



# Alpha Aire

**Dedicated Outdoor Air System, VAV,  
Air-Source Heat Pump with Energy Recovery**

- **100 to 500 CFM**
- **Air-Cooled Self Contained**
- **Air-Source Heat Pump**
- **All Indoor Installation**
- **Direct Expansion  
w/ Energy Recovery**
- **One Size Fits All**
- **Variable Air Volume**



# Let the Fresh Air In!



## The Newest All-Indoor Solution by United CoolAir

Indoor air quality can be adversely affected by many factors. Indoor pollutants can lead to a variety of health risks, especially for those already susceptible to such factors. Studies show that introducing conditioned outside air can lead to better health and per-

formance of occupants in a variety of settings. ASHRAE 62.1-2016 requires minimum OSA per code. Alpha Aire is the first choice in introducing fresh air into buildings for a simple and quick installation for challenging or existing retrofit applications.

## Alpha Aire Features & Options

United CoolAir uses high-density **2" thermal/acoustic insulation Solid Double Wall** along with low airflow to greatly reduce noise for near occupant operation. Critical components are isolated out of the air stream for longer life, and thermal

breaks prevent unwanted condensate formation. Single point electrical power and 8" flex duct make for a low cost installation. The sheet metal is G90 galvanized steel with optional wet paint finish for durability and long life.

### FEATURES

- 100–500 CFM
- 2" Merv 8 pleated throwaway filters
- 2" Solid double wall
- 208/230-1 power
- Auxiliary Reheat Coil
- Dual Energy recovery Devices
- ECM fans
- Field convertible return/supply air panel (Horizontal only)
- Heat pump
- Self contained DX system
- Single Packaged Horizontal or Vertical Configurations
- Stainless steel drain pans
- Up to 1" of ESP
- Variable Air Volume Capable (Through BMS)

### OPTIONS

- 4" MERV 11 or 13 filters
- Buck Boost Transformer
- CO2 switch
- Coated Coils
- External condensate pump
- Floor Stand
- Non-fused disconnect
- Occupancy switch
- Painted cabinet (Wet paint)
- Smoke detector
- Trap/Switch Combo
- VOC switch

### VENTILATION RATES PER ASHRAE 62.1-2016 \*

Based on TABLE 6.2.2.1 Minimum Ventilation Rates in Breathing Zone

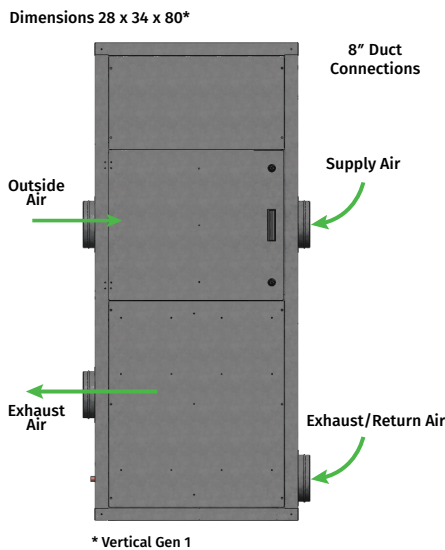
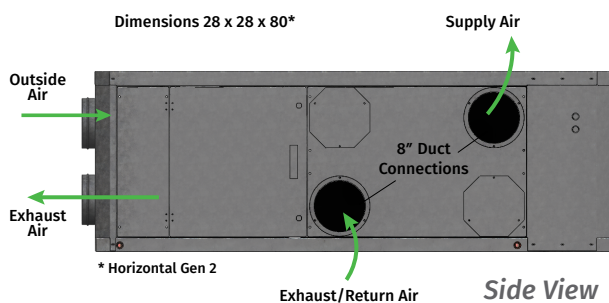
Occupancy Category	CFM/Person	Occupancy Category	CFM/Person
■ Art Classroom	10	■ Lecture Room	7.5
■ Bank or Bank Lobbies	7.5	■ Legislative Chambers	5
■ Bar/Cocktail Lounge	7.5	■ Libraries	5
■ Beauty and Nail Salon	20	■ Lobby/Pre-function	7.5
■ Bowling Alley	10	■ Museum	7.5
■ Break Room	5	■ Music/Theater/Dance	10
■ Cafeteria/Fast Food Dining Room	7.5	■ Office Space	5
■ Conference/Meeting Room	5	■ Pet Shop	7.5
■ Correctional Facilities	5	■ Pharmacy (prep area)	5
■ Courtroom	5	■ Places of Worship	5
■ Daycare/Classrooms	10	■ Reception Area	5
■ Gambling Casino	7.5	■ Restaurant Dining Room	7.5
■ Health Club/Aerobics	20	■ Retail Store	7.5
■ Hotel Room	5	■ Science Lab	10
■ Laundry Room	5	■ Super Market	7.5

\* See ASHRAE standard 62.1-2016 for complete standards and definition.

## The Final Word in Low CFM Outside Air Systems

Today's commercial buildings are designed and built with energy efficiency in mind. New construction techniques and materials used for the shell of the building minimize heat gains and losses and prevent the unwanted infiltration of moisture-laden outside air from entering the space, thereby decreasing the cost of space conditioning.

To maintain the latest ASHRAE Standard 62.1-2016 ventilation requirements, owners/operators of commercial buildings generally have to depend on up-sized packaged rooftop HVAC systems not only to condition the recirculating air but to also bring in fresh OA to meet IAQ requirements. This results in larger equipment investments and higher operating costs.



## The Solution is Alpha Aire

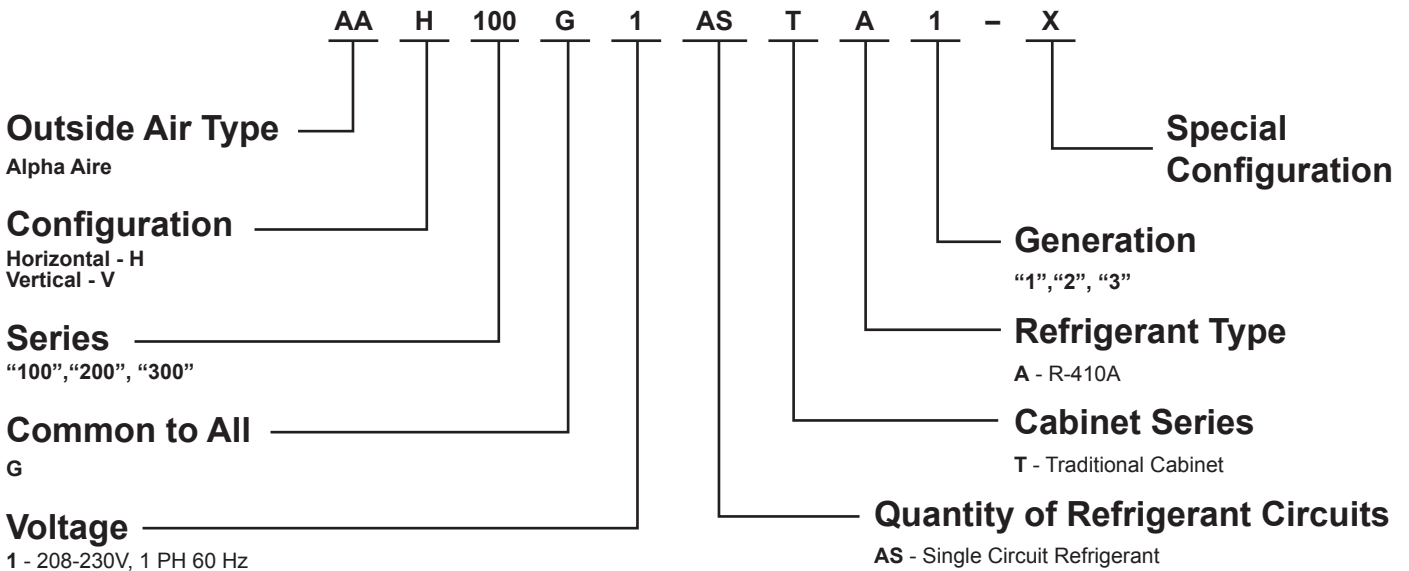
A simpler, more effective solution is a 100% dedicated outside air system (DOAS) from United CoolAir Corporation working in conjunction with a space sensible heating/cooling system. United CoolAir Corporation's Alpha Aire 100% outside air unit is a stand-alone system designed to meet the OA requirements for today and years to come. Traditional HVAC systems are designed primarily to handle design sensible loads and are not adequately designed for the high latent loads produced by outside air. The Alpha Aire is designed to exclusively handle the large latent ventilation load and deliver "neutral" air of 72°F to 75°F @ 50% RH. Alpha Aire's supply air dew point design temperature is lower than standard air conditioners to remove the maximum amount of moisture before delivery to the space.

### Divide and Conquer

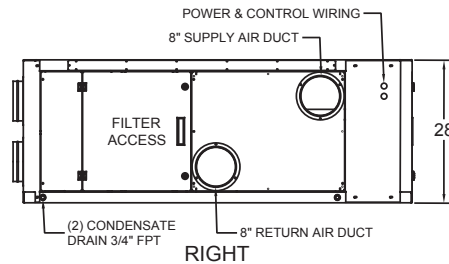
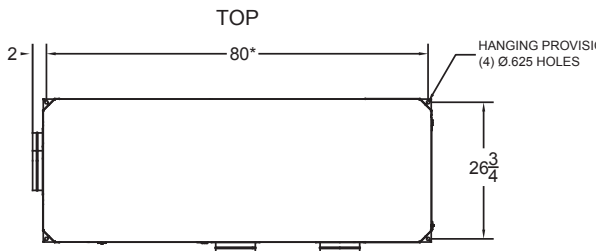
By separating the sensible load from the latent load, the Alpha Aire removes the moisture from its primary source—fresh outdoor ventilation air at the lowest cost. Alpha Aire can further assist the main space con-

ditioning unit by handling some of the smaller internally generated amounts of latent and sensible loads that naturally build from occupants and other sources. The result is better IAQ at a lower cost!

# Basic Model Designation

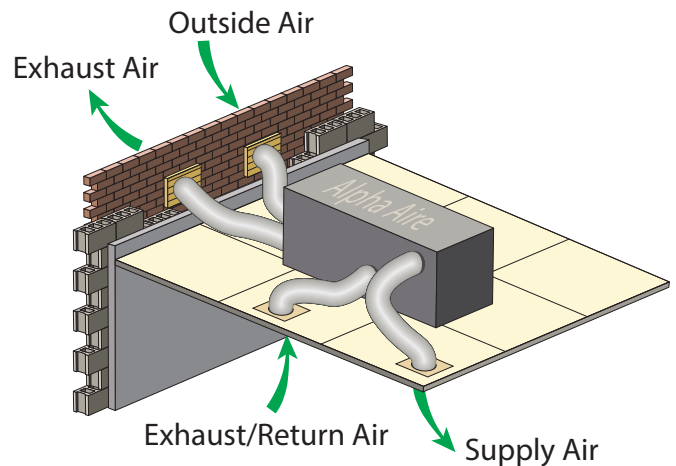


**United CoolAir designed the Alpha Aire with installation flexibility in mind. The compact horizontal configuration can be easily installed.**



## The All-Indoor Concept— A United CoolAir Exclusive

Alpha Aire, like all UCA air conditioning equipment, is designed for indoor installation! Air handlers and condensers require no exterior mounting space, which is critical in multi-floor, urban applications. Indoor unit mounting preserves the architectural integrity of the building by keeping the roof and perimeter free of obstructions. In addition to eliminating the roof loads, the installation and maintenance costs are lower, the equipment is protected from the elements and security is enhanced because of limited outdoor access.



# Unique Solutions for All-Indoor HVAC Projects



**VertiCool Aurora**  
Vertical, 3 - 35 Tons



**VariCool® Renovator**  
42 - 80 Tons



**VariCool® EZ-Fit**  
VAV, 12 - 90 Tons



**Alpha Aire Horizontal & Vertical**  
100 - 500 CFM



**Portable Cooling and Heating Units**  
3-30 Tons



**C13-Series Horizontal**  
2 - 10 Tons



**C-Series Horizontal**  
1 - 15 Tons  
Special Configuration  
Engineered to Order



**OmegaAir Horizontal & Vertical**  
100% Outside Air  
150 - 3000 CFM

Authorized Distributor:



## LIMITED WARRANTY

United CoolAir Units are backed by a 1 year limited warranty on parts and a 5 year limited warranty on the compressor (labor not included). Maintenance items such as filters and belts are excluded under this limited warranty.

## FACTORY TESTED

All units are functionally run tested before shipment to ensure a trouble-free start-up and unit commissioning. Industry proven components are used throughout to enhance system reliability and peace of mind.



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about all of our  
products!



491 East Princess Street, York, PA 17403 Phone: 717-843-4311 Fax: 717-854-4462  
email: [uca@unitedcoolair.com](mailto:uca@unitedcoolair.com) web: [www.unitedcoolair.com](http://www.unitedcoolair.com)



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