



A NIBE GROUP MEMBER







## ClimaCool modular chillers. No compromises.

They're not just for tight spaces, retrofits and cooling.

Separate electrical feeds, independent refrigeration circuits and hydronic isolation means built-in redundancy.





# Wide variety of products and configurations to fulfill your application demands.

ClimaCool® is dedicated to providing flexible configurations to meet all your application needs, no compromises. These modular chillers are utilized in a wide variety of heating, cooling, heat recovery, heat pump and simultaneous heating and cooling heat pump and heat recovery commercial and industrial applications. So whether the need is a dedicated chiller for off peak loads, a heat recovery chiller, a truly redundant simultaneous heating and cooling plant or more, the following fundamental design features are integral to the product to provide a complete climate control solution. **No compromises!** 

**Compact** Small footprint reduces installation cost and restrictions on placement.

CoolLogic Control System CoolLogic provides complete system integration for ultimate chiller performance. It allows for control of modules via two-conductor shielded cable and interfaces with native BACnet® and LonWorks® communication. The CoolLogic Control System governs all top level events, timing and compressor staging and allows operator interface for all levels of setting and retrieving data. It maintains precise temperature control for cooling, heating, heat recovery and simultaneous heating and cooling applications to ensure the highest building comfort for occupants.

### Electric Heating to meet your buildings' Decarbonization & Electrification Requirements

**Energy Efficient** All ClimaCool modules are designed to exceed ASHRAE 90.1 minimum efficiency requirements.

**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.

**Expandable** Modular design allows for incremental system capacity to accommodate future growth.

**Lower Installation Costs** Maneuverable through existing doorways and freight elevators via fork lift or pallet jack which removes the need for demolition and/ or reconstruction.

**Retrofit Friendly** Compact design shrinks mechanical room and building footprint. This also allows modules to fit through existing doors eliminating the need for demolition and reconstruction.

**Service Friendly** Design allows easy access to major components making the models fully serviceable and maintainable without removal of a module from the chiller bank or disassembly of headers.

**Simple** Easy connect design simplifies installation, service and controls.

**Sustainable** Based on application, ClimaCool chillers can help meet LEED® prerequisites and contribute significant system points toward LEED® building certification.

**True Redundancy** Separate module electrical feeds and dual independent refrigeration circuits provide true system redundancy.

## LEED® categories satisfied by ClimaCool systems:

Enhanced Commissioning and Measurement and Verification CoolLogic Control System provides maximum flexibility with BAS interface.

**Enhanced Refrigerant Management** Micro charge of chlorine-free and non-ozone depleting refrigerant.

**Optimized Energy Performance** Exceeds ASHRAE 90.1 minimum efficiency requirements.

**Thermal Comfort** Precise required heating and cooling ensures the highest comfort for building occupants.

## Water Cooled & Geothermal Source



#### Water Cooled, Model UCW

Designed for major application flexibility and expandability to accommodate current and future needs. This system grows with the building requirements and offers a simple design for easy initial and future installation. Reaches efficiencies up to 16.3 EER at full-load and up to 20.4 EER at part-load (IPLV), exceeding ASHRAE 90.1 minimum efficiency requirements. The model UCW has earned AHRI® certification, an assurance of this product's performance.

Tonnages: 30, 50, 70, 85 Configurations: From 30 - 1,000 tons per bank

Voltages: 208, 230, 460 and 575

**Dimensions:** 30, 50, 70 tons: 34 1/4" W x 65 1/8" H x 55 1/2" D

85 tons: 34 1/4" W x 72" H x 67" D



#### High Temperature Chiller/Heater Heat Pump, Model UCH

The high temperature heat pump utilizes a refrigerant reversing valve to provide heating and cooling operation compatible with boiler/tower and geothermal systems. The heat pump system reaches efficiencies up to 16.3 EER, exceeding ASHRAE 90.1 minimum efficiency requirements.

**Tonnages**: 15, 30, 50, 70, 85 **Configurations**: From 15 - 500 tons per bank

Voltages: 208, 230, 460 and 575

**Dimensions:** 15, 30, 50, 70 tons: 34 1/4" W x 65 1/8" H x 55 1/2" D

85 tons: 34 1/4" W x 72" H x 67" D





## High Temperature Chiller/Heater Heat Recovery, Model UCH

The high temperature heat recovery can be utilized for heating and cooling operations and is compatible with boiler/tower and geothermal systems. Heat recovery can provide hot water, while also producing chilled water. The heat recovery module can reach combined efficiencies of up to 25 EER.

Tonnages: 15, 30, 50, 70, 85 Configurations: From 15 - 500 tons per bank

Voltages: 208, 230, 460 and 575

**Dimensions:** 15, 30, 50, 70 tons: 34 1/4" W x 65 1/8" H x 55 1/2" D

85 tons: 34 1/4" W x 72" H x 67" D





## Air Cooled

### Packaged Air Cooled, Cooling Only, Model UCA

The ultimate in design flexibility with back-to-back and end-to-end configurations. This allows combining tonnages to obtain specific project turndown for required bank capacity. The packaged air cooled offers a minimum efficiency of 10.0 EER at full-load, exceeding ASHRAE 90.1 minimum requirements. Provides low operating noise levels with high efficiency, variable speed EC condenser fans which includes integral head pressure control. The UCA, cooling only model has earned AHRI® certification, an assurance of this product's performance.

**Tonnages:** 20, 30, 50, 70 **Configurations:** From 20 - 420 tons per bank

Voltages: 208, 230, 460 and 575

**Dimensions:** 20, 30 tons: 83 3/4" W x 84" H x 39 3/4" D

50, 70 tons: 83 3/4" W x 99 1/8" H x 80 1/2" D







### Remote Air Cooled, Model UCR

Each module is designed to be field piped to a matching remote air cooled or evaporative condenser and eliminates the need for a cooling tower. This helps preserve space as well as lowering building water usage and treatment needs. Design offers efficiencies up to 10.9 EER at full-load and up to 17.5 EER at part-load (IPLV) exceeding ASHRAE 90.1 minimum efficiency requirements.

Tonnages: 30, 50, 70, Configurations: From 30 - 400 tons per bank

Voltages: 208, 230, 460 and 575

**Dimensions:** 30, 50, 70 tons: 34 1/4" W x 65 1/8" H x 55 1/2" D

## Free Cooling, Model UCF

Directly coupled to packaged air cooled chiller bank. Includes glycol free cooling coils, high efficiency, variable speed EC condenser fans with integral head pressure control and acoustical design providing low operating noise levels, two position motorized water isolation valve, 3-way bypass valves and fully integrated controls.

**Tonnages:** 30, 70

**Voltages:** 208, 230, 460 and 575

**Dimensions:** 30 tons: 83 3/4" W x 84" H x 39 3/4" D

70 tons: 83 ¾" W x 99 ⅓" H x 80 ½" D





### Packaged Air Cooled Heat Pump, Model UCA

Designed to provide a quiet, serviceable and extremely efficient system that will offer years of reliable operation. High efficiency design offers a minimum of 10.0 EER at full-load, exceeding ASHRAE 90.1 minimum efficiency requirements. Includes high efficiency, variable speed EC condenser fans with integral head pressure control and acoustical design providing low operating noise levels. Modules can be configured to provide project turndown and capacity requirements from 20–420 tons.

Tonnages: 20, 30, 50, 70 Configurations: From 20 - 420 tons per bank

Voltages: 208, 230, 460 and 575

**Dimensions:** 20, 30 tons: 83 3/4" W x 92" H x 39 3/4" D

50, 70 tons: 83  $\frac{3}{4}$ " W x 99  $\frac{1}{8}$ " H x 80  $\frac{1}{2}$ " D

## SHC on DEMAND®

## Simultaneous Heating and Cooling Heat Pump and Heat Recovery, Model UCH

Achieve cooling efficiencies up to 25 EER and heating efficiencies up to 5 COP to potentially lower system energy costs by more than 50% when compared to traditional boiler/chiller systems. Each module can be indexed for heating and/ or cooling onDEMAND regardless of its position in the bank, to precisely match building loads and provide optimum module/compressor run time equalization. Piping connection flexibility for hot, cold and source water loops allows same or opposite end configurations based on mechanical room needs.

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Value
Impact
Application
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Tonnages: 30, 50, 70, 85

Configurations: From 30 - 1,000 tons per bank

Voltages: 208, 230, 460 and 575

**Heat Pump Dimensions:** 

15, 25, 30, 50, 70 tons: 34 1/4" W x 78" H x 55 1/2" D

85 tons: 34 1/4" W x 84 7/8" H x 67" D

**Heat Recovery Dimensions:** 

15, 25, 30, 50, 70 tons:  $34\frac{1}{4}$  W x  $78\frac{7}{8}$  H x  $67\frac{3}{4}$  D

85 tons: 34 1/4" W x 82 7/8" H x 79 1/4" D





## Packaged Air CooledSimultaneous Heating and Cooling Heat Pump, Model UCA

Reduce energy consumption and the environmental impact of your heating and cooling equipment by harnessing energy that is already being produced but not used. Includes high efficiency, variable speed EC condenser fans with integral head pressure control and acoustical design providing low operating noise levels. The packaged air cooled SHC onDEMAND® provides hot water, as high as 135°F, while offering a minimum cooling efficiency of 10.0 EER with typical heating efficiencies around 3.0 COP.

Tonnages: 20, 30, 50, 70

Configurations: From 20 - 420 tons per bank

Voltages: 208, 230, 460 and 575

**Dimensions:** 

20, 30 tons: 83 3/4" W x 84" H x 39 3/4" D 50, 70 tons: 83 3/4" W x 99 1/8" H x 80 1/2" D







## Why throw away the heat?

ClimaCool chillers provide heating, cooling, heat recovery and heat pump technology in each module.

Leading you to a lower cost of ownership.





## Modular Chiller Air Cooled Skid Options

Configurable up to 5 units on a single skid

#### Lower contruction cost

- Chiller plant rigs in pre-piped skid reducing rigging time and cost
- Factory control & power wiring to units is optional
- Preassembly reduces chiller plant footprint minimizing architectural screening (if required for the building site)







## Options to suit every need.

#### **Automatic CS Series Strainer Package**

Field installed, high quality, low maintenance stainless steel filtration systems with 60 or 80 mesh stainless steel screens will reduce operating costs and prevent nuisance condenser issues. Strainer package can be equipped with optional pressure differential alarm and automatic time flush.

**Coil Coating** Factory installed coil coating for outdoor element protection. (Packaged Air Cooled)

Condenser Water Head Pressure Regulating Control Factory installed motorized condenser water valves provide head pressure regulation for low entering condenser water temperature applications (less than 60°F).

Hail Guards Factory or field installed 18 gauge galvanized steel louver panels with powder coat paint finish for outdoor element protection. (Packaged Air Cooled)

#### **Heat Trace for Freeze Protection**

### Hot Gas Bypass or Digital Scrolls or VFDs

Factory installed allowing unit operation below the minimum step of unloading.

Low Ambient to o°F Factory installed 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. (Air Cooled Cooling Only)

**Manual Strainers** Field installed to utilize Y-style and basket strainers of cast iron 200 psi or carbon 275 psi with 60 mesh stainless steel screens to increase

efficiency and ensure long equipment life. All strainers are field installed external to the chiller bank for ease of service.

Pressure Differential Flow Sensor Field installed to prevent operation of the chiller without sufficient water flow to the evaporator and/or condenser.

**Simultaneous Heating & Cooling** Factory installed to include four (4) headers for Packaged Air Cooled or six (6) headers for Water Cooled and integral motorized valves for indexing module for heating or cooling operation.

#### 65 KA SCCR Electrical

**Water Header Bypass** A field installed water header bypass may be utilized to prevent deadheading the pump.

Water Isolation Valves and Individual Heat Exchanger Flush Ports Factory installed providing module isolation for maintenance and individual cleaning of evaporator and/or condenser heat exchangers. This is accomplished without increasing unit or bank dimensions. Individual heat exchangers can be backflushed/cleaned while adjacent modules continue normal operation. Optional choice of integral manual or motorized valves includes ¾" fill and flush valves.

**Weatherproof Enclosure** NEMA 4 enclosures for *CoolLogic* Panel.



## **Market Applications**



**Odyssey Elementary** 



Lockheed Martin



Marlborough Apartments



Great Northern Hotel



Ansvs. Inc.



World Trade Center



Birch Bay Courthouse



Central Park Tower



Statue of Liberty



Northeast Georgia Health Systems

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



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