



QUIET ■

ENERGY EFFICIENT ■

TRUE REDUNDANCY ■

RELIABLE ■

COMPACT ■

FLEXIBLE ■

INTEGRATED COOLLOGIC  
CONTROL SYSTEM ■



THE ULTIMATE CHILLER SOLUTION<sup>®</sup>  
AIR COOLED PACKAGED MODULAR CHILLER - MODEL UCA  
CONFIGURABLE UP TO 360 TONS PER BANK  
AVAILABLE IN 208, 230, 460 AND 575 VOLTS



**CLIMA**  **COOL**<sup>®</sup>  
THE ULTIMATE CHILLER SOLUTION<sup>®</sup>

# It's simple. All you need is air, water and electricity.

Introducing the newest addition to the ClimaCool® product line: the Air Cooled Packaged unit - Model UCA. These modules offer true flexibility to meet all of your needs with only 3 simple operating requirements: air, water and electricity. This eliminates the need for cooling towers and reduces water treatment requirements.

UCA models are available in 20 and 30 tons and can be configured to provide project turndown and capacity requirements from 20 to 360 tons. By simply adding modules, the UCA can satisfy future incremental growth needs. This model was designed to provide a quiet, serviceable and extremely efficient system that will offer years of reliable operation.

**Quiet** Acoustical design provides low operating noise levels utilizing rigid cast aluminum fan blades with winglets that lower sound pressure and minimize air turbulence.

**Reliable** Dual scroll compressors with independent refrigerant circuits provide reliable, efficient, quiet and redundant operation. Use of highly efficient, dual circuit brazed plate heat exchangers offer maximum performance at both full-load and part-load conditions.

**Compact** Modules have a low center of gravity and base cutouts for forklifts or pallet jacks for ease of transport and rigging. The compact design allows significant space savings and easy installation in severely limited areas.

**Flexible** Back-to-back, end-to-end and combination configurations provide ultimate design flexibility. The UCA offers a standard ambient operating range of 0 - 105°F. 20 and 30 ton modules can be mixed and matched for required bank capacity.

**Environmentally Friendly** Micro charge of non-ozone depleting R-410A refrigerant offers better efficiency, higher capacity and utilizes superior synthetic lubricants for longer compressor life.

**Energy Efficient** High efficiency design offers a minimum of 10.0 EER at full-load exceeding ASHRAE 90.1 minimum efficiency requirements.

**Durable** Heavy gauge G90 galvanized steel cabinet with 3 mil powder coat paint finish cabinet construction provides superior protection from weather. Schedule 40 carbon steel pipe water headers are designed to connect to adjacent modules through the use of 300 psi rated grooved couplings.

**True Redundancy** Separate module electrical feeds and integral water isolation valves permits maintenance of one module while the remaining system continues operation.

**Service Friendly** Design allows easy access to all major components. Unique design is fully serviceable and maintainable without removal of module from the chiller bank or disassembly of headers.

**Individual Module Control** Each module has an independent module control panel as well as chiller bank integration. Simple two-conductor shielded daisy chain connection to allow communication between modules, minimizes field wiring.

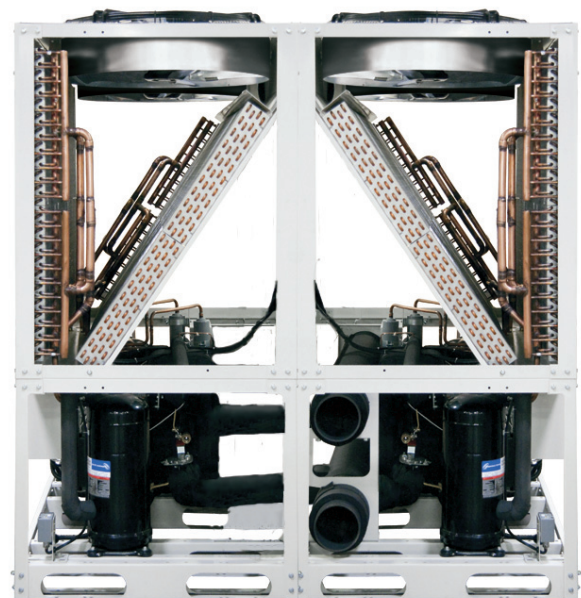


Photo shows two 30 ton UCA modules, totaling 60 tons capacity, in a back-to-back configuration.

# Options for every application.

**Free Cooling Module** Directly coupled to chiller bank, including free cooling coils, condenser fans and 3-way bypass valves.

**Pump Module** Module includes primary and standby in-line centrifugal pumps in a lead/lag configuration coupled to the common chiller header controlled through our CoolLogic control system.

**Low Ambient to -20°F** Variable speed fan control for all condenser fans provides optimum head pressure control. Liquid receivers and flood-back head pressure control valves are provided for all refrigerant circuits.

**Coil Guards** Protection of air cooled condensers.

**Harsh Environment** Coil coating protection.

**Hot Gas Bypass** Provided on both circuits allowing unit operation below the minimum step of unloading.

**Water Header Bypass** When using motorized valves, a water header bypass prevents pump deadheading with a bypass kit utilizing motorized two position actuators.

**Heat Pump** Reverse cycle heat pump for heating and cooling operation.

**Heat Recovery** Desuperheater provides hot water.

## **Pressure Differential Flow Sensor or Switch**

To prevent operation of chiller without sufficient water flow to the evaporator.

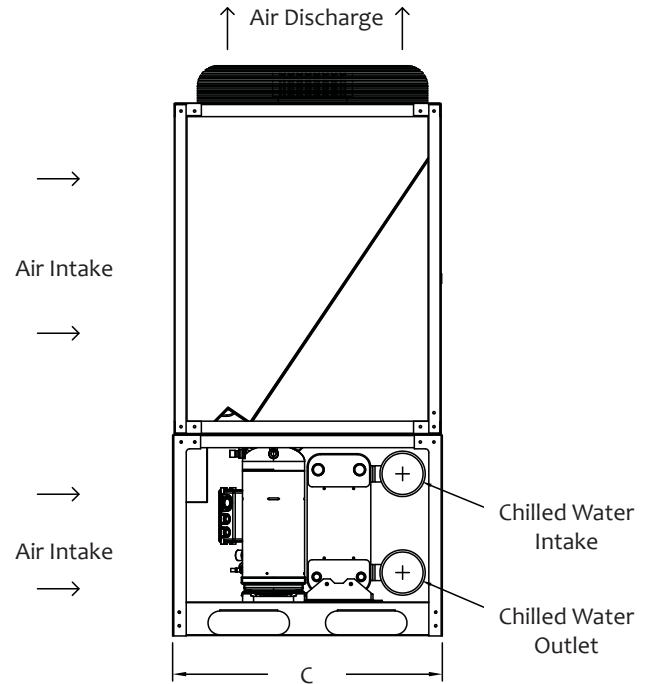
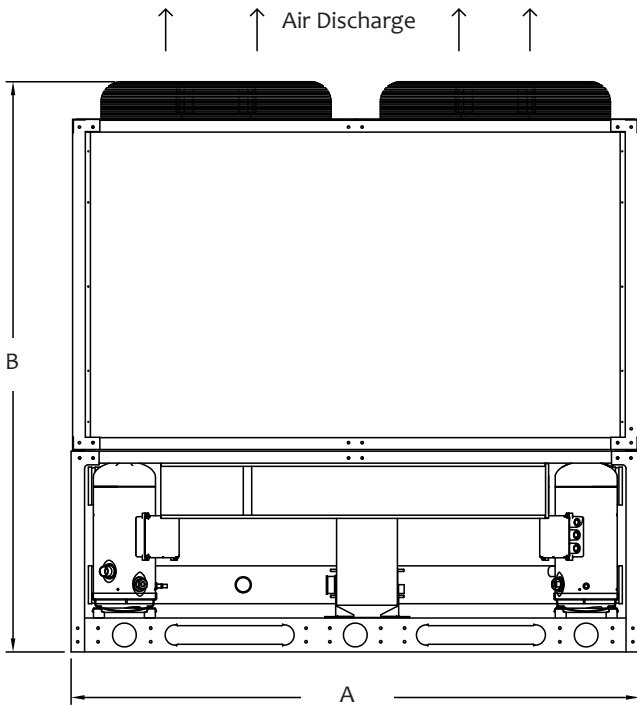
**Manual Strainers** Increase efficiency and ensure long life of the equipment with Y-style and Basket strainers of cast iron 200 psi or carbon 275 psi with 60 mesh stainless steel screens. All strainers are field installed external to the chiller bank for ease of service.

## **LEED categories satisfied by the UCA system:**

- **Sustainable Sites and Building Re-Use**  
Compact design allows significant space saving and easy installation in severely limited areas.
- **Water Efficiency**  
Air cooled design lowers water usage and is ideally suited for variable pumping which increases water efficiency when utilizing motorized valves.
- **Enhanced Commissioning and Measurement and Verification**  
CoolLogic Control System provides maximum flexibility with BAS interface.
- **Optimized Energy Performance**  
Exceeds ASHRAE 90.1 minimum efficiency requirements.
- **Thermal Comfort**  
Precise required heating and cooling ensures the highest comfort for building occupants.



Photo shows two 30 ton UCA modules, totaling 60 tons capacity, in an end-to-end configuration.



Model UCA	Voltage	A Unit Width	B Unit Height	C Unit Depth	Unit Weight <sup>1</sup> (lbs)	Operating Weight <sup>2</sup> (lbs)	Header Connection Size (in.)
020	208/230/460/575/3/60	83 3/4	84	39 3/4	1,495	1,710	6
030	208/230/460/575/3/60	83 3/4	84	39 3/4	1,655	1,870	6

**Notes:**

1. Shipping weight includes refrigerant charge, compressor oil and packaging.
2. Operational weight includes refrigerant charge, compressor oil and water.

Contact your local Climacool representative or visit our website at [www.climacoolcorp.com](http://www.climacoolcorp.com) to find out more about the UCA and other heating and cooling solutions that may fit your application needs.



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