# Configured Packaged Rooftop Solutions

CINIA COOL

Specializing in Dedicated Outdoor Air Systems (DOAS) Capacities from 6 to 90 Tons Available in 208, 230, 460 and 575 Volts

# CLIMA COOL®

THE ULTIMATE ROOFTOP SOLUTION®





# Service Friendly Ultimate Efficiency

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# Design Flexibility

CLIMACCOOL



## Features & Benefits

#### Flexible Yet Affordable Design Platform

Allows numerous applications such as Air Cooled Cooling, Air Cooled Heat Pump, Water Source Heat Pump, Geothermal Heat Pump and Chilled Water Air Handler. Provides near infinite "Green" solutions for filtration, heat recovery, exhaust and return air, supply air, heating, make-up air and controls.

Specializing in Dedicated Outdoor Air Systems (DOAS) Optimized refrigerant

management with 6-row, face split, DX coil ensures ideal dehumidification at all ambient conditions. Designed for compliance with ASHRAE 62.1 standards. For mold prevention, systems and controls designed to limit space relative humidity to 60% or less during all load conditions.

**Lower Utility Costs** Ultimate efficiency, exceeding ASHRAE 90.1 standards, obtained through high efficiency scroll compressors, optimized heat transfer, variable speed condenser fans with EC motors and modulating control. Energy saving 2" double wall cabinet with injected polyurethane foam provides R-13 insulation value.

#### **Reduce Service & Maintenance Costs**

Innovative and simplistic design with hinged access doors to generously sized control and access compartments. Quality components include slide out IAQ double sloped stainless steel drain pan, variable speed EC condenser fans with integral head pressure control, direct drive backward curved plenum supply fans with VFD controls and 2" MERV 8 pleated filter as standard features.



#### **Application Flexibility**

Air Cooled Cooling • Air Cooled Heat Pump • Water Source Heat Pump Geothermal Heat Pump • Chilled Water Air Handler **Endless Control Strategies** Fully integrated DDC controls provide open protocol for BACnet, LonWorks, Modbus and N<sub>2</sub>. Optional factory mounting and wiring of customer furnished controls.



#### **Potential LEED Credits:**

**Construction IAQ Management Plan – During Construction** Filtration media with minimum efficiency reporting value (MERV) of 8.

**Enhanced Commissioning** Onsite maintenance and operational training provided by certified representative.

**Increased Ventilation** Heat-recovery ventilation and/or economizer strategies to improve indoor air quality promoting occupancy comfort, well-being and productivity.

#### **Optimize Energy Performance**

Exceeds ASHRAE 90.1 minimum efficiency standards.

**Outdoor Air Delivery Monitoring** Supply and exhaust airflow monitoring controls for precise airflow verification.

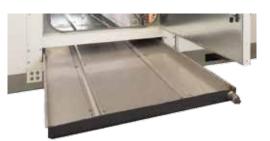
**Thermal Comfort – Controllability of Systems, Design & Verification** Controllability of systems for precise required heating and cooling to ensure highest comfort for building occupants. Equipment designed specifically for 100% outdoor air application.

## The Ultimate Rooftop Solution



#### Reliability

- Dual R-410A scroll compressors and independent refrigeration circuits for superior efficiency, proven reliability and quiet operation.
- Standard ambient operating range of 0-115°F.
- 6-row, face split, 12 fpi, DX coil for superior latent heat removal at all operating conditions.
- High efficiency, variable speed EC condenser fans with integral head pressure control, acoustical design providing low operating noise levels.
- Slide out double sloped insulated stainless steel IAQ compliant drain pan.



#### Filtration

- Standard 2" MERV 8 pleated filters, per ANSI/ ASHRAE Standard 52.2.
- Optional MERV 13, 14 pleated filters.

#### **Cabinet Construction**

- 2" double wall construction with injected polyurethane foam insulated panels for all doors, roof, walls and floor.
- R-13 insulation with thermal break minimizes heat transfer through the cabinet and provides moisture barrier and improved indoor air quality.



- Heavy gauge G90 galvanized steel with 3 mil powder coat paint finish.
- Sloped roof to eliminate standing water.
- Access doors with friction hinges and quarter turn handles with roller cam for easy access and serviceability.
- Continuous bulb gasket around access doors

#### **Control Options**

- Integrated DDC controls provide advance algorithms for maintaining precise temperature and comfort control.
- BAS interface with BACnet, LonWorks, Modbus and N<sub>2</sub> communications.
- Optional terminal strip mounting and wiring of customer supplied controls.



#### Verifiable Airflow Performance

- AMCA certified direct drive blower motor and plenum supply fan assembly with factory installed spring isolators eliminating resonance conditions within operating range.
- Quiet airfoil wheel eliminates additional cost for acoustical attenuation.

- Factory provided integral Variable Frequency Drive offering flexible operating points in response to changes in pressure, flow or other external data.
- Outdoor air inlet hood with mist eliminator filter.
- Built in airflow measurement device.
- High performance, two-position motorized outdoor air dampers. Extruded aluminum with airfoil blades and jamb seals allows low pressure drop and less noise generation. Compliant with ASHRAE 90.1 low leakage requirements.









Engineered rooftop solutions with industry leading energy efficiency, design flexibility, serviceability and treating outside air.

# **Options for Every Application**

#### **Energy Conservation Wheel (ECW)**

- Hard core molecular sieve desiccant with galvanized steel frame.
- Slide out conveyor system for . ease of maintenance.
- Improves Indoor Air Quality (IAQ).
- Provides maximum energy efficiency and minimizes operating costs.
- Transfers latent and sensible energy.
- Optional oversized wheel for higher efficiency and lower air pressure drop.
- Defrost control, pulse or variable speed. •
- Certified performance per AHRI 1060.

#### **Refrigeration & De-Humidification**

- Variable capacity scroll compressors.
- Hot gas bypass.
- Modulating hot gas reheat coils.
- Liquid sub-cooling coils constant or switchable.
- Compressor isolation valves.
- Factory installed refrigerant to air energy recovery device.

#### Electrical

- 115 V convenience outlet field or factory wired.
- Service lights for maintenance convenience.
- Firestat and smoke detector terminal.
- Main disconnect.



Education



#### Healthcare

#### **Fully Modulating Heat**

- Gas Heat Stainless steel 409 and 304 full heat modulation for precise temperature control. Oversized furnaces available to handle up to 80° or 90°F design temperature rise.
- Electric heat with modulating control, open or finned tubular element.
- Hot water coil.
- Steam distributing coil.

#### **Miscellaneous**

- Harsh environment condenser coil coating.
  - Harsh environment evaporator coil coating with stainless steel coil casing.

**Common Market Applications** 

- Condensing coil guard or hail guard.
- Roof curbs 14" or 24".



#### Athletic Facility





Treasure on the Bay | North Bay Village, FL



Norcross Cluster Elementary | Norcross, GA



Hofbrauhaus | Cleveland, OH



Briarwood Elementary | Moore, OK



### Air Cooled & Water Cooled Data

Air/Water Cooled, Air/Water Source Heat Pumps and Geothermal Standard Cabinet									
2 Series			4 Series			8 Series			
Chassis	Nom. Cap (Ton)	Nominal Airflow (CFM)	Chassis	Nom. Cap (Ton)	Nominal Airflow (CFM)	Chassis	Nom. Cap (Ton)	Nominal Airflow (CFM)	
106″L x 100″W x	6 7.5 10 12.5	750-8,000							
65"H	15 17.5 20		140"L x 100"W x	15 - 20 25	1,500-				
			90"H	30 35 40	13,500	287"L x 100"W x 102"H	31 - 41		
						338"L x 100"W x 102"H	50 60 70 80 90	3,750- 28,000	

Including Energy Conservation Wheel & Powered Exhaust									
2 Series			4 Series			8 Series			
Chassis	Nom. Cap (Ton)	Nominal Airflow (CFM)	Chassis	Nom. Cap (Ton)	Nominal Airflow (CFM)	Chassis	Nom. Cap (Ton)	Nominal Airflow (CFM)	
171"L x 100"W x	6 7.5 10 12.5	1,000-							
65"H	15 17.5 20	8,000	212"L x 100"W x	15 - 20 25	3,500-				
			90"H	30 35 40	13,500	377"L x 100"W x 102"H	31 - 41		
						428"L x 100"W x 102″H	50 60 70 80 90	7,000- 24,000	

Note: Maximum design CFM may be larger depending on conditions selected for unit.

Contact your local ClimaCool representative or visit our web site at www.climacoolcorp.com to find out more about other heating and cooling solutions that may fit your application needs.







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