

TECHNICAL SPECIFICATIONS FOR MODEL YWMA

DOAS P125 ROOFTOP UNIT WITH HYDRONIC COOLING AND OPTIONAL GAS OR ELECTRIC HEAT



In keeping with our policy of continuous product improvement, we reserve the right to alter, at any time, the design, construction, dimensions, weights, etc., of equipment information shown here.

OPTIONS

Power

- Unit mounted disconnects switch
- Dual disconnect
- 208/230/460/575V, 3 phase
- Field Install Disconnect, fusible, outdoor, UL

Chilled & Hot Water Coils

Hot Water

Customer Configurable Hot Water Coils

- 1 or 2 Row Coil
- 8, 10, 12 & 14 FPI

Chilled Water

Customer Configurable Chilled Water Coils

- 4 or 6 Row Coil
- 8, 10, 12 & 14 FPI
- Coil Tubing: 5/8" or 1/2" Diameter
- Aluminum Fin Material with 0.006", 0.008" and 0.010" thickness
- Cooper Fin Material with 0.006", 0.008" and 0.010" thickness
- 304 or 316 SS Casing with 14 or 16 GA material
- ½" Coil Connections
- Hinge Door Access
- Rust Proof Double Sloped Drain Pan

Heat (Indirect Fired Natural Gas Heat - Optional))

- Gas Heat 50-800 MBH
- 81% Steady State Thermal Efficiency
- 90+% Steady State Thermal Efficiency
- Natural gas
- Propane
- Elevation Adjustment
- 409 SS heat exchanger
- 5:1 Single Stage Gas Modulation (17-100%)
- 10:1 Dual Stage Gas Modulation (17-100%)(Dual Furnaces)
- Gas manifold
- High and low gas pressure switches
- Flue extension kits
- Heating Condensate pump
- Heat Condensate neutralizer Kit

Heat (Electric)

- 20 to 120 kW heat
- SCR modulation

Miscellaneous Options

- Condenser Hail guard
- 5 year gas furnace warranty
- 10 year gas heat exchanger warranty
- 5 year elec heat furnace warranty
- 2 year all parts warranty

Unit Controls (not available in hydronic heating/cooling)

- Space temperature control w/thermostat
- Makeup air control sequence
- Variable Air Volume
- Remote exhaust fan start/stop
- Space mounted CO2 sensor
- Return air humidity sensor
- Smoke detector (duct mounted)
- Firestat
- Dirty Filters Indication
- Phase Loss Monitor
- BacNet Communication
- Handed Held Unit Display
- Wall Mounted Unit Display
- Convenience outlet

Supply Fan Control

- High-Low volume control
- 0-10V input signal for fan control
- BMS control through BacNet point
- Fan RPM by duct static pressure sensor (0-2.5 w.c.)
- RPM by building static pressure sensor (+0.5 w.c.)
- 2-speed CO2 control (high/low)
- RPM by supply fan CFM
- Occupied/unoccupied speed
- Constant volume - summer/winter

Supply & Exhaust Fan

- ECM Direct Drive (modulating)
- Variable Frequency Drive (modulating)

Exhaust Fan Control

- High/Low Exhaust Fan Speed
- Building Static Pressure (± 0.5 " w.c.)
- Supply Fan Tracking (Adj Offset)
- Constant Volume Control
- BMS Control through BacNet
- 2 Speed CO2 Control (High/Low)
- Constant Exhaust CFM
- Occupied and Unoccupied Speed
- Exhaust Fan CFM Control via Supply Fan Tracking"

OPTIONS (cont.)

Intake & Damper Options

- Single unit opening, horizontal
- Single unit opening, vertical
- OA Damper / Open Return
- OA Damper / No Return
- OA & RA Damper
- OA Damper, Power Exhaust
- OA Damper, Gravity Exhaust Damper
- OA & RA dampers, Gravity Relief exhaust
- OA & RA Damper, Power exhaust
- OA Damper, ERV, Power Exhaust
- OA & RA damper, ERV, Power Exhaust
- Outside air hood with bird screen
- Outside Air Hood with prefilters
- 4" MERV 8 Filters - shipped in unit
- 4" MERV 13 Filters – shipped in unit
- Extra Set : 4" MERV 8 Filters
- Extra Set: 4" MERV 13 Filters

Intake Damper Control

- External 0-10 input signal
- User adjustable 2 position control
- 4 position control
- Economizer package w/ CO2 control
- User adjustable 2 position control

Curbs

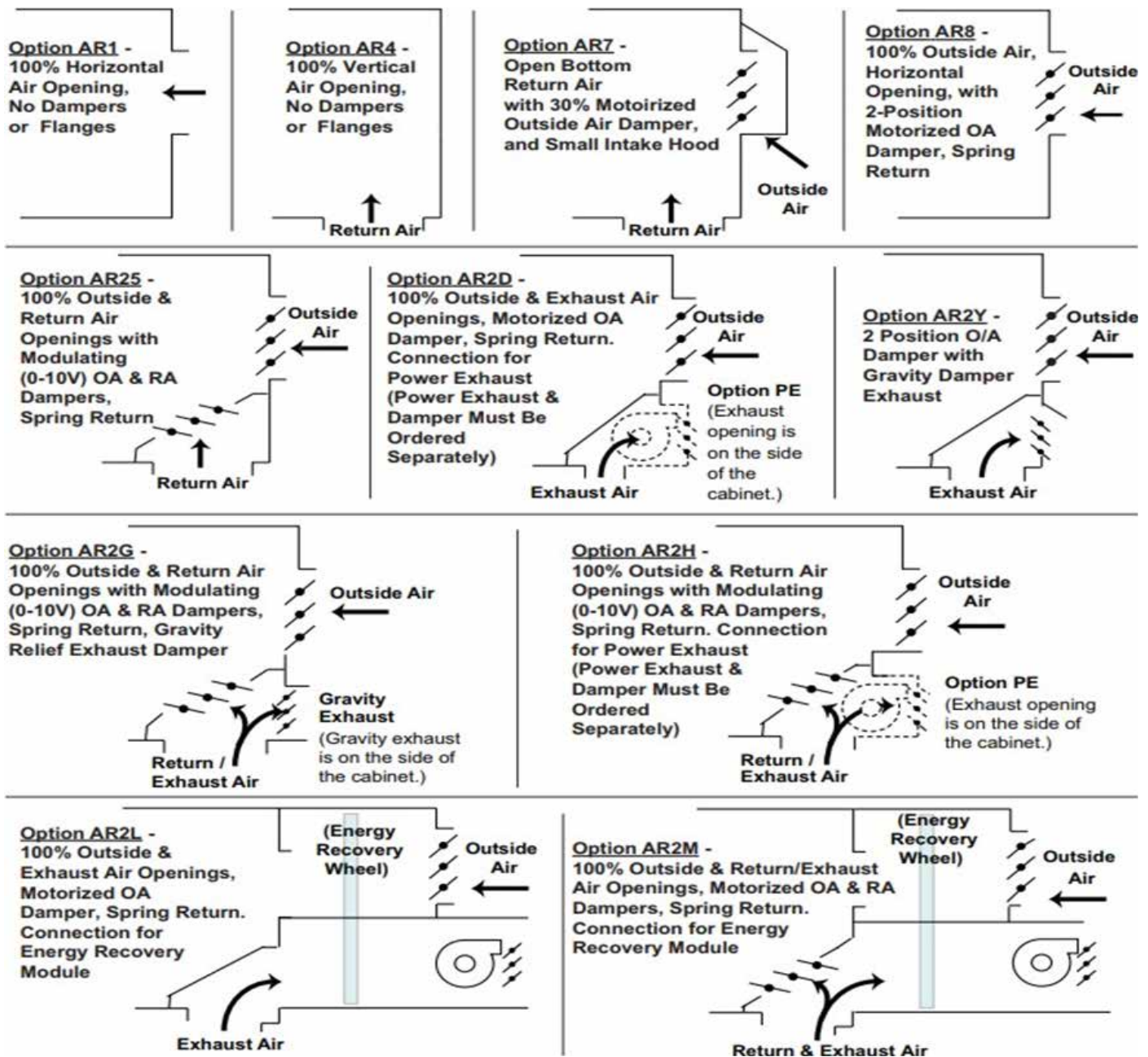
- 16" height, vert discharge, no ERV, exposed external insulation
- 16" height, vert discharge, ERV, exposed external insulation
- 36" height, horiz discharge, no ERV, double wall insulation
- 36" height, horiz discharge, ERV, double wall insulation

Hydronic Units

- All controls provided by others
- Units wired to terminal strips
- Control voltage: The supplied control transformers are intended only for factory-controlled circuits. They are not to be used as a control voltage source for any third-party devices, with the exception of what is shown on the wiring diagram provided with the unit.
- Chilled water control: The chilled water valve and actuator are controlled and provided by others.
- Sensors: Sensors and accessories not shown on the wiring diagram provided with the unit are provided by others.
- Damper control: The unit's 100% outside air damper is factory-provided with a 24V actuator that is wired to the blower with an end switch interlock. Damper actuation is started from the Unit Enable/Supply Fan Command point (see: Control Connection Points for Customer Use Table).
- Supply fan control: The supply fan is started from the Unit Enable/Supply Fan Command point (see: Control Connection Points for Customer Use Table). Fan speed operates in response to the Supply Fan Speed Command point. The fan is not permitted to operate until the unit's 100% outside air damper is proven via a factory-wired damper.
- Gas heat control: The unit's modulating heat section requires a dry contact closure via the **Heating Stage 1 Command** point (see: Control Connection Points for Customer Use) and a minimum of 4V applied to the **Gas Heating Modulating Command** point (see: Control Connection Points for Customer Use) until the **Gas Heater 1 Status** point (see: Control Connection Points for Customer Use) provides ignition. The two-stage fixed capacity heat exchanger requires dry contact closures for **Heating Stage 2 Command** and **Heating Stage 3 Command**.

Control Connection Points for Customer Use*				
Connection Type	Connection Point	Carel Controller Equivalent**	Signal Type	Signal Range
Input	Supply Fan Speed Command	--	0-10 VDC	0-100% speed
	Gas Heating Modulation Command	Heat Capacity	2-10 VDC	0-100% capacity
	Unit Enable/Supply Fan Command	--	Dry contact	--***
	Heating Stage 1 Command	Stg 1	Dry contact	
	Heating Stage 2 Command	Stg 2	Dry contact	
	Heating Stage 3 Command	Stg 3	Dry contact	
Output	Gas Heater 1 Status	--		
	Gas Heater 2 Status	--		
*For specific wiring termination details, refer to the wiring diagram provided with the unit.				
**Heat command field on Carel controller display screen used in Y series installation manual D300530 I-Y.				

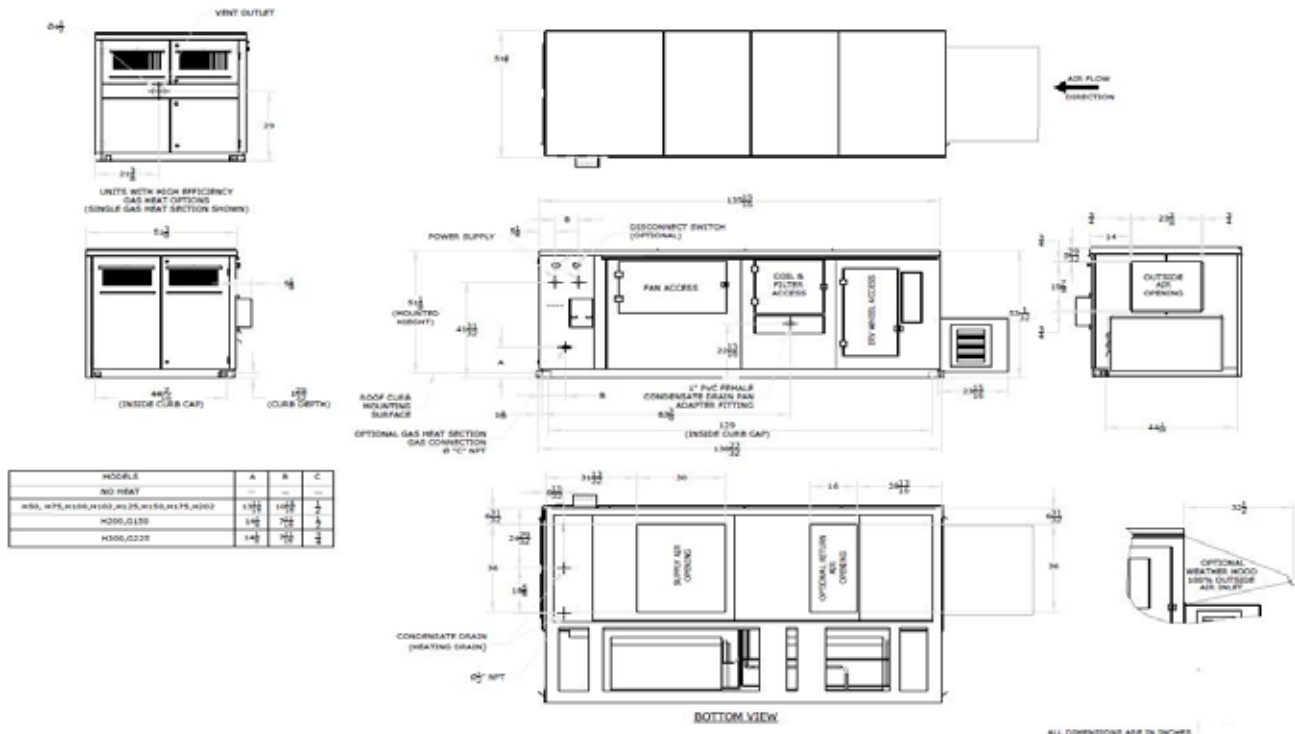
OPTIONS (cont.)



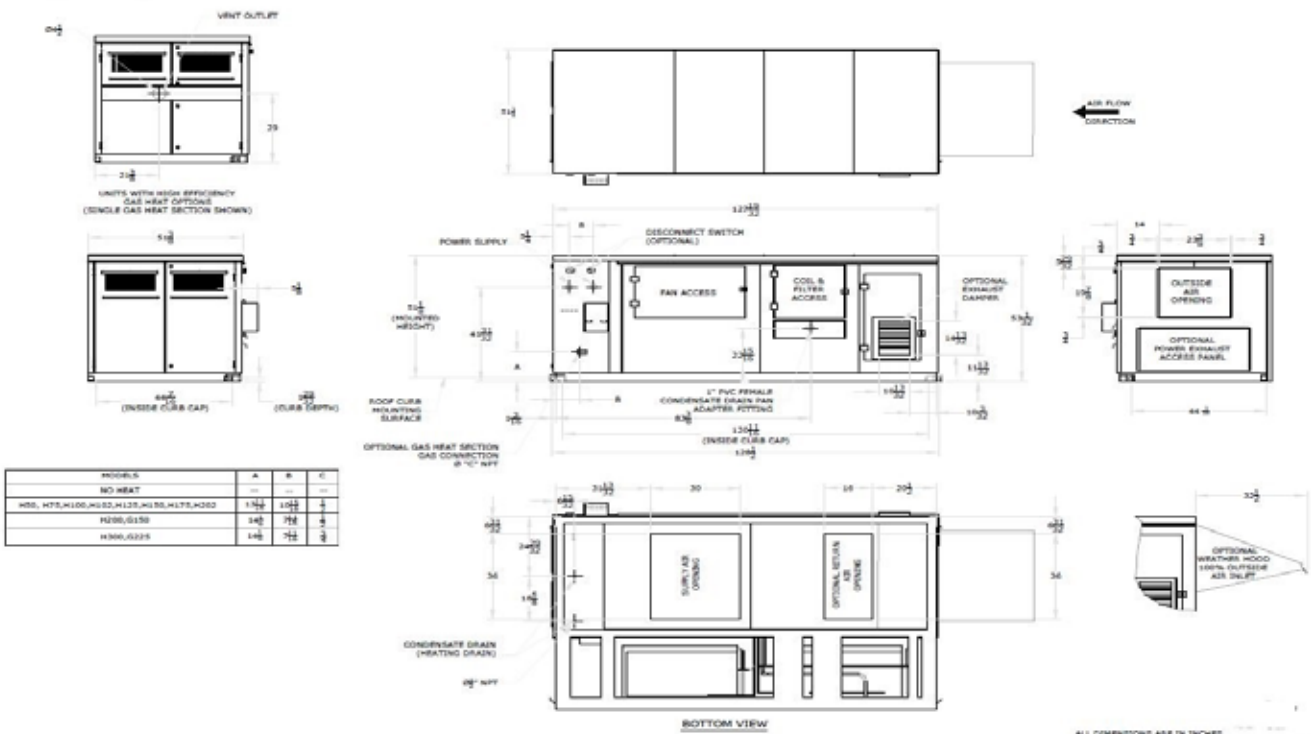
Model YWMA	01A	01B	120	150
CFM Range Hydronic Coils	775-3552	760-2400	1200-5500	2040-9000
CFM Range Gas Heating (Only)	775-4000	775-4000	1000-6000	1000-9000
Base Weight	1394	1649	1868	2340
Unit Power	208-230/460/60Hz			
Supply Fan Type	7 Blade Single Inlet Aluminum Backward Curve Centrifugal Fan			
Fan Motor Type	Electronically Commutated Motor Total Enclosed Motor with ABB Drive			
Control Type	Variable RPM by Control System			
Hydronic Cooling Coil (requires glycol)				
Maximum Size (l x h)	31" x 30"		40" x 36"	51" x 48"
Rows / FPI	1-6 Row / 8-14 FPI			
Hydronic Heating Coil (requires glycol)				
Maximum Size (l x h)	31" x 30"		40" x 36"	51" x 48"
Rows / FPI	1-2 Row / 8-14 FPI			
Gas Heat				
Fuel Type	Natural Gas (propane conversion kit)			
Input Capacity (MBH) (90% Thermal Efficiency)	50, 75, 100, 125, 150, 175, 200, 250, 300	75, 100, 125, 150, 175, 200, 250, 300, 400	125, 150, 175, 200, 250, 300, 400, 500, 600	200, 250, 300, 400, 500, 600, 700, 800
Input Capacity (MBH) (90% Thermal Efficiency)	150, 225	150, 225, 300	150, 225, 300, 375, 450	225, 300, 375, 450, 525, 600
Minimum & Maximum Temperature Rise	20-100°F			
Modulation Range	5:1 (4:1 with LP) (10:1 Dual Burner Units)			
Electric Heat				
Fuel Type	Electric Coils			
Input Capacity (KW)	20, 30, 40, 50, 60, 70, 80, 90	20, 30, 40, 50, 60, 70, 80, 90, 120	20, 30, 40, 50, 60, 70, 80, 90, 120	30, 40, 50, 60, 70, 80, 90, 120
Control	SCR 0-100% Capacity Control			

DIMENSIONS

YWMA-CABINET 1-01A-DX-ERM

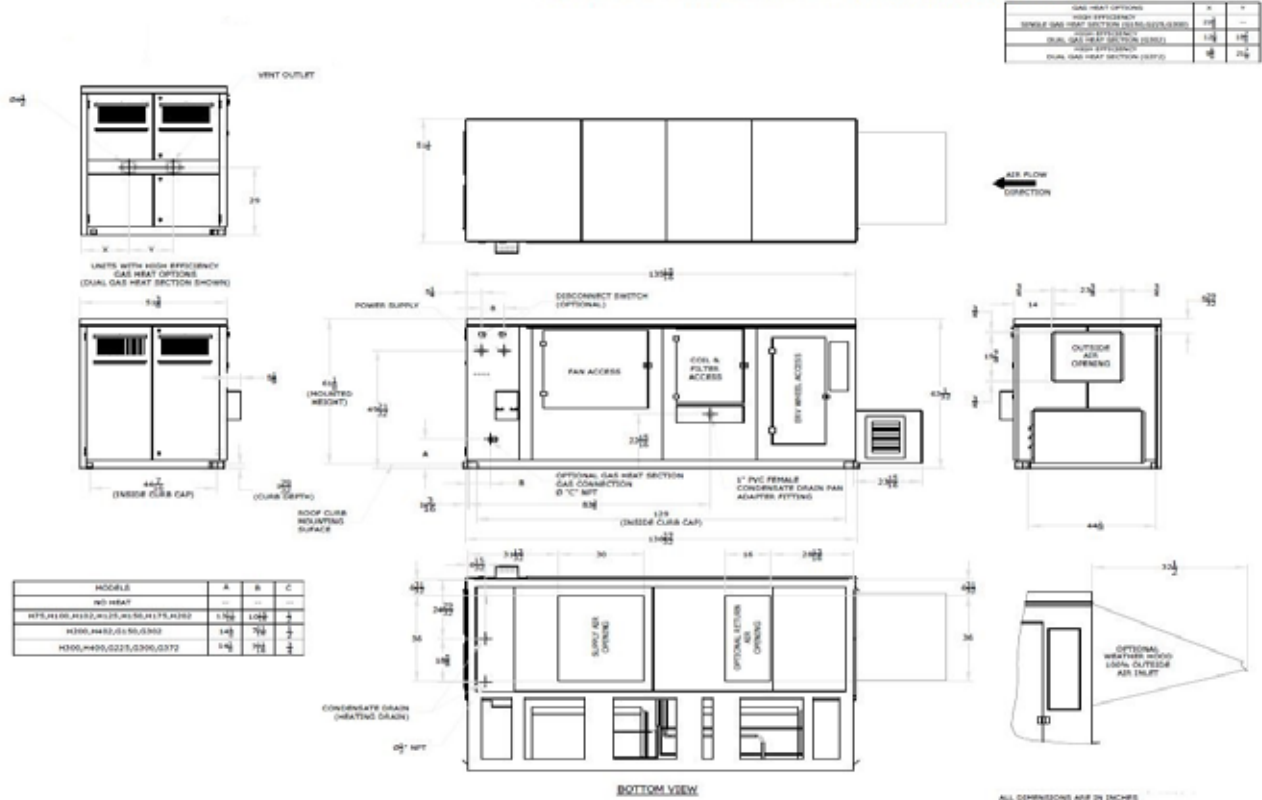


YWMA-Cabinet 1-01A-DX

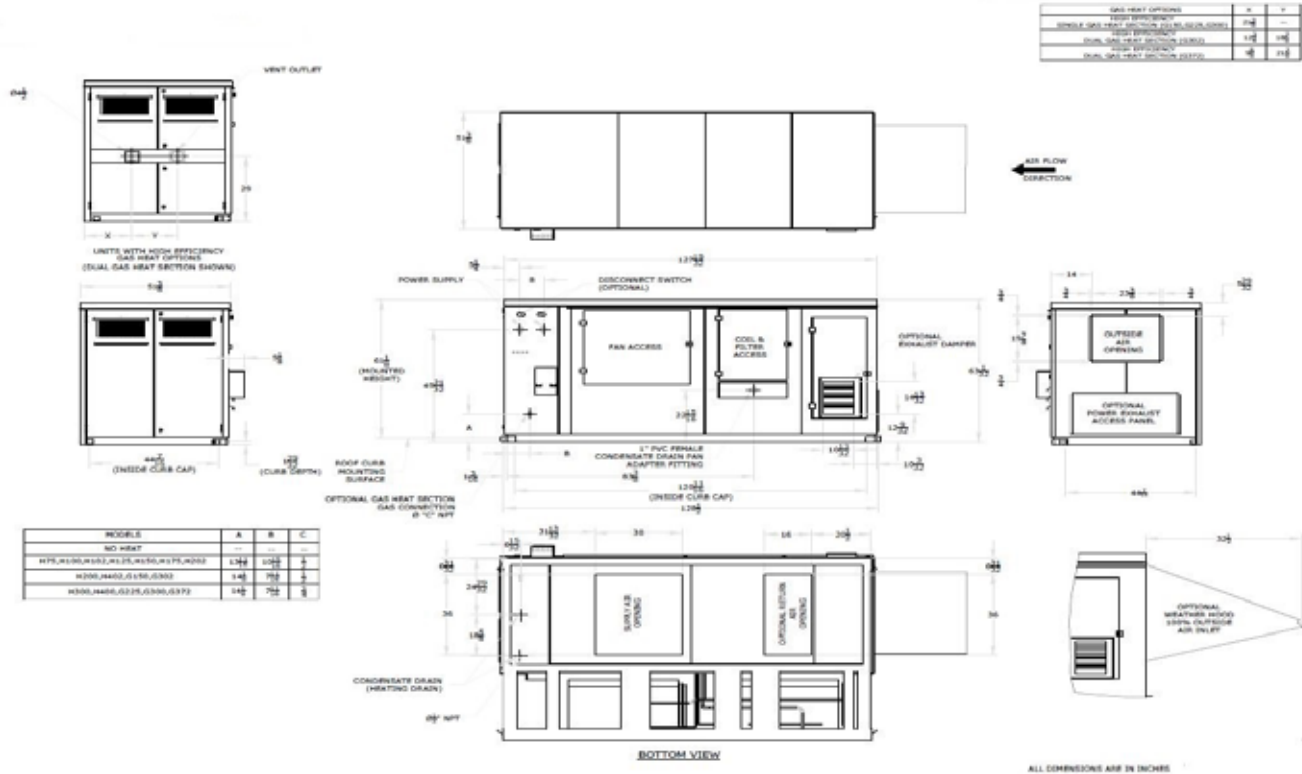


DIMENSIONS (cont.)

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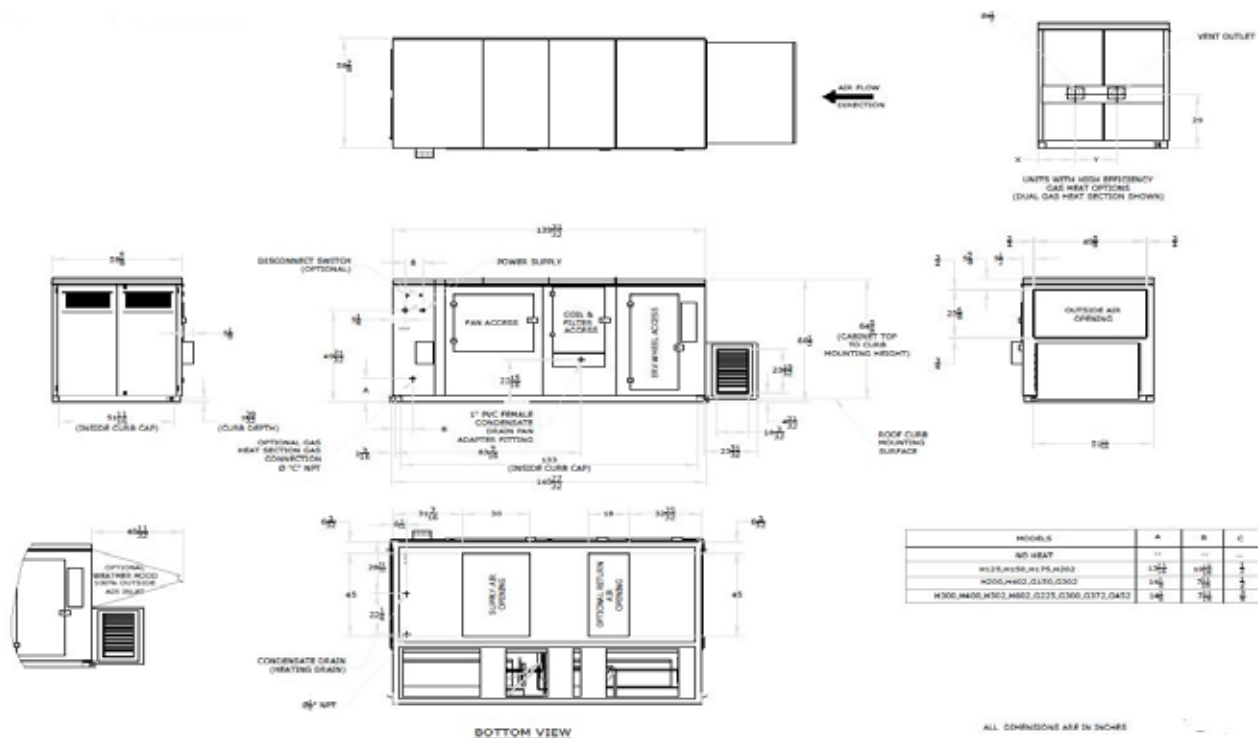


YWMA-CABINET 2-01B-DX

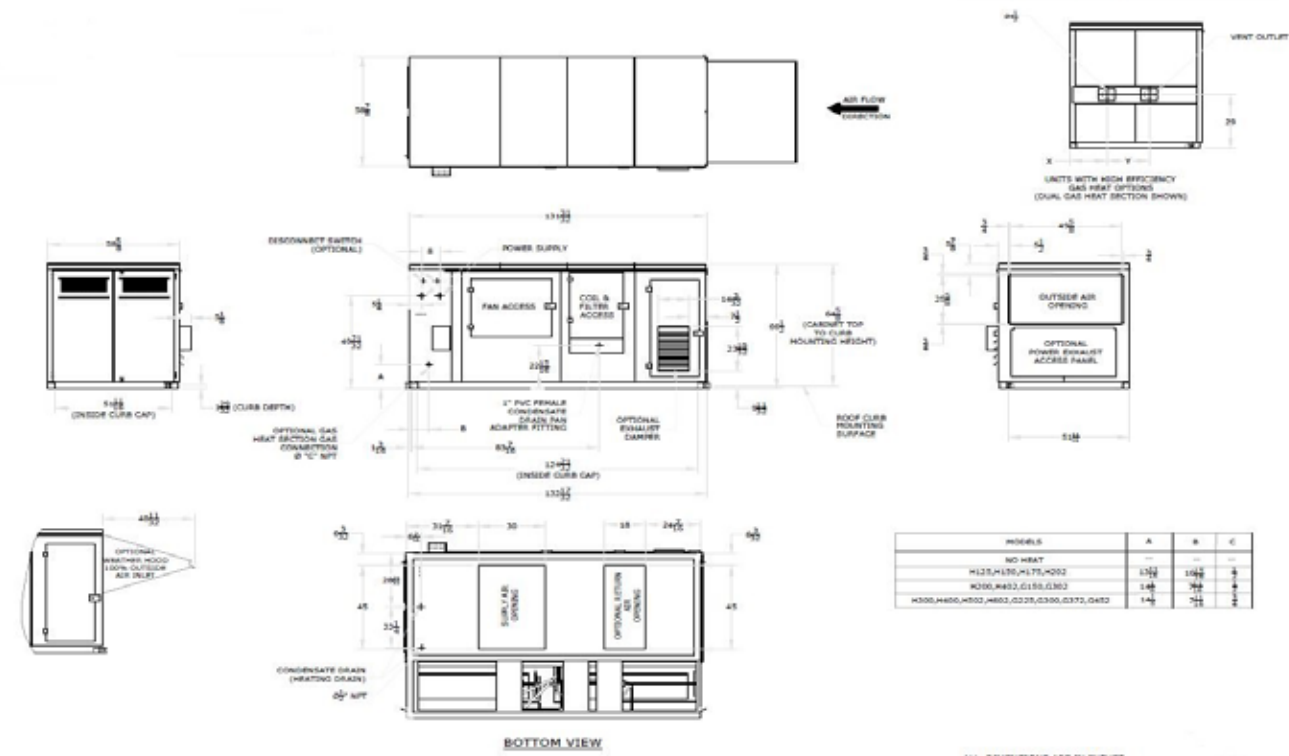


DIMENSIONS (cont.)

YWMA-CABINET 2-02-DX-ERM

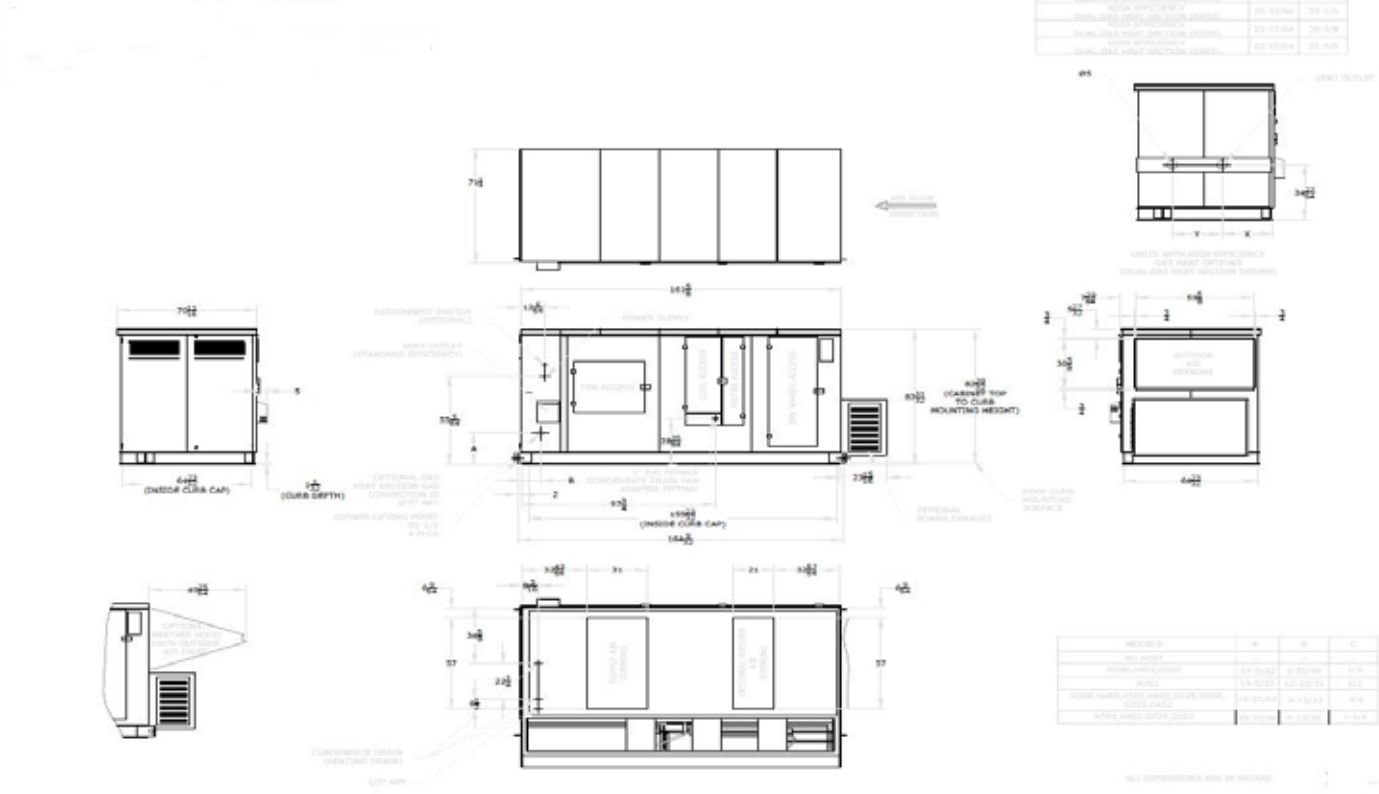


YWMA-CABINET 2-02-DX

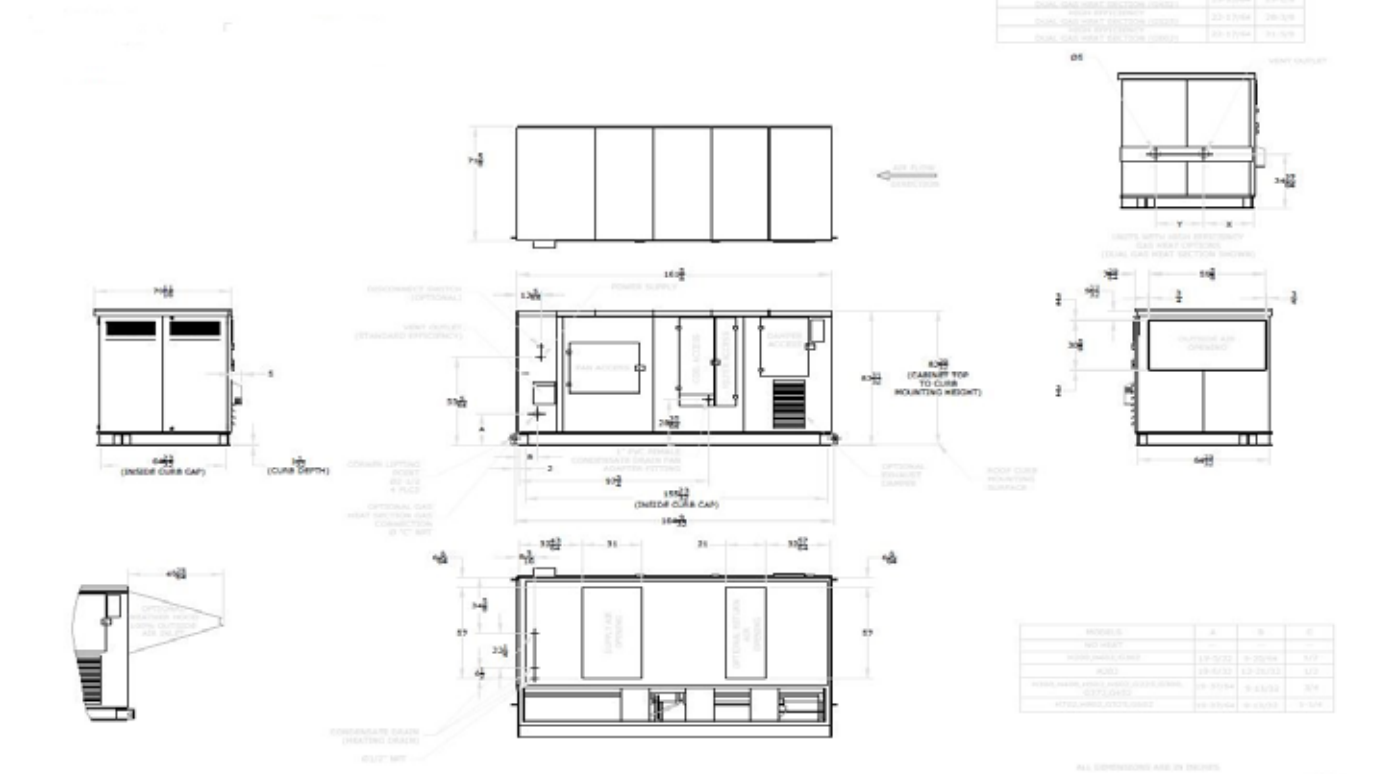


DIMENSIONS (cont.)

YWMA-CABINET 3-03-DX-ERM



YWMA-CABINET 3-03-DX



For more information on Reznor HVAC products:

- **Contact your local Reznor representative at 1-800-695-1901**
- **Refer to the manuals and additional consumer materials found at www.reznorhvac.com**

