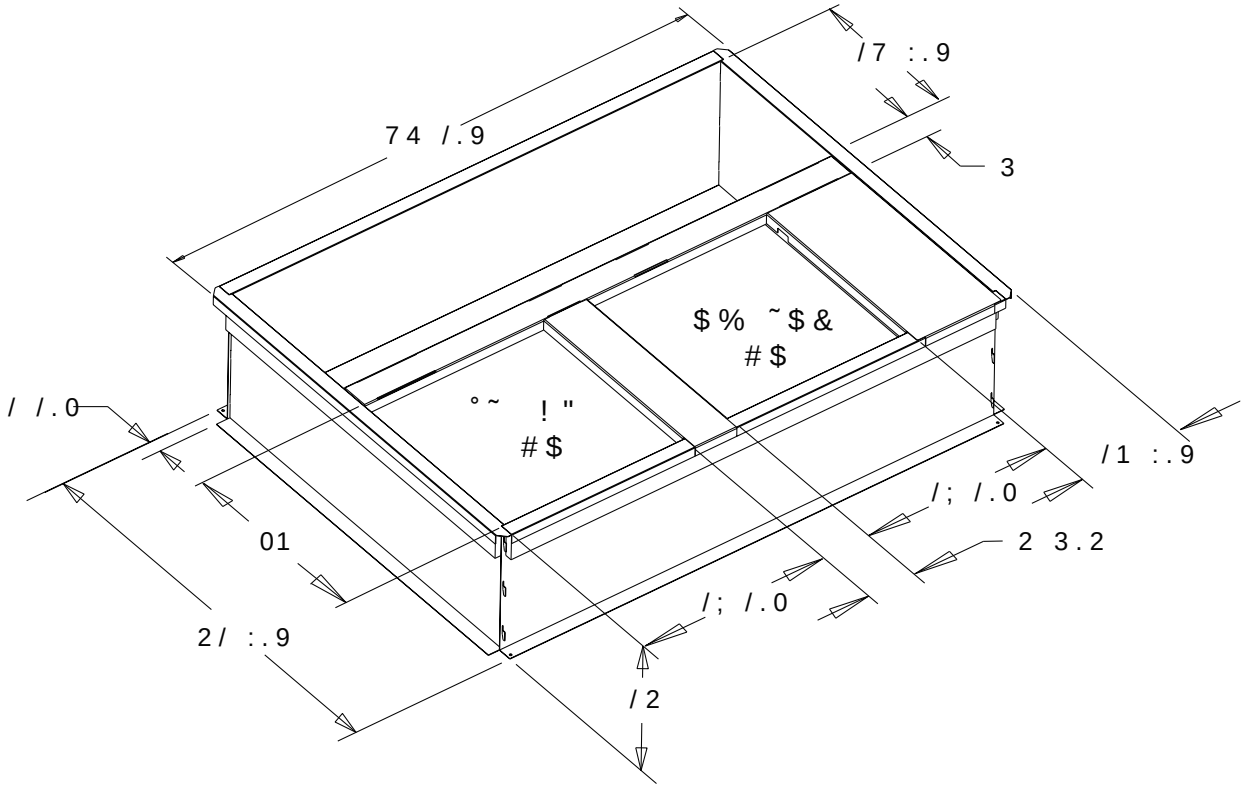
Table 2. Motor Wiring: 4YCC4048

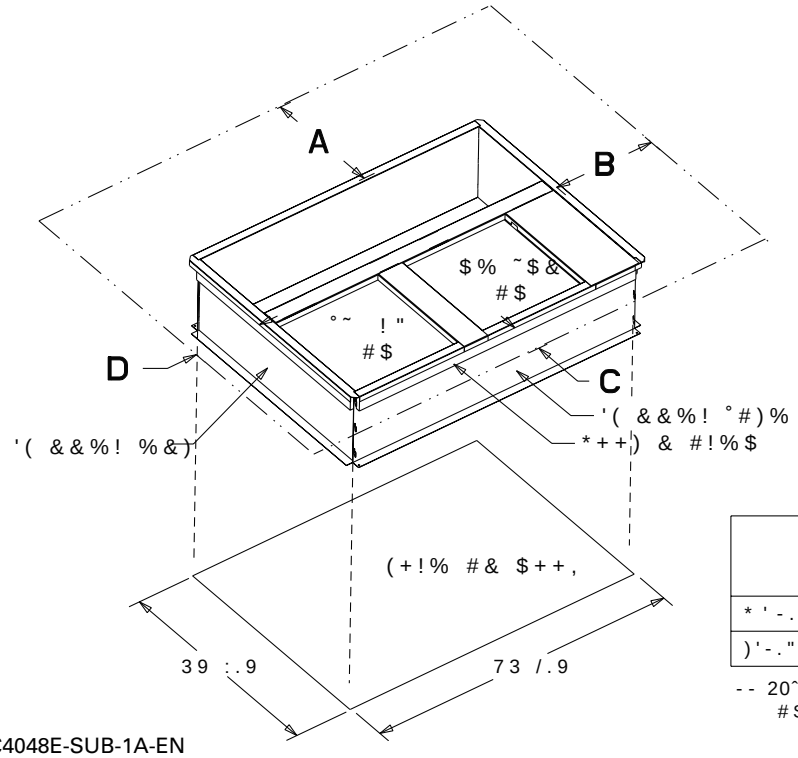
MOTOR WIRING	MOTOR TAP				
MODE/SPEED	1	2	3	4	5
CONSTANT CIRCULATION	G (GR)				
COOLING-LOW & HEATING-LOW	G (GR)	Y (YL)		W (PR)	
COOLING-LOW & HEATING-HIGH	G (GR)	Y (YL)			W (PR)
COOLING-MED LOW& HEATING-LOW	G (GR)		Y (YL)	W (PR)	
COOLING-MED LOW & HEATING-HIGH	G (GR)		Y (YL)		W (PR)
COOLING-MED HIGH & HEATING-LOW	G (GR)	W (PR)		Y (YL)	
COOLING-MED HIGH & HEATING-HIGH	G (GR)		W (PR)	Y (YL)	
COOLING-HIGH & HEATING-LOW	G (GR)	W (PR)			Y (YL)
COOLING-HIGH & HEATING-HIGH	G (GR)		W (PR)		Y (YL)
G signal (GR - green wire), Y signal (YL - yellow wire), W signal (PR - purple wire)					

Full Perimeter Roof Mounting Curb

Figure 3. 3.5 — 5.0 Ton Models

BAYCURB051A Full Perimeter Roof Mounting Curb





	SERVICE CLEARANCE DIMENSIONS			
	A	**B**	**C**	**D**
*'-.'-	20ˆ11	34ˆ11	/0ˆ11--	02ˆ11
)'-."'-	20ˆ11	34ˆ11	/0ˆ11--	34ˆ11

-- 20ˆ11 *#(%+&+5#6%$*#(078 ,$%(#$ ''%°+$"

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)

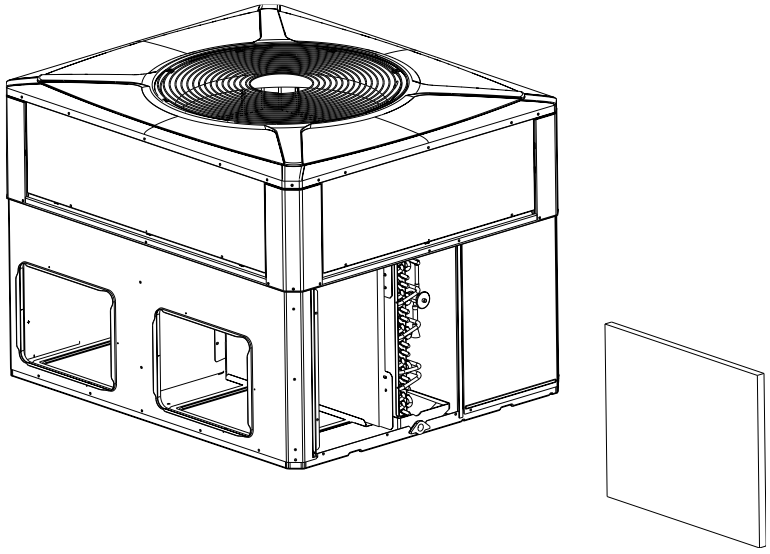
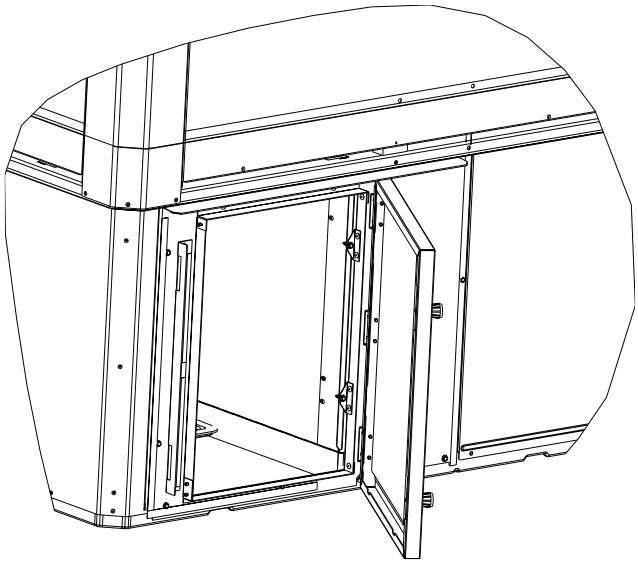


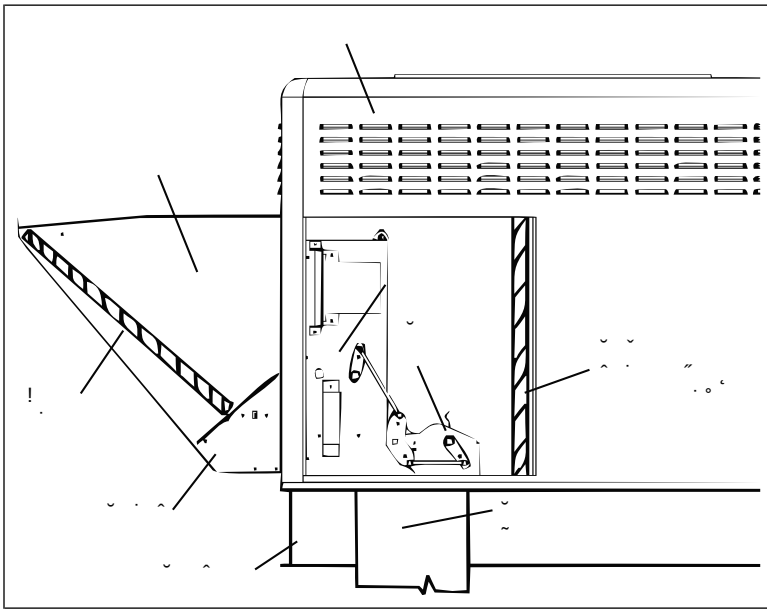
Figure 5. BAYACCDOR1A Hinged Filter Access Door (2.0 – 3.0 Ton Models)
BAYACCDOR2A (3.5 – 5.0 Ton Models)
Replaces Filter/Coil Access Panel



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.*

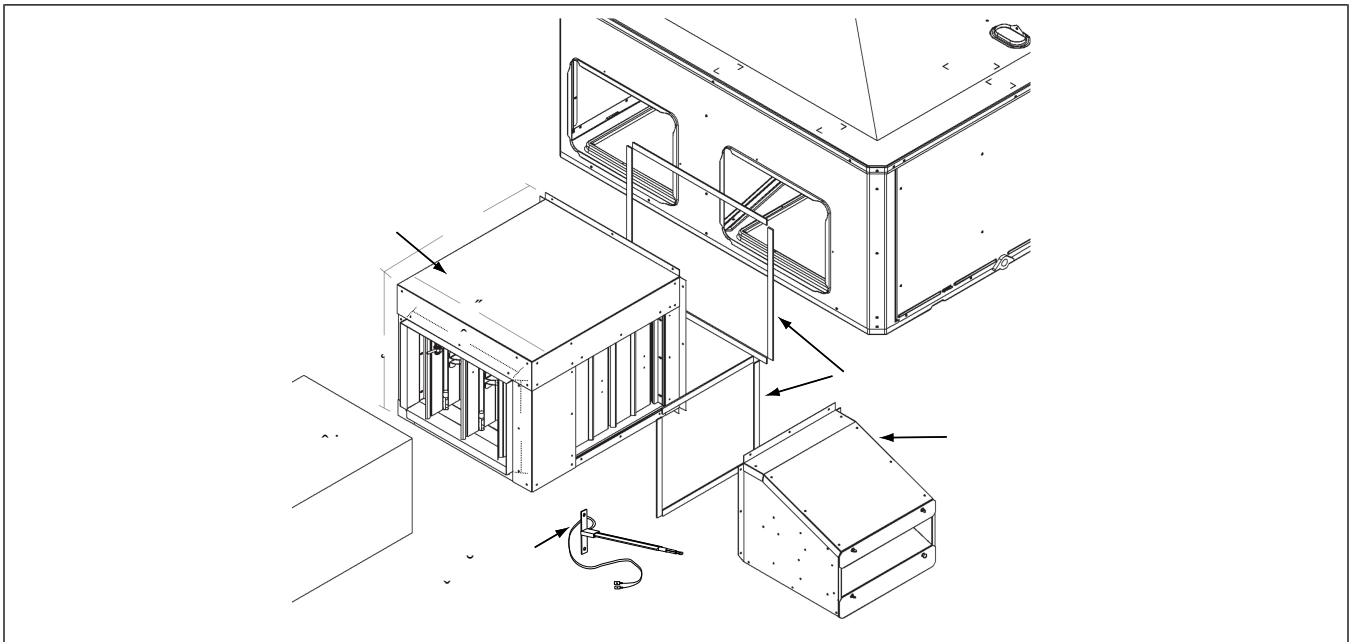
Optional Equipment — Economizer

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



5#^#6˘%.$	^˘& --(˘5'&˘#^ #/.(7
BAYECON101A	2.0 — 3.0 Ton Models
BAYECON102A	3.5 — 5.0 Ton Models

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

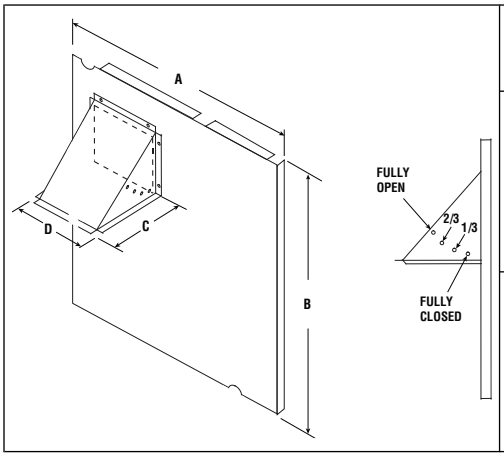


5#^#6˘%.$	#/.(7						
BAYECON200A	2.0 — 3.0 Ton	22″	20″	16–7/8″	15–11/16″	11–11/16″	15″
BAYECON201A	3.5 — 5.0 Ton	26″	22–21/32″	19″	17–11/16″	14–11/16″	21–3/8″

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.*

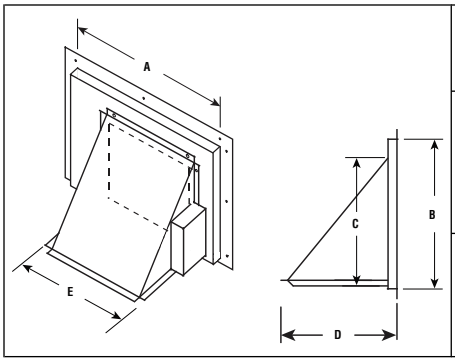
Optional Equipment — Outside Air Damper

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



'^8'($.79 ˇ$ #/.(	^ˇ& --(ˇ5'&ˇ#^ #/.(7				
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)



'^8'($.79ˇ$ #/.(	^ˇ& --(ˇ5'&ˇ#^ #/.(7					
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 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.

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 extinquished.

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.

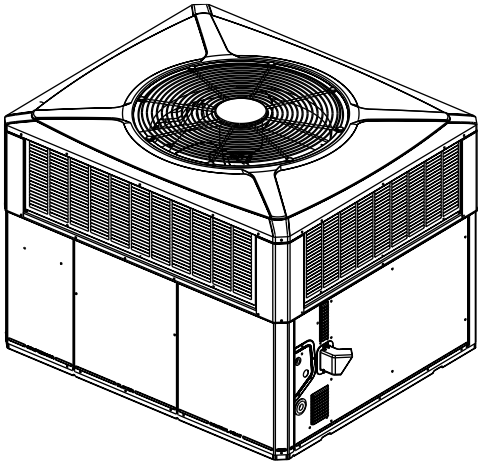
The manufacturer has a policy of continuous data improvement and it reserves the right to change design and specifications without notice. We are committed to using environmentally conscious print practices.

4YCC4048E-SUB-1A-EN 28 Oct 2022
Supersedes (New)

Submittal

Single Packaged
Gas Heating / Electric Cooling

4YCC4060E1090A
4YCC4060E1115A



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

February 2024

4YCC4060E-SUB-1C-EN

RTU-5, RTU-7
4YCC4060E1090A

Product Specifications

SEE NOTE ON DRAWING STAMP

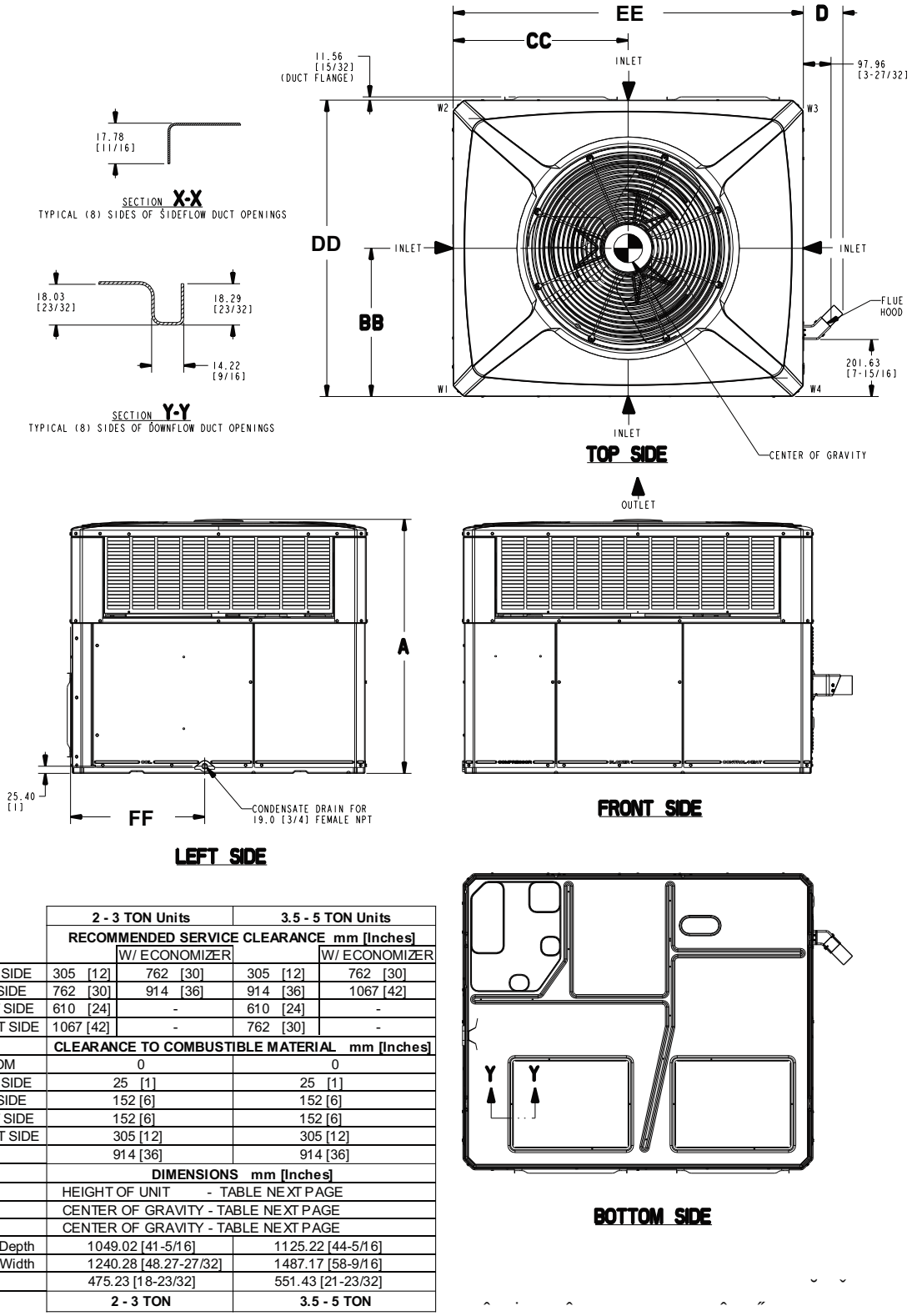
	4YCC4060E1090A	4YCC4060E1115A
RATED Volts/PH/Hz	208–230/1/60	208–230/1/60
Performance Cooling BTUH (a)	57000	57000
Indoor Airflow (CFM)	1770	1770
Power Input (KW)	4.98	4.98
EER2/SEER2 (BTU/ Watt-Hr.)	11.00 / 13.40	11.00 / 13.40
Sound Power Rating [dB(A)] (b)	73.1	73.1
(c)		
Input BTUH-1st Stage (Natural Gas) (d)	90000	115000
AFUE	81	81
Temp. Rise — Min/Max (°F)	30 / 60	30/ 60
Orifice Qty/Drill Sz. (Natural Gas)	3 / #37	3 / #33
. — V/ Ph/Hz	208–230/1/60	208–230/1/60
Min. Brch. Cir. Ampacity (e)	40	40
Fuse Size — Max. (amps)	60	60
Fuse Size — Recmd. (amps)	60	60
	SCROLL	SCROLL
VOLTS/PH/HZ	208–230/1/60	208–230/1/60
R.L. Amps — L.R. Amps	24.4 / 144.2	24.4 / 144.2
	SPINE-FIN	SPINE-FIN
Rows/F.P.I	2 / 24	2 / 24
Face Area (sq. ft.)	22.99	22.99
Tube Size (in.)	3/8	3/8
	PLATE FIN	PLATE FIN
Rows/F.P.I	4/ 15	4 / 15
Face Area (sq. ft.)	5.0	5.0
Tube Size (in.)	3/8	3/8
Refrigeration Control	EXPANSION VALVE	EXPANSION VALVE
Drain Conn. Size (in.)	3/4 FEMALE NPT	3/4 FEMALE NPT
	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	1/3/ 825	1/3/ 825

Volts/Ph/Hz	208–230/1/60	208–230 / 1 / 60
F.L. Amps/L.R Amps	1.7 / 3.5	1.7 / 3.5
	CONSTANT TORQUE ECM	CONSTANT TORQUE ECM
Dia. x Width (in.)	11.87 X 10.68	11.87 X 10.68
Drive/No. Speeds	DIRECT / 4	DIRECT / 4
CFM @ 0.0 in. w.g. (g)	SEE FAN PERF TABLE	SEE FAN PERF TABLE
Motor — HP/R.P.M.	1 / 1050	1 / 1050
Volts/Ph/Hz	208–230/1/60	208–230/1/60
F.L. Amps	7.4	7.4
	CENTRIFUGAL	CENTRIFUGAL
Drive/No. Speeds	DIRECT / 1	DIRECT / 1
Motor — HP/R.P.M.	1/34 / 3075	1/34 / 3055
Volts/Ph/Hz	230/1/60	230/1/60
FLA	0.24	0.25
	NO	NO
Type Recommended	THROWAWAY	THROWAWAY
Recmd. Face Area (sq. ft) (h)	5.3	5.3
	R-410A	R-410A
Charge (lbs.)	9.65	9.65
Subcooling	11°	11°
˘˘˘·˘	1/2	1/2
	H X D X W	H X D X W
Crated (in.)	50 X 47 X 62	50 X 47 X 62
Shipping (lbs.) / Net (lbs.)	580 / 476	586 / 482

(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.

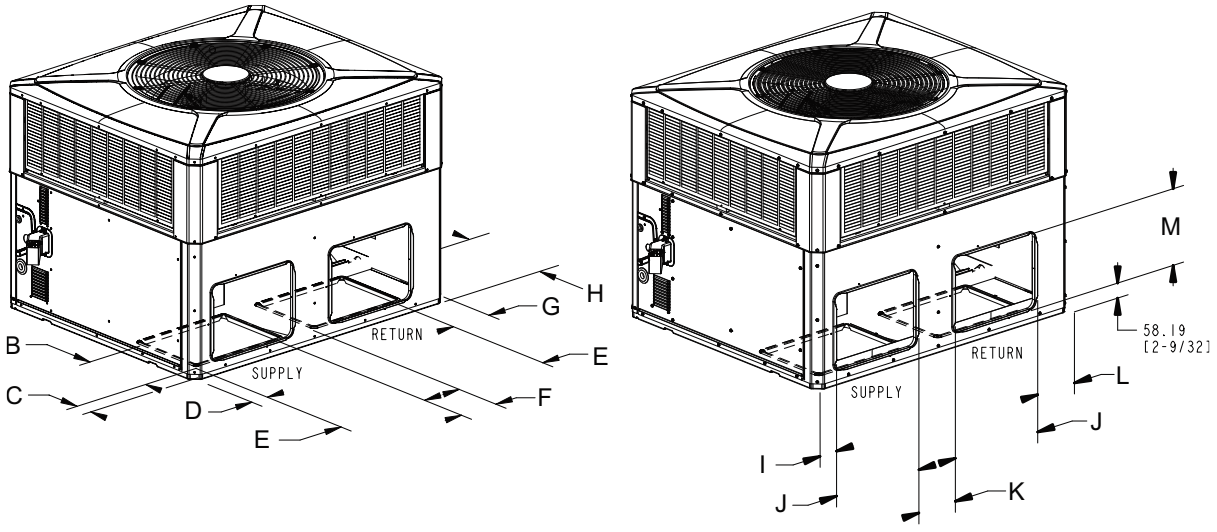
Outline Drawings

Figure 1. 2 - 5 Ton Models



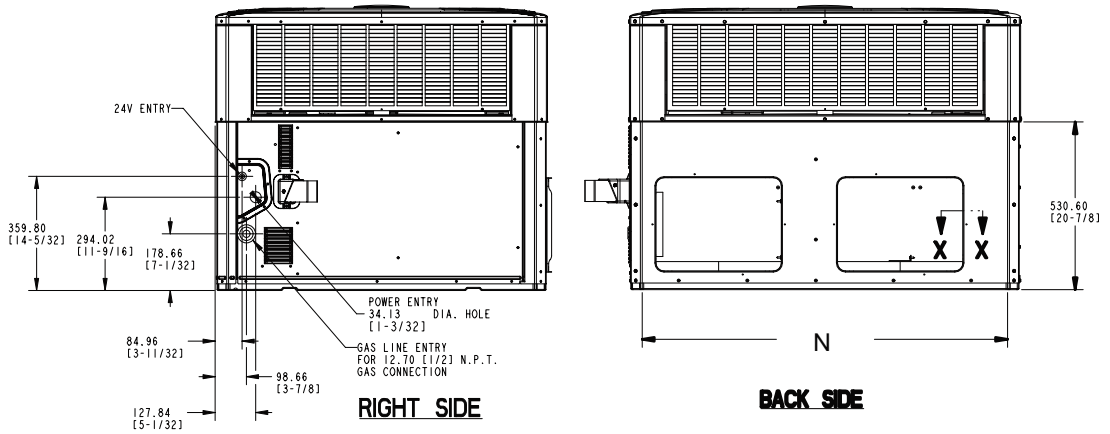
	2 - 3 TON Units		3.5 - 5 TON Units	
	RECOMMENDED SERVICE CLEARANCE mm [Inches]			
		W/ ECONOMIZER		W/ ECONOMIZER
BACK SIDE	305 [12]	762 [30]	305 [12]	762 [30]
LEFT SIDE	762 [30]	914 [36]	914 [36]	1067 [42]
RIGHT SIDE	610 [24]	-	610 [24]	-
FRONT SIDE	1067 [42]	-	762 [30]	-
	CLEARANCE TO COMBUSTIBLE MATERIAL 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	1049.02 [41-5/16]		1125.22 [44-5/16]	
EE -Width	1240.28 [48.27-27/32]		1487.17 [58-9/16]	
FF	475.23 [18-23/32]		551.43 [21-23/32]	
	2 - 3 TON		3.5 - 5 TON	

Figure 2. 2 - 5 Ton Models



BOTTOM DUCT OPENINGS

BACK DUCT OPENINGS



RIGHT SIDE

BACK SIDE

		PHYSICAL DIMENSIONS mm[In]												
	HEIGHT-A mm[inch]	B	C	D	E	F	G	H	I	J	K	L	M	N
4YCC4024	898.53 [35-3/8]	304.80 [12]	75.41 [2.93]	75.41 [2.93]	406.40 [16]	167.89 [6.61]	173.46 [6-27/32]	304.80 [12]	79.50 [3.13]	398.22 [15.68]	176.07 [6.93]	177.55 [6.99]	296.62 [11.68]	1155.45 [45.49]
4YCC4030	949.33 [37-3/8]													
4YCC4036														
4YCC4042	898.53 [35-3/8]	457.20 [18]	75.41 [2.97]	75.41 [2.97]	381.00 [15]	244.09 [9.61]	318.75 [12.55]	381.00 [15]	79.50 [3.13]	449.02 [17.68]	176.07 [6.93]	322.84 [12.71]	372.82 [14.68]	1402.34 [55.21]
4YCC4048	1000.13 [35-3/8]													
4YCC4060														

	Corner Weights KG/LBS				SHIPPING WEIGHT KG/LBS	UNIT WEIGHT KG/LBS	Center Of Gravity mm[inch]	
	W1	W2	W3	W4			BB	CC
4YCC4024* (060)	58 [129]	37 [81]	26 [58]	41 [90]	196 [432]	162 [358]	480 [19]	528 [21]
4YCC4030* (070)	61 [135]	39 [85]	28 [61]	43 [95]	205 [451]	171 [377]	407 [16]	594 [23]
4YCC4036* (070)	61 [134]	39 [84]	28 [60]	43 [95]	205 [438]	171 [374]	407 [16]	594 [28]
4YCC4036* (090)	61 [136]	39 [86]	28 [61]	43 [96]	205 [453]	171 [379]	407 [16]	594 [28]
4YCC4042*(060)	71 [157]	47 [103]	35 [76]	53 [117]	252 [555]	202 [202]	470 [19]	731 [29]
4YCC4042*(090)	72 [158]	47 [104]	35 [78]	54 [118]	255 [561]	207 [202]	470 [19]	731 [29]
4YCC4048*(070)	71 [157]	45 [98]	33 [73]	54 [119]	250 [552]	202 [448]	433 [17]	743 [29]
4YCC4048*(090)	72 [159]	45 [99]	34 [75]	55 [120]	253 [557]	205 [453]	433 [17]	743 [29]
4YCC4060*(090)	77 [170]	46 [101]	35 [76]	58 [128]	263 [580]	216 [476]	433 [17]	743 [29]
4YCC4060*(115)	78 [172]	46 [102]	35 [77]	59 [130]	266 [586]	219 [482]	414 [16]	635 [25]

Indoor Fan Performance

4YCC4060E1090		EXTERNAL STATIC PRESSURE (IN.WG) Horizontal Airflow [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**
Constant Circulation	CFM	APPROXIMATELY 40-50% COOLING OR HEATING AIRFLOW										
	WATTS											
Cooling - Low	CFM	1857 (1831)	1831 (1802)	1800 (1765)	1766 (1728)	-	-	-	-	-	-	-
	WATTS	515 (524)	523 (533)	533 (545)	544 (558)	-	-	-	-	-	-	-
Cooling - Med	CFM	2031 (2003)	2003 (1975)	1974 (1946)	1940 (1913)	1907 (1880)	1874 (1848)	1837 (1811)	1805 (1780)	1771 (1746)	-	-
	WATTS	594 (611)	609 (627)	624 (642)	639 (658)	653 (672)	667 (686)	681 (701)	695 (715)	709 (730)	-	-
Cooling - High	CFM	2083 (2054)	2058 (2030)	2032 (2010)	2003 (1976)	1974 (1946)	1943 (1911)	1911 (1879)	1877 (1848)	1843 (1817)	1807 (1781)	-
	WATTS	749 (770)	759 (781)	769 (790)	779 (804)	788 (819)	803 (832)	816 (845)	830 (858)	845 (872)	860 (887)	-
Heating - Low	CFM	1534 (1541)	1489 (1497)	1445 (1452)	1403 (1410)	1361 (1367)	1314 (1321)	1275 (1281)	1234 (1240)	-	-	-
	WATTS	281 (282)	292 (293)	304 (305)	314 (316)	325 (327)	337 (339)	348 (349)	358 (360)	-	-	-
Heating - High	CFM	-	1594 (1602)	1551 (1558)	1511 (1518)	1471 (1478)	1430 (1437)	1386 (1392)	1344 (1351)	1305 (1311)	1265 (1271)	-
	WATTS	-	348 (350)	361 (363)	373 (374)	384 (386)	396 (398)	409 (411)	420 (423)	432 (434)	443 (445)	-

Note: *Cooling airflow must not exceed 2250 CFM due to condensate blowoff.*

4YCC4060E1115		EXTERNAL STATIC PRESSURE (IN.WG) Horizontal Airflow [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**
Constant Circulation	CFM	APPROXIMATELY 40-50% COOLING OR HEATING AIRFLOW										
	WATTS											
Cooling - Low	CFM	1857 (1831)	1831 (1802)	1800 (1765)	1766 (1728)	-	-	-	-	-	-	-
	WATTS	515 (524)	523 (533)	533 (545)	544 (558)	-	-	-	-	-	-	-
Cooling - Med	CFM	2031 (2003)	2003 (1975)	1974 (1946)	1940 (1913)	1907 (1880)	1874 (1848)	1837 (1811)	1805 (1780)	1771 (1746)	-	-
	WATTS	594 (611)	609 (627)	624 (642)	639 (658)	653 (672)	667 (686)	681 (701)	695 (715)	709 (730)	-	-
Cooling - High	CFM	2083 (2054)	2058 (2030)	2032 (2010)	2003 (1976)	1974 (1946)	1943 (1911)	1911 (1879)	1877 (1848)	1843 (1817)	1807 (1781)	-
	WATTS	749 (770)	759 (781)	769 (790)	779 (804)	788 (819)	803 (832)	816 (845)	830 (858)	845 (872)	860 (887)	-
Heating - Low	CFM	1827 (1815)	1792 (1790)	1757 (1757)	1721 (1712)	1685 (1679)	1646 (1648)	1605 (1613)	1570 (1574)	-	-	-
	WATTS	492 (510)	505 (520)	517 (532)	529 (549)	541 (560)	553 (570)	566 (582)	577 (596)	-	-	-
Heating - High	CFM	-	1927 (1910)	1894 (1875)	1861 (1839)	1824 (1803)	1788 (1773)	1750 (1736)	1711 (1704)	1674 (1661)	1639 (1622)	-
	WATTS	-	614 (630)	627 (634)	639 (647)	651 (660)	664 (672)	677 (685)	689 (698)	702 (712)	715 (726)	-

Note: *Cooling airflow must not exceed 2250 CFM due to condensate blowoff.*

Indoor Fan Performance

To set indoor motor for the desired speed options, connect the motor leads in the taps as shown below:

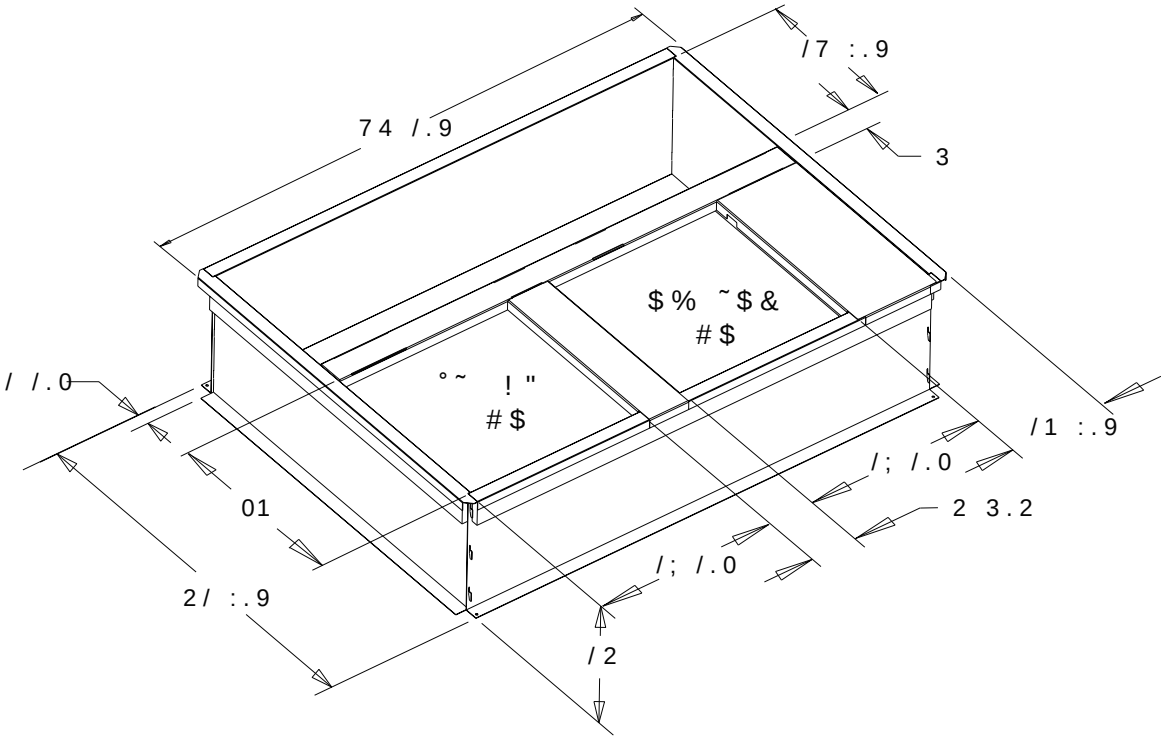
Table 1. Motor Wiring: 4YCC4024 - 42, 4YCC4060

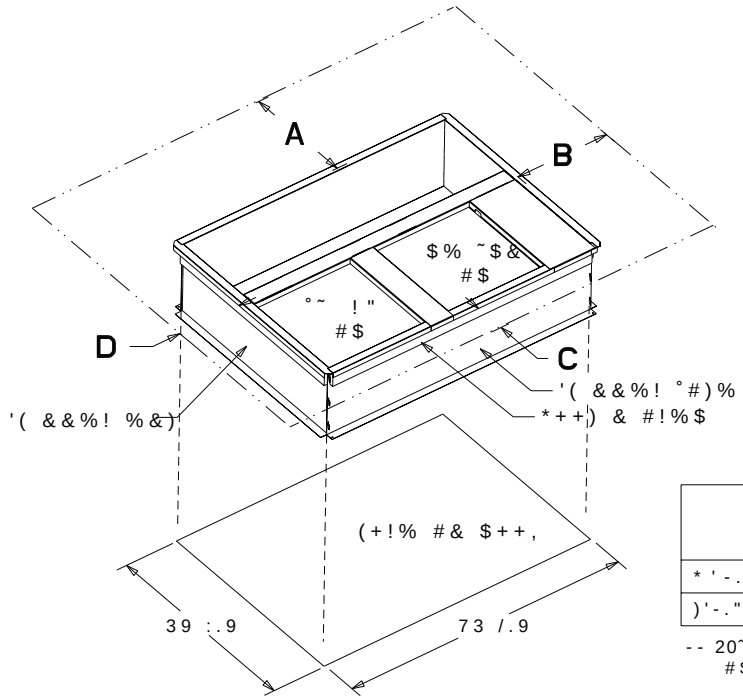
MOTOR WIRING	MOTOR TAP				
MODE/SPEED	1	2	3	4	5
CONSTANT CIRCULATION	G (GR)				
COOLING-LOW & HEATING-LOW	G (GR)	Y (YL)		W (PR)	
COOLING-LOW & HEATING-HIGH	G (GR)	Y (YL)			W (PR)
COOLING-MED & HEATING-LOW	G (GR)		Y (YL)	W (PR)	
COOLING-MED & HEATING-HIGH	G (GR)		Y (YL)		W (PR)
COOLING-HIGH & HEATING-LOW	G (GR)			W (PR)	Y (YL)
COOLING-HIGH & HEATING-HIGH	G (GR)			Y (YL)	W (PR)
G signal (GR - green wire), Y signal (YL - yellow wire), W signal (PR - purple wire)					

Full Perimeter Roof Mounting Curb

Figure 3. 3.5 — 5.0 Ton Models

BAYCURB051A Full Perimeter Roof Mounting Curb





	SERVICE CLEARANCE DIMENSIONS			
	A	**B**	**C**	**D**
*'-.'-	2011	3411	/0^11--	0211
)'-."'-	2011	3411	/0^11--	3411

-- 20^11 *#(%+&+5#6%$*#(078 ,$%(
#$ ''%°+$"

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)

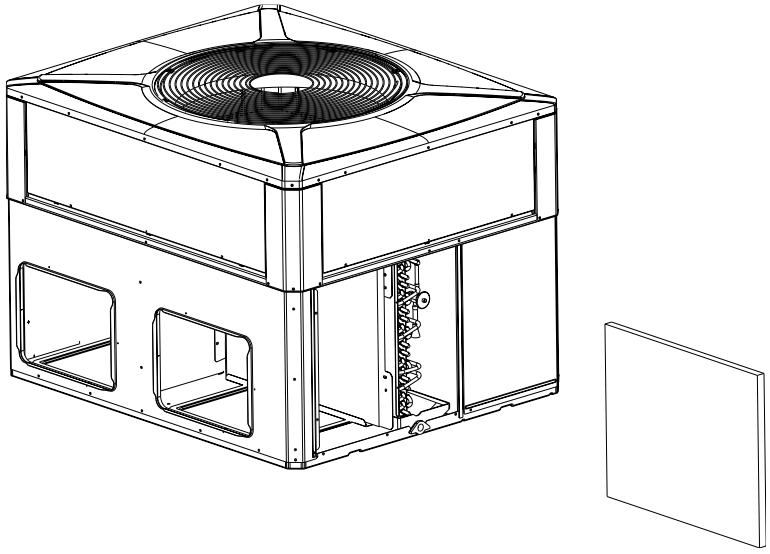
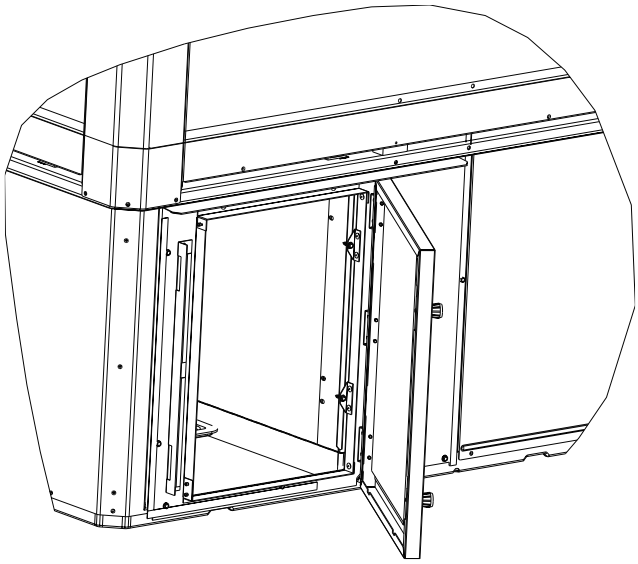


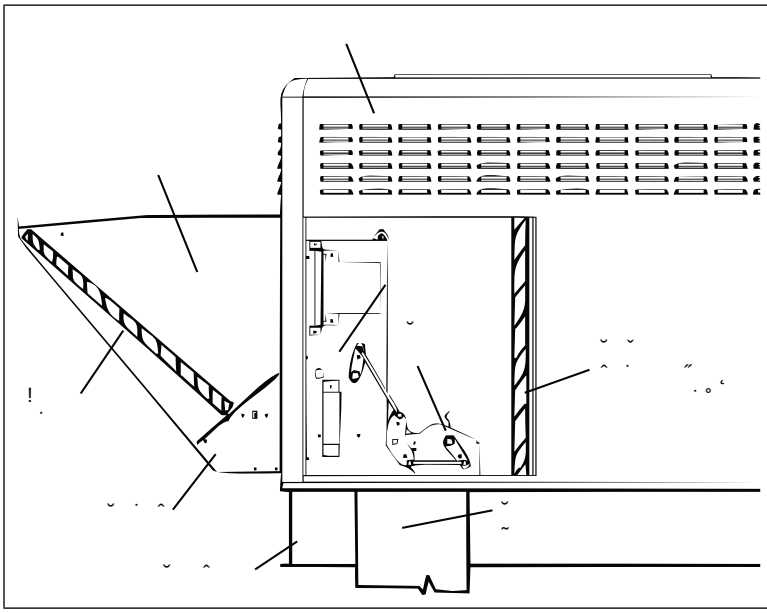
Figure 5. BAYACCDOR1A Hinged Filter Access Door (2.0 – 3.0 Ton Models)
BAYACCDOR2A (3.5 – 5.0 Ton Models)
Replaces Filter/Coil Access Panel



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.*

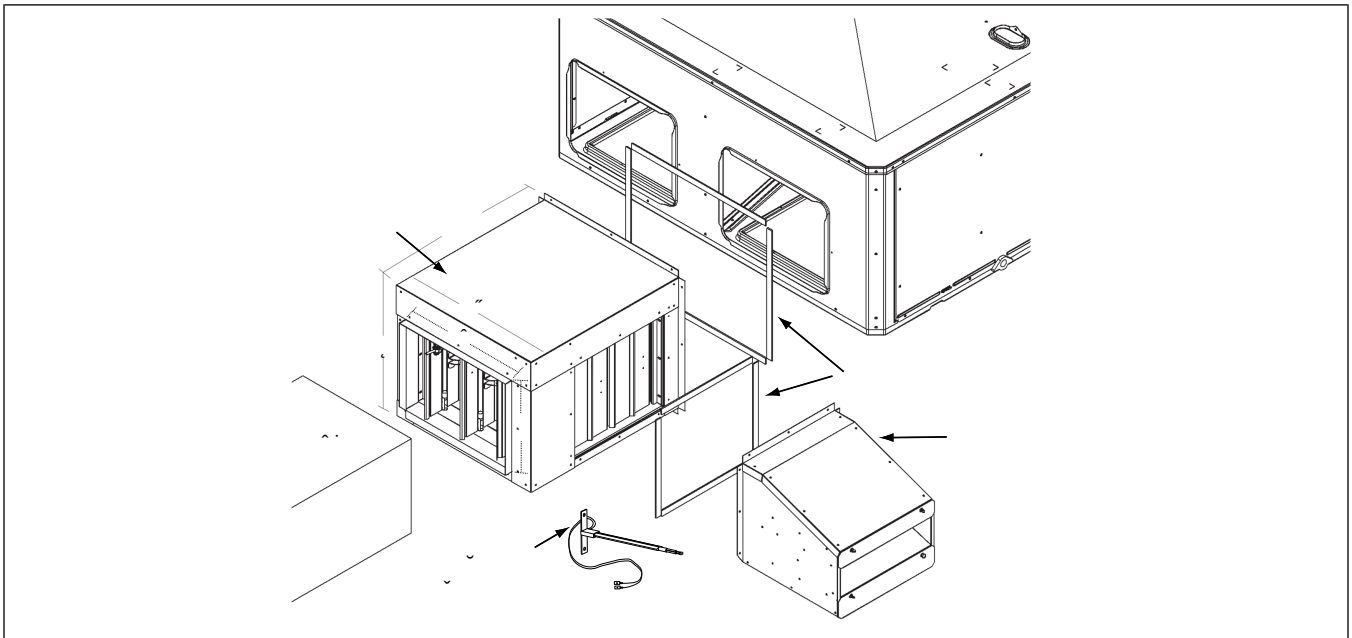
Optional Equipment — Economizer

Table 2. BAYECON101,102A Down Discharge Economizer and Rain Hood (Mounts Over Horizontal Return Air Opening)



5#^#6˘%.$	^˘& --(˘5'&˘#^ #/.(7
BAYECON101A	2.0 — 3.0 Ton Models
BAYECON102A	3.5 — 5.0 Ton Models

Table 3. BAYCON200,201A Horizontal Economizer and Rain Hood

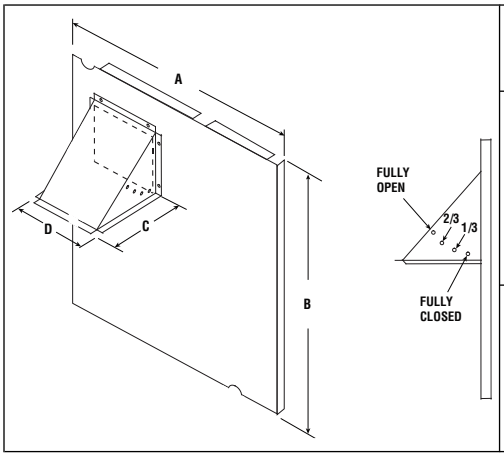


5#^#6˘%.$	#/.(7						
BAYECON200A	2.0 — 3.0 Ton	22″	20″	16–7/8″	15–11/16″	11–11/16″	15″
BAYECON201A	3.5 — 5.0 Ton	26″	22–21/32″	19″	17–11/16″	14–11/16″	21–3/8″

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.*

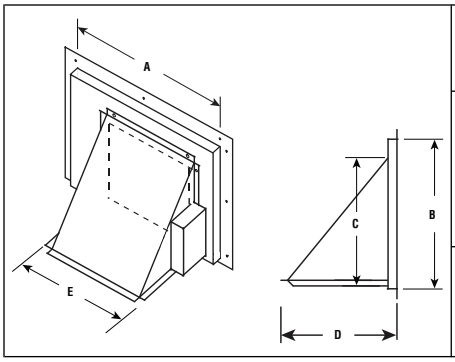
Optional Equipment — Outside Air Damper

Table 4. BAYOSAH001 and 002A Outside Air Damper (Replaces Filter/Coil Access Panel



'^8'($.79 ˇ$ #/.(	^ˇ& --(ˇ5'&ˇ#^ #/.(7				
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 5. BAYDMPR101 and 102A, 25% Motorized Outside Air Damper (Mounts Over Horizontal Return Air Opening)



'^8'($.79ˇ$ #/.(	^ˇ& --(ˇ5'&ˇ#^ #/.(7					
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 (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.

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 extinquished.

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.

4YCC4060E-SUB-1C-EN 09 Feb 2024
Supersedes 4YCC4060E-SUB-1B-EN (December 2022)