



ECOSAIRE®



[PRODUCT
LINE]



Precision
Environmental
Control

INTRODUCING A NEW GREENER GENERATION

THE ECOSAIRE® ADVANTAGE

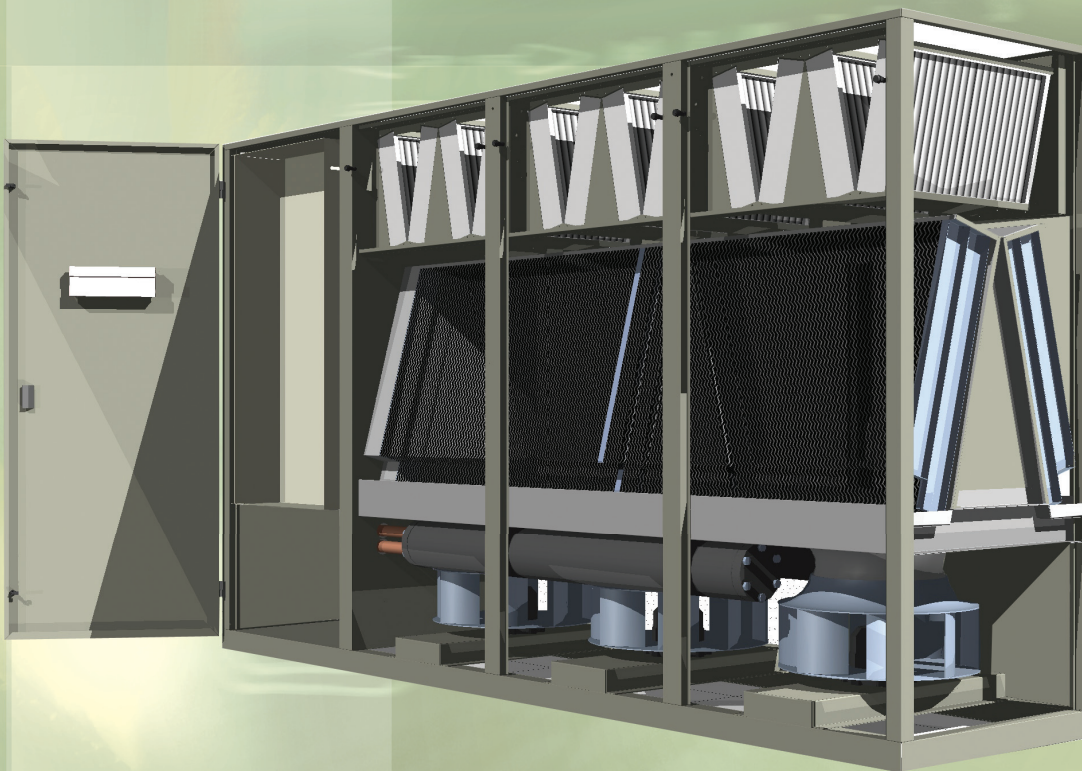
Ecosaire® Precision Environmental Control Systems are feature-rich, premium products that are available in product ranges with uniquely engineered designs that no other manufacturer duplicates.

All sites containing electronic equipment have specific temperature, humidity, and air filtration requirements. High temperatures reduce the reliability of internal hardware components leading to distorted or lost data and even complete system failure.

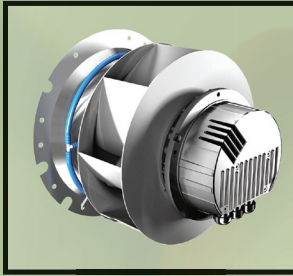
High humidity causes moisture to accumulate resulting in surface condensation and corrosion, tape deterioration, head crashes, paper swelling and handling problems. Low humidity allows a buildup of static electricity. In addition to random data errors, high-voltage static will cause a system crash if grounded through the equipment, and invariably damage hardware.

All Ecosaire® equipment offers maximum design flexibility ensuring continuous and simultaneous control of temperature, humidity, air purity, and airflow within each dedicated operating site.

Ecosaire® units provide a lower total cost of ownership, which includes installation, operational and maintenance/servicing costs, as well as the initial equipment expense.



FEATURES

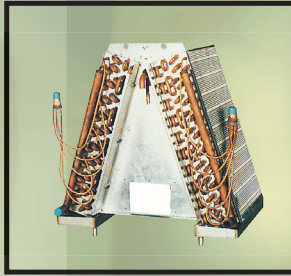


Direct Drive BI fans

- Universal air discharge
- Backward inclined
- Easy maintenance

Optional EC Motor

- Very high efficiency, frictionless variable speed motor



Refrigeration Circuit

- Extra-large coil surface means more cooling for less energy
- A-Frame coil design provides most effective heat transfer and optimum airflow pattern



Humidifier

- 100% particle-free steam for cleaner air
- Easily-replaced cylinder eliminates messy, time-consuming maintenance
- Lowest cost of power (kW) per pound of moisture produced



Scroll Compressor

- High efficiency scroll compressors produce substantial energy savings
- Increased reliability and improved serviceability result in extended service life

• Complete Range of Applications

Select from a complete range of direct expansion units (Air, Water or Glycol-cooled), Chilled-water, Dual-Cool (Air, Water or Glycol-cooled) and Free-Cool.

Dual-Cool takes advantage of a building's low-cost chilled-water supply, where available. When the central chiller is not operational, the refrigeration circuit automatically takes over to continue uninterrupted cooling.

Free-Cool is a glycol-cooled system which provides cooling without the use of the refrigeration compressors during cool weather. It is capable of offering partial free-cooling with ambient temperatures as high as 60°F.

• High Sensible Cooling

Ecosaire® systems deliver superior performance and efficiency with high sensible cooling – the cost effective means of cooling electronics equipment. Ecosaire®'s high airflow and extra large refrigeration coil results in lower energy consumption. Energy is only expended when it is needed for air temperature and humidity control.

• On-Demand Dehumidification

Stable environmental conditions are further ensured by Ecosaire's on-demand dehumidification cycle. Unlike conventional systems, which constantly dehumidify, the Ecosaire® approach means dehumidification occurs only when necessary. Therefore, the constant and costly process of removing and then replacing moisture is eliminated.

• Ease of Serviceability

Ecosaire® units are designed to facilitate maintenance and servicing. All major components are easily accessible and with a self-diagnosing controller reduced downtime is pre-engineered into every unit.

• Reliability

Precision control of temperature, relative humidity, and air purity eliminates fluctuations in space conditions that can jeopardize computer and electronic equipment operations. Ecosaire® units are designed to deliver pristine and precise environmental control, advanced function, and unparalleled system reliability.

PRODUCT LINE

ENVIRONMENTAL CONTROL – EN SERIES 7 ½ TO 30 TON COOLING CAPACITY

The Ecosaire® EN Series are floor-mounted units specially designed for large electronic sites. As in all other Ecosaire® systems, the EN Series provide total environmental control with the lowest possible energy consumption.

STANDARD & OPTIONAL FEATURES:

- Dual refrigeration circuits
- Available with R-410a and R-407c Refrigerants
- All Cooling types available including Free-Cool and Dual-Cool
- Direct Drive Independent BI Fans for Redundancy
- EC Motors
- Various Airflow arrangements available
- Electrode Steam Humidifier
- Highest Air Volume / Sq. Ft.
- Highest Coil and Filter Surface Area / Sq. Ft.
- Highest Sensible Heat Ratio
- Dehumidification on Demand Only
- Variable Cooling Capacity available
- Return Air or Supply Air Temperature Control
- Full Front Service Access Only
- Optional Double-Wall Casing Construction
- Front and side panels with lift-off hinges
- All Serviceable Components Out of Air Stream



EN Series

PRODUCT LINE

SPACEMAKER – SN SERIES 3 TO 8 TON COOLING CAPACITY

The Ecosaire® SN Series are compact floor-mounted units specially designed for small and mid-sized electronic sites. As in all other Ecosaire® systems, the SN Series provide total environmental control with the lowest possible energy consumption.

STANDARD & OPTIONAL FEATURES:

- Single refrigeration circuit
- Available with R-410a and R-407c Refrigerants
- All Cooling types available
- 33" Deep unit with Direct Drive BI Fans
- Optional EC Motors
- Various Airflow arrangements available
- Various Re-Heat options
- Electrode Steam Humidifier
- Dehumidification on Demand Only
- Full Front Service Access Only
- Optional Double-Wall Casing Construction
- Front and side panels with lift-off hinges
- Standard Brazed Plate Heat Exchangers
- 21" Deep Slimline unit available with 2-speed direct drive blower motors



SN Series

CEILING MOUNT – CN SERIES 1 ½ TO 10 TON COOLING CAPACITY

The Ecosaire® CN Series are specially designed units for applications where the lack of space prohibits the use of floor mounted units. As in all other Ecosaire® systems, the CN Series provide total environmental control with the lowest possible energy consumption.

STANDARD & OPTIONAL FEATURES:

- Single refrigeration circuit
- Available with R-410a and R-407c Refrigerants
- All Cooling types available*
- Horizontal ducted with various discharge options
- Spot-cooler configuration also available
- Various Re-Heat options
- Electrode Steam Humidifier
- Standard Brazed Plate Heat Exchangers
- Available with remote indoor centrifugal or outdoor condensing unit **
- Available with remote indoor centrifugal or outdoor air-cooled condenser **



CN Series

* Dual-Cool & Free-Cool systems limited to certain models

** Limited sizes for indoor units

PRODUCT LINE

INDUSTRIAL PROCESS AIR CONDITIONING – IAT SERIES 4 TO 60 TON COOLING CAPACITY

The Ecosaire® IAT unit is designed to re-circulate purified and controlled air throughout a designated room area, to meet or exceed the critical conditioning and air purity performance demanded by industry standards. High efficiency air purification is provided with a rated particulate filter elements.

STANDARD & OPTIONAL FEATURES:

- Heavy-gauge steel or stainless steel construction
- Modular system design with separate compressor and plenum sections
- Various cooling options
- Protective coatings available
- Close control provided:
±2°F on temperature and
±5% on relative humidity



IAT Series

HEAT TRANSFER PRODUCTS UP TO 300 TON CAPACITY

Ecosaire® offers a wide variety of Heat Transfer products for almost any application.

STANDARD & OPTIONAL FEATURES:

AIR-COOLED CONDENSER

Ecosaire® offers a complete line of air-cooled condensers for an array of applications and can be designed to meet any heat load.

Ecosaire® air-cooled condensers are available in both single and multiple circuit applications.

GLYCOL COOLER

Ecosaire® offers a complete line of air-cooled glycol coolers that provide continuous closed-loop cooling for an array of applications. Ecosaire® air-cooled glycol heat exchangers use the ambient air to cool off the circulating fluid within the cooler to the desired temperature.



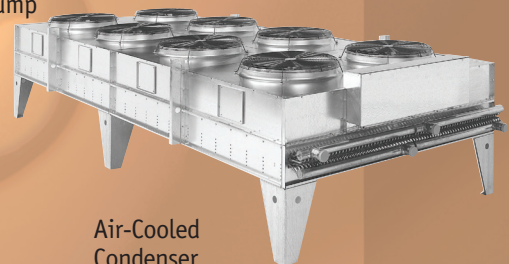
Ecoscooler

ECOSCOOLER®

Ecosaire® offers a complete line of air-cooled EcosCoolers®. They comprise the same features of the Glycol Coolers with the addition of simplex or duplex pumps mounted on an integral galvanized base, valves, piping and controls all installed.

REMOTE PUMP BOX

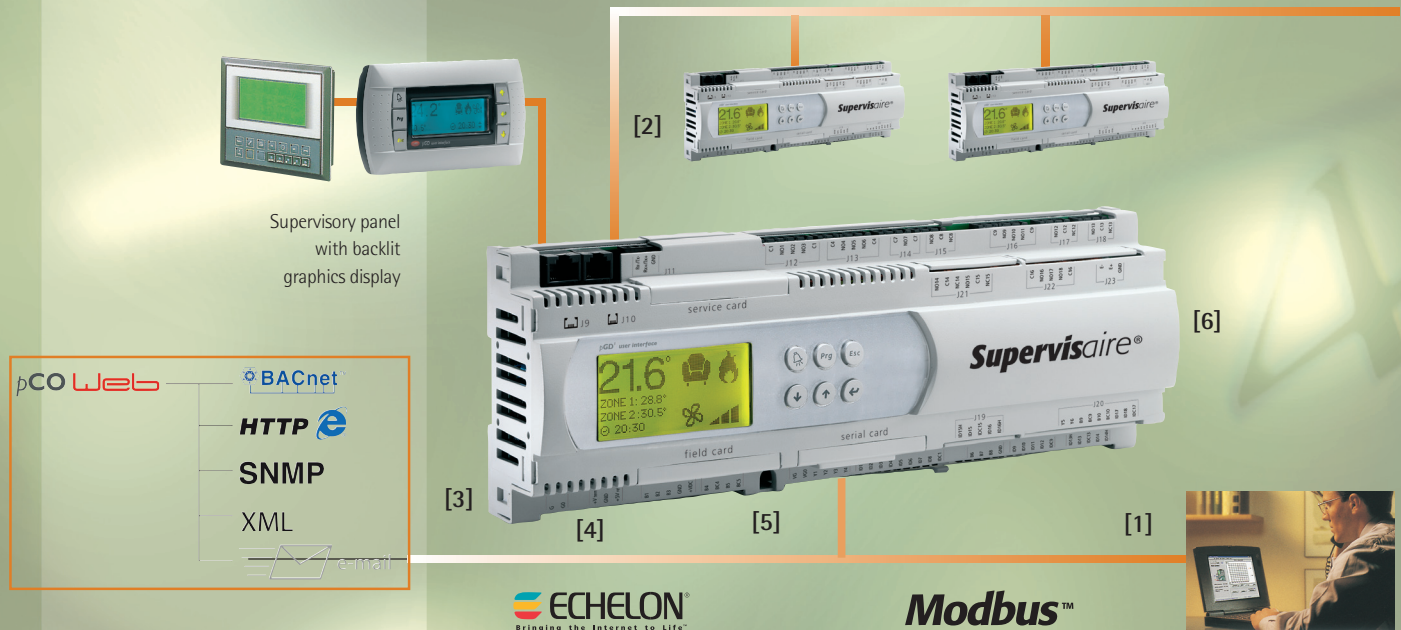
Ecosaire® offers a complete line of remote pump boxes available with either single or dual mounted pumps. Remote pump boxes are available in various sizes and are available with valves, piping and controls installed.



Air-Cooled
Condenser

SUPERVISAIRE® CONTROLS

The Supervisaire® Microprocessor Controls provide extremely user-friendly, programmable monitoring and control for all Ecosaire® Precision Environmental Control Systems. Individual Ecosaire® units can be connected together on a built-in local area network together with a supervisory panel, complete with a backlit graphics display for robust redundant environment control. At the same time, the network can be connected to a personal computer supervisory system either directly or via modem, or to a BACnet®, ECHELON® or MODBUS® network.



[1] Communication Standards

Thanks to its multi-protocol software, Ecosaire® systems can be connected directly to various communication standards, including BACnet®, ECHELON®, MODBUS® and PCO Web interface with dedicated IP address, HTTP, SNMP & XML capabilities.

[2] Built-in Local Area Network

The Ecosaire® units can be easily connected to each other with a built-in local area network together with a supervisory panel with a backlit graphics display to facilitate redundant system design, load sharing, remote monitoring, and control.

[3] Event Saving and Alarm Log

The high capacity of the flash memory and the clock with built-in back-up battery allow the storage of all active alarms, temperature, humidity, and other sensor input information, as well as status of the controlled devices for very long periods.

[4] Ease of Programming

The Supervisaire® can be easily and quickly programmed for software customization. The software can be transferred directly from a personal computer using a "plug and play" FLASH memory key, or a modem.

[5] Backlit User Interface

The unit mounted backlit LCD panel is large and easy to read and provides an easy to use interface for the operator. English language menus (other languages available) walk the user step-by-step through the monitoring and control of the system, which includes built-in diagnostics.

[6] High Execution Speed

A powerful 16-bit microprocessor ensures high program execution speed and efficient real time management of even the fastest transients.

Ecosaire® equipment has demonstrated superior performance in thousands of applications around the world. Customers include:

Bell Canada
Canada Post
Canopy Group
Carleton University
Canadian Pacific
Canadian Parliament
Cisco Systems
City of Toronto
Dept. of National Defence
e-Spire
Ericsson
IBM
Imperial Oil
Intel
Janus Funds
JD Edwards
MCI
Mitel
Nortel
Ontario Hydro
Poudre Valley Hospital
Sprint
TCI
Telesat Canada
University of Québec
U.S. Air Force
Westwind Media



USA & CANADA
1.800.387.1930

2180 Dunwin Drive, Unit 7
Mississauga, ON

Fax: (1) 905.828.5018
www.ecosaire.com
e-mail: info@ecosaire.com

ECOSAIRE reserves the right to make any changes in the design or specifications of any product, at any time, without prior notice.

