



## ENSURING NETWORK AVAILABILITY WITH MISSION-CRITICAL COOLING TECHNOLOGIES

*Precision Control Of Room Environment For Computers,*

*Communications Systems And Other*

*Sensitive Electronic Equipment*



# AS THE TEMPERATURE RISES — SO DOES YOUR RISK

Every operation of your company depends upon the instant around-the-clock availability of computers, servers and other electronic systems. If they aren't working, neither is your company. Unfortunately, every piece of IT equipment your company possesses produces heat. And if you don't get rid of the heat, you are going to have problems. The first step in taking control of this situation is to understand the threats to your system reliability — and exactly what you can do about them.

## You Face Many Challenges In The Pursuit Of Business Continuity

### But There Are Real Solutions

#### **Mission-Critical Cooling Provides Protection Under All Conditions**

Yes, computers have changed — but the threats to their operation are as real as ever. An air conditioning system that maintains the temperature and humidity at the proper levels in your critical facility is an absolute necessity for the viability of your business.

#### **Mission-Critical Systems Keep Moisture And Air Cleanliness Right Where They Need To Be**

Ordinary building air conditioning and heating systems are designed to keep people comfortable. Computers and other sensitive electronics require a system that provides humidity control to meet equipment specifications — and air filtration designed to keep airborne particles from causing problems.

#### **Because Every Facility Is Unique, Mission-Critical Systems Are Designed to Meet The Cooling Needs Of Any Critical Space**

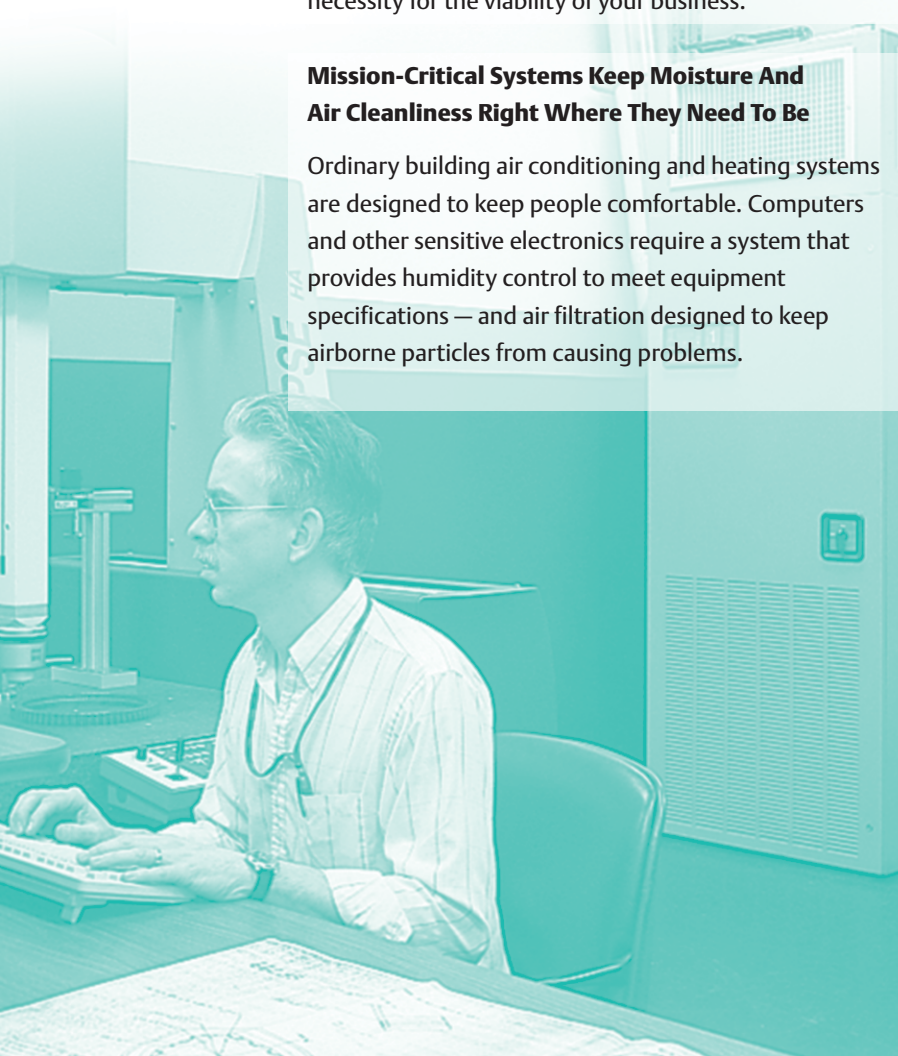
A mission-critical cooling system can be engineered to match just about any type or size of facility. There are downflow systems for raised floor facilities and upflow units where the floors are not raised. Supplemental systems can be used where equipment is tightly packed in racks. Compact models are ideal for small or remote facilities.

#### **Mission-Critical Cooling Systems Are Engineered To Get The Most From Every Energy Dollar**

Energy efficiency is no longer just an option for users of air conditioning. Today's systems offer a choice of compressor types, microprocessor controls and other optional features designed to reduce power consumption and maximize energy savings.

#### **Mission-Critical Systems Are Designed To Operate Year-Round**

Because most critical computing and communications facilities function on a 24 x 7 basis — so must the environmental equipment that is protecting it. Mission-critical cooling is designed to run around-the-clock, no matter what the outside weather conditions.



# THE ABILITY TO TAILOR A SOLUTION IS WHAT REALLY SETS LIEBERT APART

No one knows more about precision cooling than Liebert. After all, we invented it back in 1965. Our mission-critical cooling technology has been proven in thousands of critical data centers around the world. In fact, there are Liebert mission-critical air conditioning systems in the field that have been in constant use for over 30 years — a purchase that has spanned many generations of computers. These products are recognized as the world's standard for reliable operation.

## The Widest Range Of Products Gives You An Infinite Range Of Solutions

From high-capacity units such as the Liebert Deluxe System/3™ — the standard of the industry — to compact above-ceiling systems like the Liebert Mini-Mate2™, there is a Liebert system designed to cool and protect your critical computing systems. We make the industry's widest range of mission-critical environmental control, including air conditioners, fluid chillers and heat rejection systems in capacities from 1 to more than 65 tons (3-210 kW). These systems are available with a choice of cooling methods, including chilled water, air cooled and glycol cooled models, as well as ultra energy efficient GLYCOOL™ and Dual-Cool configurations.

We also offer specialized systems, including exterior-mounted air conditioning for telecommunications enclosures, supplemental cooling for high-density electronic applications and process chillers for MRI / CAT scan applications.

## The Liebert Range of Precision Cooling Solutions

	0 to 10.5 kW 0 to 3 Tons	>10.5 to 35 kW >3 to 10 Tons	>35 kW >10 Tons
<b>Specialized Heat Removal Systems</b>  Designed to become an integral part of the equipment being protected, these systems include telecom shelter air conditioning, environmentally controlled equipment enclosures, spot cooling and dedicated process chillers.	Liebert IntelCool2 1.5-5 T Liebert RackCooler 2-3 T Liebert Foundation MCR .5-1 T	Liebert XD Systems Liebert Process Fluid Chiller 1.5-10 T Liebert CSU 3000 5-37 T	
<b>Precision Air Conditioning Systems</b>  Engineered to meet the year-round reliability demands of computer rooms and other critical spaces, these systems deliver energy-efficient environmental control, including temperature, humidity and air filtration. Their advanced controls are compatible with a variety of facility monitoring systems.	Liebert DataMate 1.5-3 T Liebert Mini-Mate2 1-8 T	Liebert Challenger 3000 3.5-5 T Liebert Himod 8-12 T Liebert Deluxe System/3 DX 6-30 T	Liebert Deluxe System/3 CW 10-60 T Liebert ICS 10-60 T
<b>Heat Rejection Equipment</b>  Built to complement our air conditioning and fluid chiller systems, Liebert condensers and drycoolers offer a variety of configurations to meet your specific installation requirements.	Liebert Condensing units 1-8 T	Liebert Drycoolers 3-120 T	



## YOU NEED TO START WITH THE RIGHT KIND OF COOLING

Some operations may be tempted to utilize standard comfort cooling systems to save money or to avoid using additional floorspace within their facility. But while these moves may provide some benefits in the short term – They must be balanced against the cost of potential downtime and equipment damage caused by serious overheating, as well as the risk of financial loss.

### Why Comfort Air Conditioning Should Make You Uncomfortable

Standard building air conditioning is designed for one thing: to keep people comfortable. In most cases, this is done 8-12 hours each day, five days a week and only during the warmest months. These units are simply not built to handle the 24 hour-a-day operation associated with computer rooms and communications facilities.

### The Protection Never Stops

Mission-critical cooling systems are designed to run the same hours as your network – continuously, year in and year out, around the clock. These systems are specifically designed to maintain both temperature and humidity levels to equipment manufacturers' specifications, which are several times more stringent than those designed for the human body.

### Removing Heat Without Removing The Humidity

The biggest problem with ordinary air conditioning systems is they are designed for the comfort of people – not the protection of computer-based electronic systems. Unlike people, computers generate dry (also called sensible) heat, but not humidity.

With a large percentage of their total capacity devoted to the removal of moisture, comfort systems can lower room humidity far below acceptable standards for electronic equipment – and they have no provisions for adding moisture. To correct this situation, precision air conditioning systems typically have a high ratio of sensible-to-total cooling capacity to remove heat from the air. This allows for much lower operating costs since the type of cooling is matched to the load. These units also use integrated humidification systems to provide the necessary level of moisture control.

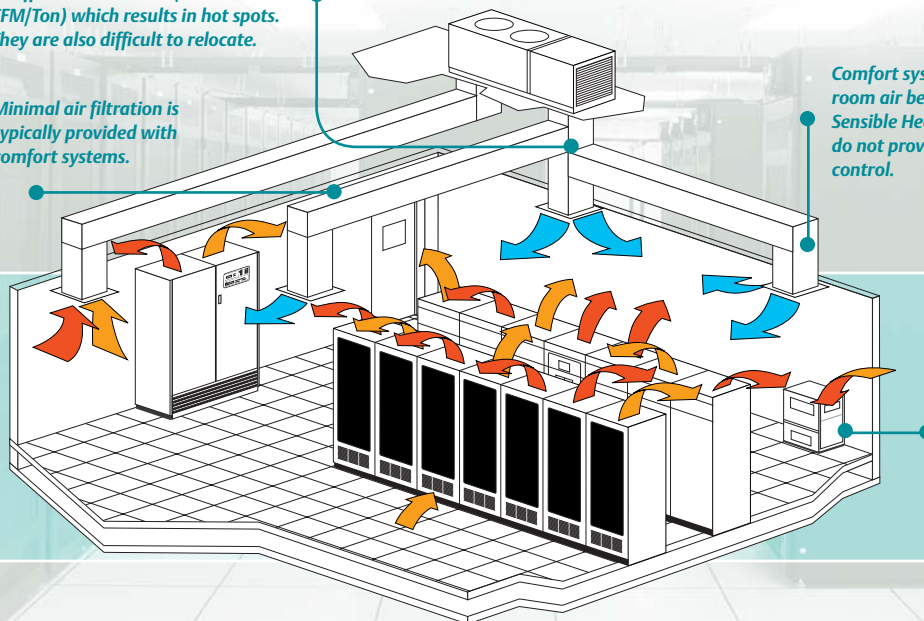
**Comfort Air**

*Using rigid, overhead ducts provides insufficient air volume (350-400 CFM/Ton) which results in hot spots. They are also difficult to relocate.*

*Minimal air filtration is typically provided with comfort systems.*

*Comfort systems can over-dry room air because of their lower Sensible Heat Ratio. They typically do not provide integral humidity control.*

*Using separate humidification systems, not controlled by the cooling system, can waste energy and reduce the stability of the environment.*



# What Makes A Mission-Critical Air Conditioning System So Different?

There are several key areas that differentiate mission-critical cooling from ordinary comfort air conditioning systems. Each of these performance criteria has a major impact on the proper environmental protection of your critical facility.

## Temperature And Humidity Control

Mission-Critical Systems are specifically designed to handle the heat loads generated by electronic equipment. They utilize fast-response microprocessor control systems to adjust quickly to changing conditions within the room, while providing you with complete supervision of temperature and humidity at all times. Liebert lets you choose from several humidification methods including integral infrared and steam generation units.

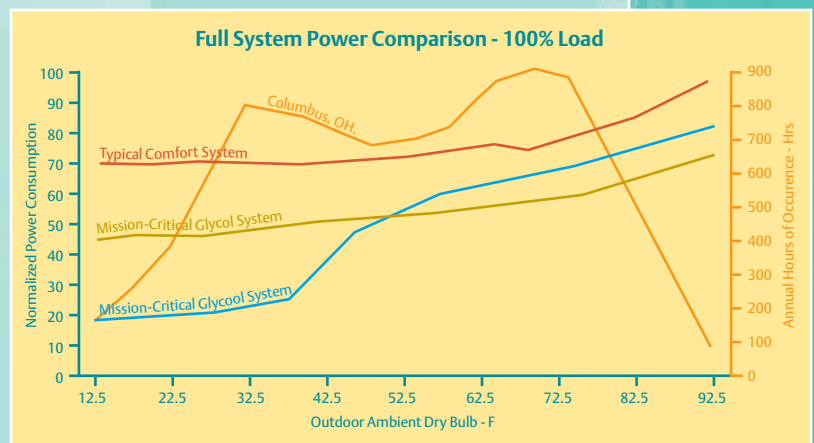
## Air Flow Management

Providing the proper volume of air to the specific location in a data center is as important as the temperature control. Mission-Critical Systems are designed to handle a wide range of static pressures within the duct work or under floor plenum to address this important requirement.

## Operating Efficiency

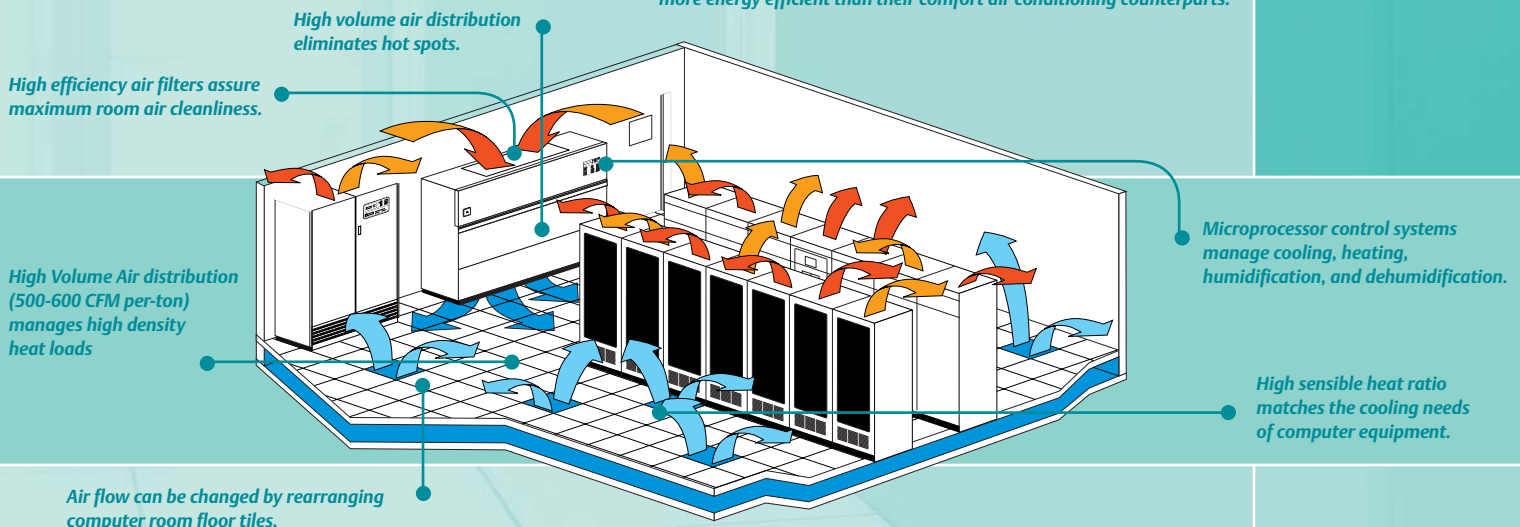
The higher Sensitive Heat Ratio (SHR) of Mission-Critical Systems results in lower energy operating costs vs. comfort systems. Four-Step, GLYCOOL™ and Dual-Cool options offer even more energy efficiency. These enhancements increase the performance level of the system and more closely track the cooling load of your critical space.

	Required Attributes	Mission-Critical Air Conditioning Systems	Typical Comfort Air Conditioning Systems
Design Considerations for any Computer Room Environment	High sensible heat ratio to provide high cooling capacity/minimum dehumidification	"Computer" environments produce high heat/no humidity	"People" produce an equal amount of heat and humidity
	High-efficiency air filtration	Typical MERV rating of 5	Minimum MERV rating of 8
	Humidity control	Integral with control system	Typically an add-on system with separate controls
	Year-round operation	Positive operation with outside temperatures as low as -30° F	Typically used May to October
Additional Design Considerations Required for High Density Environments	High density loads require more room air changes	1 per minute; 2 per minute at 200w/sq. ft.	3-4 per hour
	More tons of cooling per square foot	One ton of cooling for every 10- 60 square feet of space	One ton of cooling for every 200-400 square feet of space.
	Control staging	Fast acting, multiple cooling stages maintain tight control	Slow response systems, typically only on/off control



Mission-critical environmental control systems are designed to be much more energy efficient than their comfort air conditioning counterparts.

## Mission-Critical Air



## WHERE DO YOU NEED MISSION-CRITICAL COOLING TECHNOLOGY?

We have cooling solutions for any of the applications that are part of your mission-critical business operations.

Liebert has identified nine distinct zones or areas of application, found within many business operations, which have a requirement for mission-critical cooling technology. While these zones have similarities in the importance of their essential functions, they also have different needs for infrastructure protection — all of which can be met by Liebert solutions.

**Data Centers** — High availability data and network applications are the heart of your enterprise with blade servers and high-density racks that demand increased cooling protection.

**Computer Rooms** — Smaller sized network and computer facilities, but equally essential to your operations.

**Network Operations Centers** — As networks expand and grow more complex, you need reliable and timely access to mission-critical infrastructure monitoring information long before problems arise.

**Network Closets** — Housing routers, switches, modems, cabling devices and numerous other communications components.

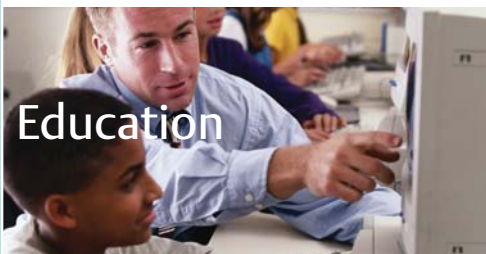
**Mechanical Rooms** — Home of your critical infrastructure, from the main electrical distribution system to your mission-critical networks.

**Telecom Wireline / Wireless Sites** — Indoor or outdoor spaces hosting cable, DSL and fiber optics to remote cell sites and enclosures.

**Emergency Shelters** — Emergency operations centers, 911 response emergency dispatch, police and fire facilities, medical facilities, public works operations and more.

**Labs & Testing** — Sensitive computers and equipment used for diagnosing patients, analyzing data, performing critical tests, and operating electronic tools and lab instruments.

**Production** — Smart factories backed by a complex electronic network, from computer-controlled machinery and processes to electronic sensors, business systems and utility equipment.



Education



Banking



Industrial



Medical



Government



Defense



Retail


## THE ZONES FOR

### HIGH 9s PROTECTION

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	Page Number	Data Centers	Computer Rooms	Network Operations Centers	Network Closets	Mechanical Rooms	Telecom Wireline / Wireless Spaces	Emergency shelters	Labs & Testing	Production
<b>Precision Computer Cooling and Fluid-Cooling Systems</b>										
IntelCool 2	11				■	■	■	■		
XD-Piping	13	■	■							
XDA Air Flow Enhancer	13	■	■	■						
XDC Chiller	13	■	■	■						
XDO16 Overhead Cooling Module	13	■	■	■						
XDP160 Pumping Unit	13	■	■	■						
XDWR (Rack Cooler)	13	■	■	■						■
XDWP (CDU)	13	■	■	■						■
XDV Vertical Top Cooling Module	13	■	■							
CSU 3000 Chiller	14								■	■
Process Fluid Chiller	15								■	■
Mini-Mate 2	16	■	■		■	■	■	■	■	
DataMate	17	■	■	■	■		■		■	
Challenger 3000	19	■	■		■	■	■		■	■
Himod	21	■	■	■		■	■		■	■
Deluxe System/3	23	■	■	■		■	■		■	■
Industrial Cooling Series (ICS)	23					■				■
Condensers / Drycoolers	25	■	■	■					■	■
<b>Server and Client-side UPS Products</b>										
Facility-Wide Surge Suppression Products		■	■	■	■	■	■	■	■	■
Room/facility UPS and Power Conditioning Products		■	■	■	■		■		■	■
<b>Racks and Enclosure Systems</b>										
Critical Monitoring and Connectivity Solutions		■	■	■	■	■	■	■	■	■
<b>DC Power Products</b>										
					■		■	■		






# LIEBERT INTELECOOL® 2 FLEXIBLE OUTDOOR WALLMOUNT COOLING FOR TELECOMMUNICATIONS SHELTERS AND OTHER STRUCTURES

Even though they look the same on the outside, telecom shelters and other remote buildings have very different requirements.

That's why the versatile Liebert InteleCool 2 isn't just another shelter air conditioner...it's a custom-configured model that fits your exact needs and budget. Whether you need a bare-bones system at minimum cost...top-of-the-line dual units with remote monitoring...or anything in between — Liebert InteleCool 2 is designed with the flexibility to match the multiple protection needs of today's communications industry. Units are available in 1.5, 2, 3, 4, and 5 ton models, 50 or 60 Hz, to accommodate varied cooling requirements.

## The Liebert InteleCool 2 system is perfect for many critical applications:

- Communications switching facilities including cellular, radio paging, microwave/satellite earth stations and PCS services.
- Modular electronic equipment structures.
- Many other locations requiring cooling in a lightweight, efficient package.



Painted steel or aluminum cabinets

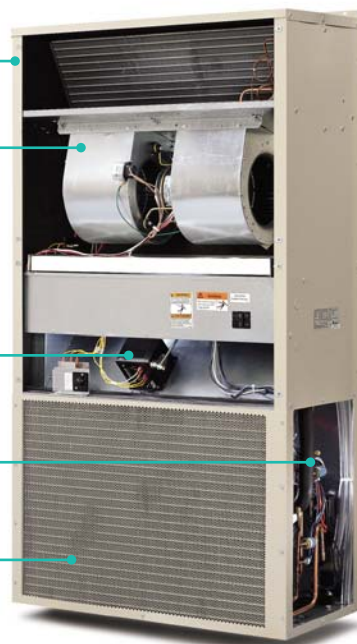
Heavy-duty double width blower

Choice of hermetic or high efficiency scroll compressor

Optional Economizer with spring-return actuator

Choice of compressor on right or left side of unit

Copper-tube, aluminum fin coils





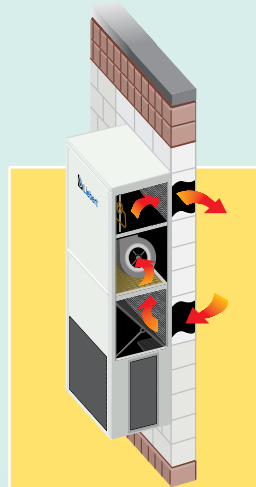
## Liebert IntelCool 2 product features include:

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- Self-contained design with all components enclosed in a painted steel or optional corrosion-resistant aluminum cabinet.
- Wide range of units available for year-round operation in ambient temperatures ranging from -20°F (-29°C) up to 125°F (52°C).
- Telecom Package incorporates popular options including low pressure switch, low pressure bypass and fan cycle control.
- Choice of hermetic or scroll compressor. Energy efficient scroll compressors perform quieter which helps reduce the sound of units when shelters are located near neighbors.
- With right hand or left hand compressor location, the space used by a pair of units can be reduced while improving accessibility to the compressors.
- Outside air options include economizer for cooling using outside air and fresh air damper which allows a continuous amount of air to be introduced through the unit.
- Choice of control, monitoring and communication options.
- Wired, piped, charged with refrigerant and fully factory tested as a system, to ensure easy, trouble-free installation and start-up.

### Economizer Option

The Liebert IntelCool® 2 can be equipped with an economizer system that uses modulating dampers to draw in filtered, outside ambient air for cooling when the exterior temperature drops below a pre-set level. These outside air temperature settings are field adjustable. The economizer saves energy and reduces component wear.



Monitoring  
Options  
Available





## LIEBERT FOUNDATION™

# MORE THAN “JUST A RACK” — THE “FOUNDATION” OF A MINI-COMPUTER ROOM

The Liebert Foundation system is a comprehensive, adaptive, and scalable electronic equipment protection solution designed to deliver maximum enclosure support today... and to fully accommodate future support needs in rapidly changing environments.

As an enclosure protection solution, the Liebert Foundation system brings together the full range of Liebert support systems into a single package. Depending on the level of protection required, this self contained system can start simply as a Liebert Foundation Enclosure to house and organize network components. Or you can specify it at any level of protection up to the self-contained Liebert Foundation MCR (Mini Computer Room) by adding comprehensive, computer-grade support features, including cooling, power, monitoring and security — all integrated in a seamless, qualified design.

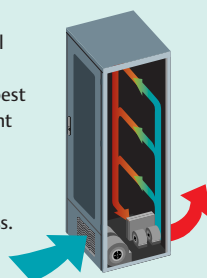
### Critical Features Designed To Protect Critical Equipment

<b>Capabilities</b>	<p>The capabilities and features of the Liebert Foundation MCR are designed to provide maximum protection for systems housed within the enclosure:</p> <p><b>Comprehensive, integrated Liebert design</b> — combines computer-grade support systems, including cooling, power, monitoring and security into a single, pre-tested system.</p> <p><b>Mobile design for quick deployment</b> — let’s you put a self-contained mini-computer room right where you need it, today or tomorrow.</p> <p><b>Agency approved as a system</b> — pre-qualified and ready for installation.</p>
<b>Features</b>	<p><b>ECM (Environmental Control Module)</b> — computer-grade air conditioning load matched to UPS.</p> <p><b>BCM (Back-up Cooling Module)</b> — provides cooling in the event of a power loss or can be utilized to reduce energy consumption with the <b>BCM Energy Saver Control</b>.</p> <p><b>Liebert On-Line or Line Interactive UPS</b> — provides back-up power protection.</p> <p><b>Liebert SiteNet Integrator</b> — alarms and status monitoring.</p>

### Exclusive Uninterruptible Environmental Support

#### Internal ECM

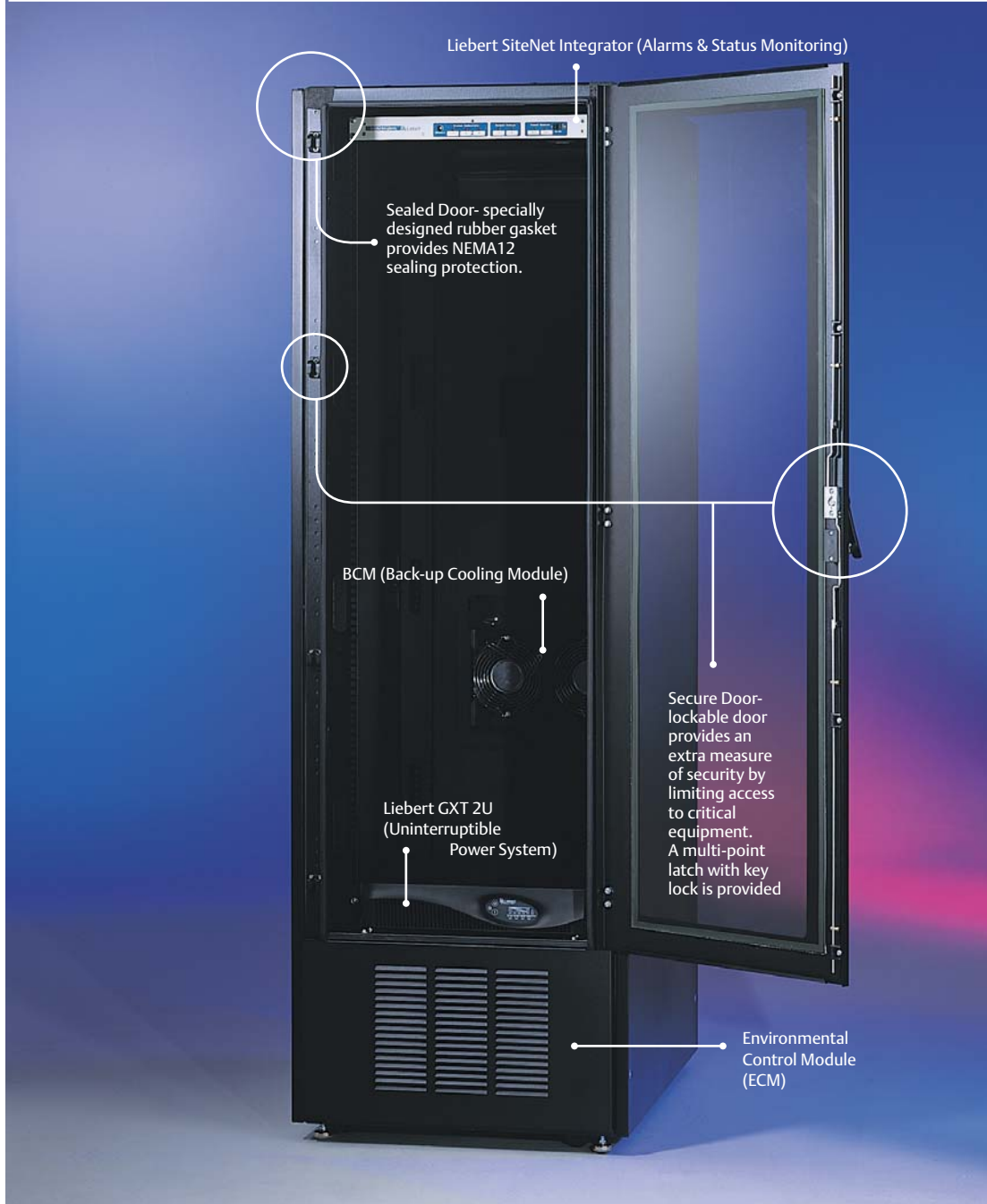
The integrated ECM (Environmental Control Module) - enclosure design promotes the best air circulation to prevent hotspots within the enclosure. Inside and outside air are isolated for maximum cleanliness.



#### Back-Up Cooling

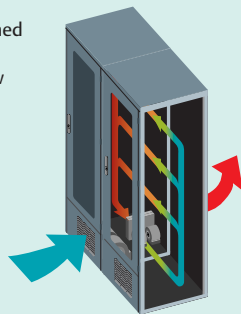
During high internal temperature or power outage conditions, the BCM (Back-Up Cooling Module) — powered by the enclosure’s UPS — is automatically activated, drawing in filtered outside air to ensure continuous air flow to protected equipment.





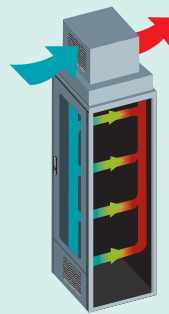
**Air Distribution**

Exclusive ECM conditioned air distribution duct ensures uniform air flow for multiple enclosures.



**External ECM**

The top mounted ECM allows maximum use of internal rack space or can be used with the internal/rack mount ECM to double cooling capacity.



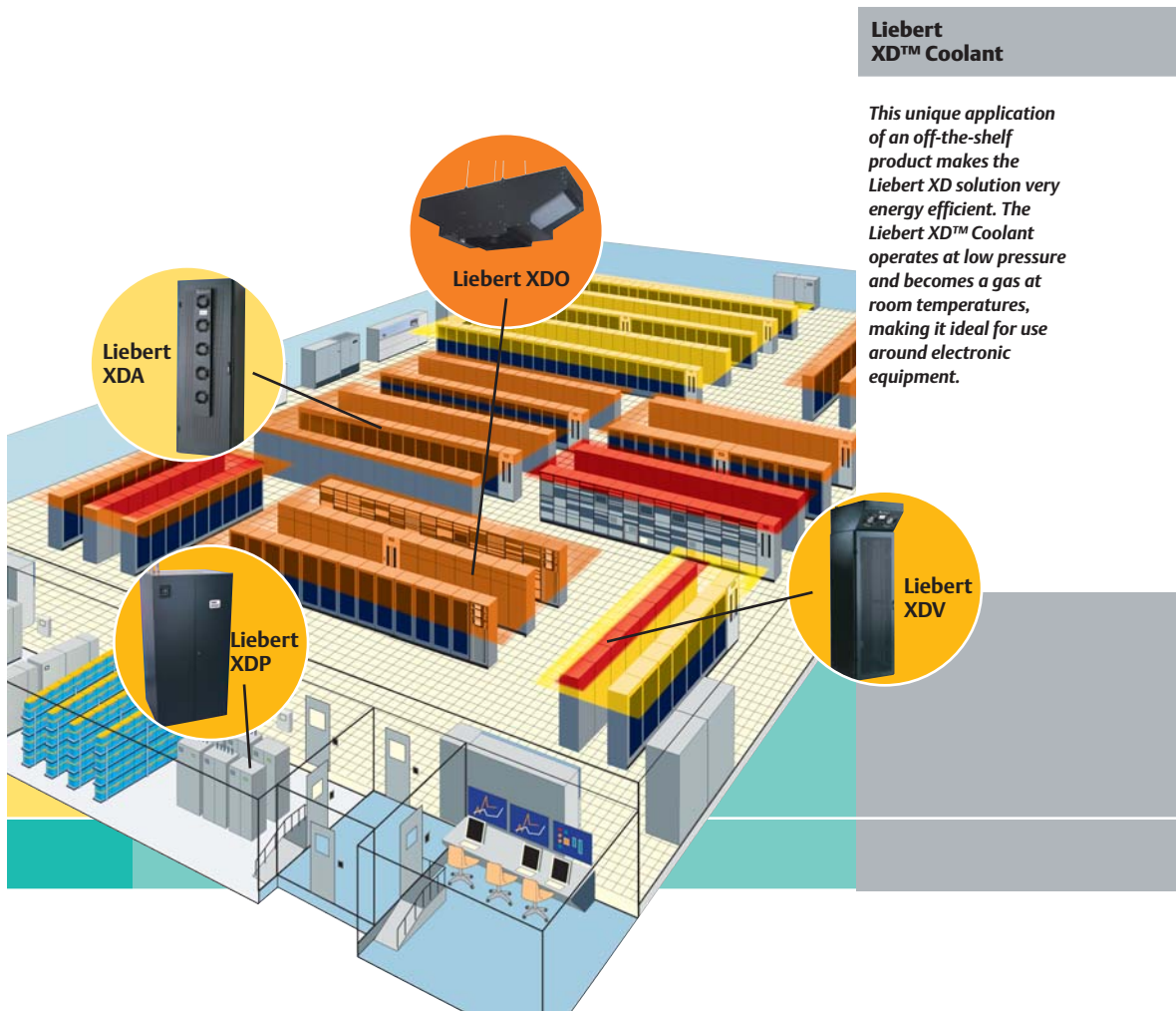
# SUPPLEMENTAL SENSIBLE COOLING X-TREME DENSITY SOLUTIONS FOR RACK, SPOT AND ZONE COOLING

Mission-critical heat removal systems can now be configured to target cooling directly at hot spots. Unique equipment designs also enable users to handle high heat loads without consuming additional floorspace.

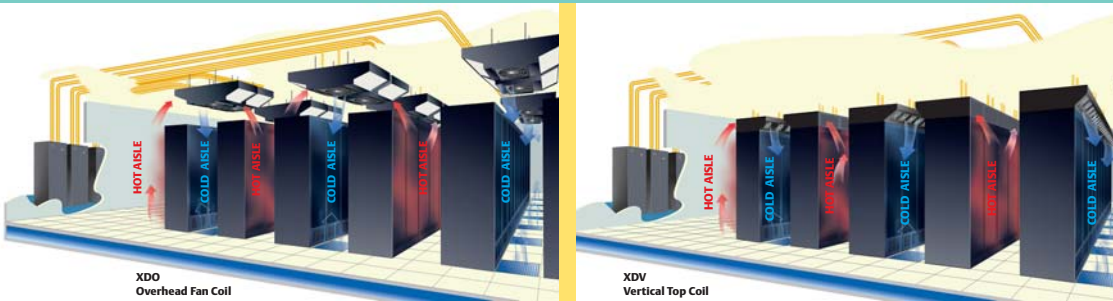
## The Liebert XD™ Solution Starts With The Best

A Liebert Deluxe System/3™ Mission-Critical Cooling System provides basic cooling, humidity control and air filtration.

The Liebert XD™ System provides supplemental sensible cooling for rack or zone cooling up to 1100 Watts / sq. ft.







The Liebert XD units work extremely well with the hot aisle/cold aisle design of raised floor applications by efficiently drawing hot air out of equipment racks and moving cool air into the cold aisle.

### Product features include:

- Energy efficient.
- Minimal floorspace requirements.
- Flexibility to accommodate various equipment layouts.
- Scalable - add or move fan coils as your needs change without the need for an electrician, plumber or HVAC technician.

### Liebert XD™ Series Zone And Spot Cooling: Flexible Configurations For Many Applications

#### Liebert XDC Chiller Unit

**A Chiller Designed For Direct System Configurations**  
The Liebert XDC Chiller is a specially designed indoor unit that connects directly to the Liebert XDO or XDV systems and provides chilled XD Coolant circulation and control. It ensures that the coolant is constantly above the dew point in the room, eliminating concern for condensation. Available in air and glycol cooled configurations.

#### Liebert XDP Pumping Unit

**Pumping Unit Designed For Indirect Configuration Applications**  
When a building chilled water system is available, the Liebert XDP Pumping Unit serves as an intermediary to isolate the building chilled water circuit from the XD Coolant circuit. It circulates coolant to the XDV or XDO at a temperature always above the dew point to prevent condensation.

#### Liebert XDO Overhead Fan Coil

**The Overhead Cooling Solution**  
The ceiling-mounted Liebert XDO mounts directly overhead in the cold aisle. It draws in hot air from the hot aisle, past a cooling coil and then discharges cool air into the cold aisle. This energy-efficient system takes up no floorspace. Uses XD Coolant.

#### Liebert XDV Vertical Top Cooler

**Space-Saving Solution That Cools From The Top**  
The Liebert XDV mounts vertically above or on the IT rack enclosure, drawing hot air from inside the cabinet or from the hot aisle. It then cools the air and discharges it down to the cold aisle. Uses XD Coolant.

#### Liebert XDA Air Flow Enhancer

**Cost-Efficient Solution Eliminates Internal Hot Spots**  
The Liebert XDA Air Flow Enhancer pulls air through an enclosure — eliminating internal rack hot spots in densely loaded racks. This lightweight fan unit mounts to the exhaust side of any enclosure. It moves the heat away from the IT equipment to the hot aisle where the cooling system is designed to handle.



# LIEBERT CSU3000 CHILLER

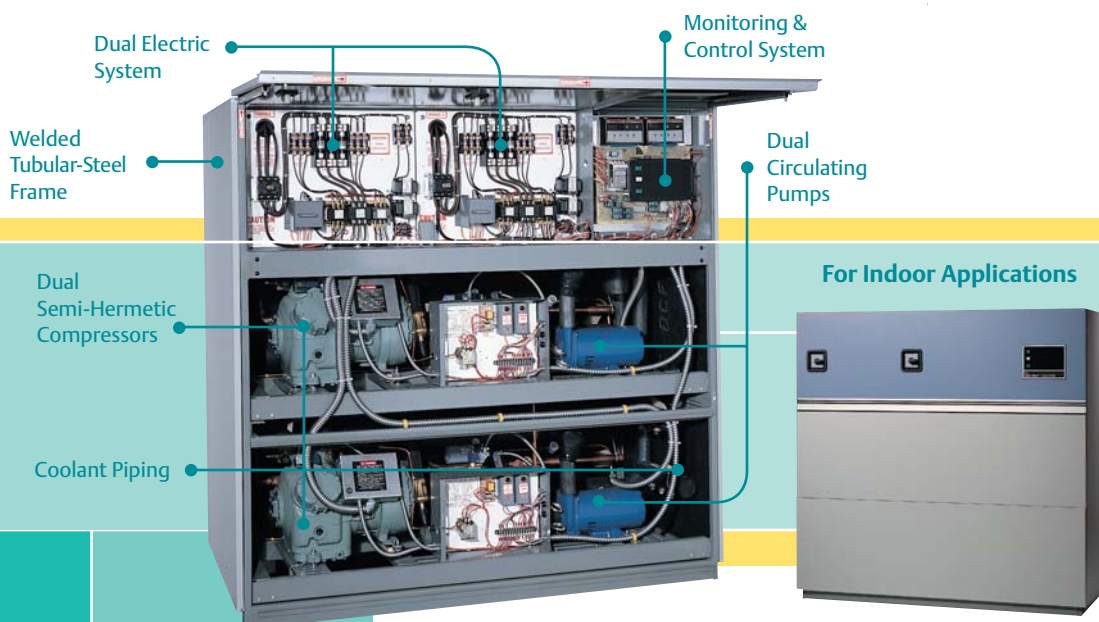
## CONSTANT, FAIL-SAFE COOLING FOR CRITICAL WATER-COOLED PROCESSES

The Liebert CSU3000 chiller is designed for reliability and precision to meet the needs of water-cooled industrial and medical equipment. Multiple independent modules with automatic switchover provide 100% back-up in the unlikely event of a failure in the primary module. As a result, no single component failure will interrupt operation. The pre-packaged system is easy to install. Front access simplifies service. Available in sizes ranging from 2.5 to 37 tons.

### Applications for the indoor Liebert CSU3000 chiller include:

- Industrial equipment, such as machine tools.
- Medical scanning equipment including — CT, MRI, PET, linear accelerator, CGR and RDS cyclotron, electron microscopes, gas chromatograph, cryogenic compressors and other sensitive systems.

Desirable Feature	Building Chiller	Liebert CSU3000
<b>Full Redundancy</b>	No	Yes, with automatic switchover
<b>Easy Installation</b>	Doubtful. piping, pumping and control may require special design	Yes. All pumps, switchover piping & controls are self-contained
<b>Efficiency</b>	Usually not. Chiller capacity probably is far in excess of computer needs, making operation of the chiller inefficient during some periods	Yes. Highest EER in industry
<b>Monitoring</b>	Not available	Yes. Local and optional remote
<b>Proven Design</b>	Tapping into building chillers with needed controls is typically a "first-time" approach	Yes. Factory-assembled and tested
<b>Easy Expansion</b>	Difficult. Redesign and resizing of pumping equipment required	Yes. Dual capacity increases cooling capacity at the touch of a button
<b>Precise Control of Flow and Temperature</b>	More difficult. Piping length and fittings can introduce transport lag	Yes. Integral Control System



## LIEBERT PROCESS FLUID CHILLER PACKAGED, PRECISE FLUID COOLING FOR MEDICAL AND INDUSTRIAL EQUIPMENT

Many process systems come with a built-in fluid cooler, ready for connection to a reliable outside source of coolant. To fill this need, the Liebert Process Fluid Chiller provides dedicated, capacity-matched cooling, proper temperature and waterflow, and year-round operation for heat-generating industrial and medical equipment. These self-contained systems are designed for outdoor installation to save valuable floorspace — yet quiet enough for indoor cleanroom or factory floor operation. Available in flow rates from 1.5 to 10 tons, the Liebert Process Fluid Chiller is factory-tested, piped, wired and charged for easy set-up and operation.

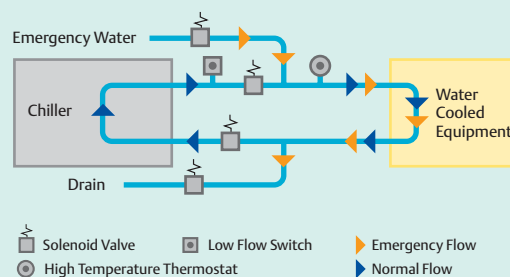
### Applications for the outdoor Liebert Process Fluid Chiller include:

- Industrial equipment such as plastics injection molding machinery, induction heating and melting systems, machine tools, linear accelerators, food processing cookers, pharmaceutical batch processors and other heat-generating equipment.
- Medical scanning equipment including — CT, MRI, PET, linear accelerator, CGR and RDS cyclotron, electron microscopes, gas chromatograph, cryogenic compressors and other sensitive systems.

### Liebert Process Fluid Chiller product features for outdoor applications include:

- Components designed to provide year-round operation from -30°F (-34°C) to 105°F (41°C) outdoor ambient temperature.
- Reliable refrigeration components featuring hermetic compressor, refrigerant dehydrator, expansion valve and refrigerant receiver.
- Closed-circuit systems with stainless steel pump and heat exchanger provides clean, non-ferrous cooling loop.
- Optional 50 gallon or 100 gallon stainless steel tank provides steady temperature control during cycling loads.

### Optional Emergency Water Switchover



Recommended by medical equipment manufacturers.

For Outdoor Applications

## LIEBERT MINI-MATE2™

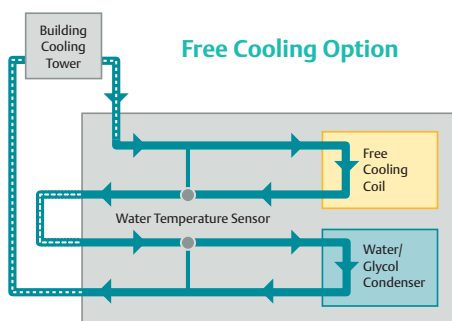
# OVERHEAD COOLING IN A VARIETY OF CAPACITIES AND CONFIGURATIONS

Precision cooling and humidity control of small areas — such as computer, control and equipment rooms — is a lot easier thanks to the Liebert Mini-Mate2. Installed above a dropped ceiling to save valuable floorspace, the Liebert Mini-Mate2 is designed to fit into tight locations with front access on most units. A wide variety of options is available to meet many applications.

Available in 1, 1.5, 2, 3, 5 & 8 ton capacities, the Liebert Mini-Mate2's flexible design provides air distribution for direct supply/return (1-3 tons) or ducted applications (1-8 tons). It includes controls for temperature, humidification and dehumidification for year-round operation. Models are available with air cooled, water/glycol cooled, freecooling Econ-O-Coil or chilled water heat rejection systems.

### Liebert Mini-Mate2 product features include:

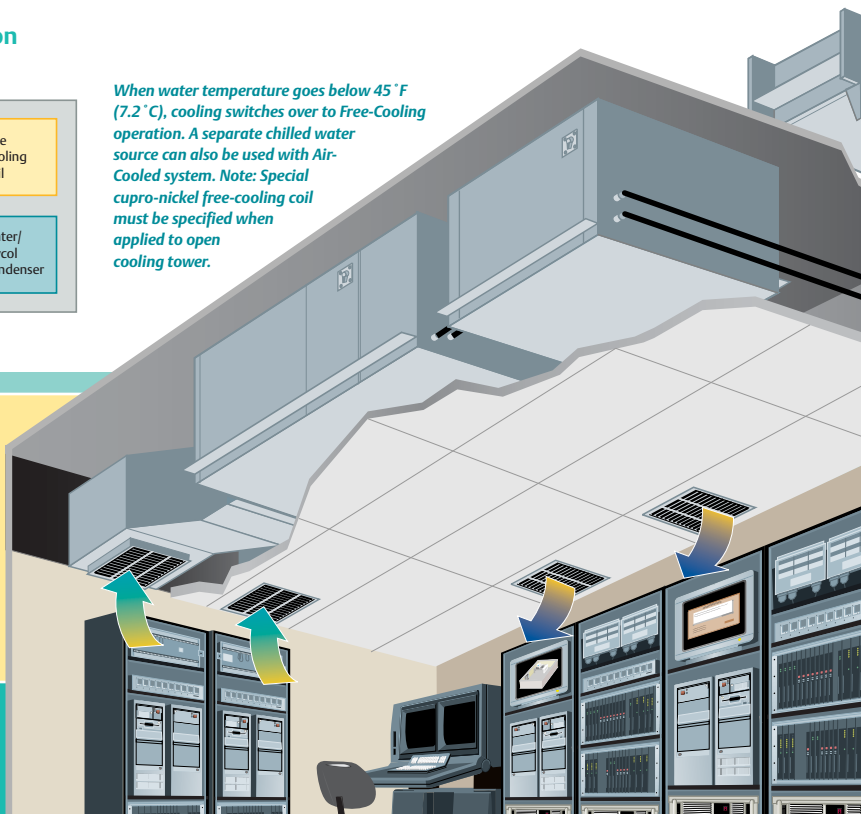
- Self-contained or split systems — allows for fitting systems with a variety of architectures.
- Reliable refrigeration components featuring rotary or scroll compressors with copper tube aluminum fin coils for high efficiency.
- Easy-to-use menu-driven microprocessor control. Optional room sensors available.
- 1-3 ton models with grille/plenum to fit 2'x4' ceiling grid for direct supply and return air distribution.
- Filter box, fan speed and/or blower options to handle ducted applications.
- Choice of hot water, stainless steel or stainless steel with SCR reheat.
- Hot gas bypass for low load applications.



*When water temperature goes below 45°F (7.2°C), cooling switches over to Free-Cooling operation. A separate chilled water source can also be used with Air-Cooled system. Note: Special cupro-nickel free-cooling coil must be specified when applied to open cooling tower.*



The components in units are located for easy service (1 ton self-contained unit shown)





## LIEBERT DATAMATE™

# COMPACT INDOOR SYSTEM FEATURES

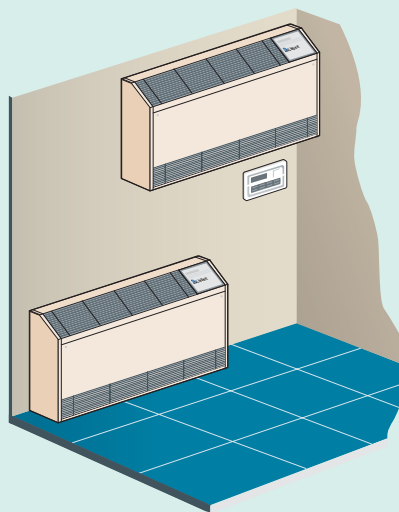
## SPACE SAVING DESIGN

Ideal for applications where people and sensitive electronics must occupy the same space, the Liebert DataMate provides 1.5, 2 or 3 tons of cooling capacity from a compact unit that requires little or no floorspace. Its low profile permits floor mount or wall mount installation, allowing more room for critical equipment.

Built with rugged components, the Liebert DataMate is designed to control temperature and humidity around-the-clock for year-round operation. The Liebert DataMate can manage the environment of smaller areas — or provide spot cooling in larger rooms. Models are available with upflow air distribution for air cooled, water/glycol cooled or chilled water heat rejection systems.

### Liebert DataMate product features include:

- Easy to operate with the Liebert small systems microprocessor controller with LCD display.
- Low noise levels through direct drive centrifugal fan with automatic or manual speed selection.
- Automatic head pressure control permits operation down to -20°F (-29°C) ambient.
- Slim, low-profile design offers minimal floorspace and when wall-mounted, no floorspace is required



# LIEBERT CHALLENGER™ 3000

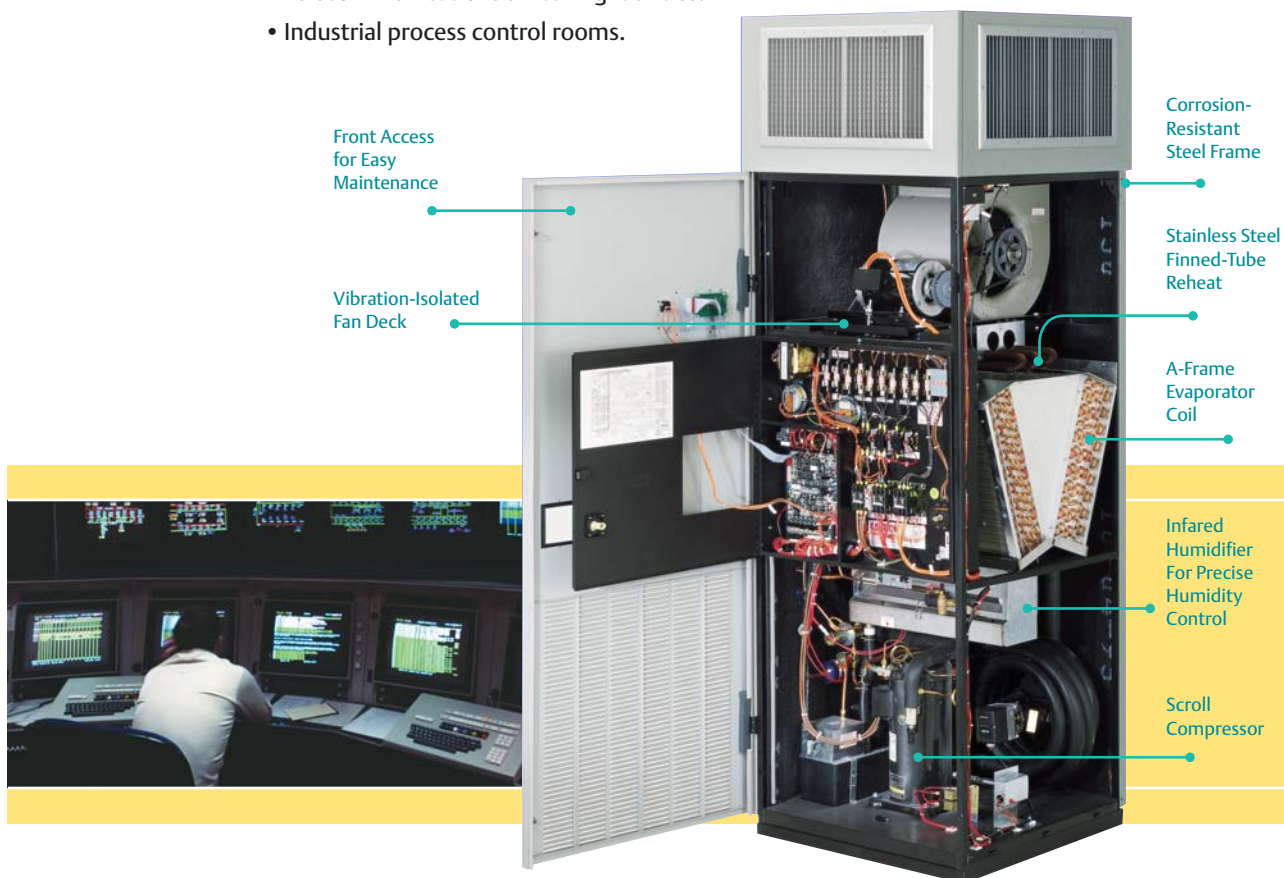
## A COMPLETE PRECISION AIR CONDITIONING SYSTEM IN LESS THAN SEVEN SQUARE FEET

Designed to fit in the crowded confines of an equipment room or laboratory, the Liebert Challenger 3000 offers an extremely compact footprint for facilities where space is at a premium. This versatile unit is available in single circuit, self-contained or split systems to fit a variety of site plans. All of Liebert Challenger 3000's critical components are accessible from the front, so the unit can be installed in a corner or flush against other equipment.

The Liebert Challenger 3000 provides complete environmental control, including temperature, humidity and air filtration. A choice of humidification control includes an infrared humidifier, to provide instantaneous water vapor, or a steam generating unit. Electric, SCR and hot water reheat options are also offered

**The compact Liebert Challenger 3000 is a perfect match for many critical applications:**

- Computer rooms.
- Laboratories and medical imaging suites.
- Telecommunications switching facilities.
- Industrial process control rooms.

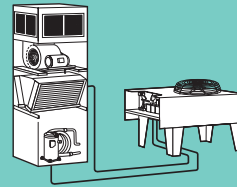


## Liebert Challenger 3000 product features include:

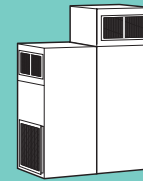
- 3 and 5 ton capacities.
- Reliable refrigeration components featuring scroll compressors, A-frame evaporator coils, all factory pre-piped, wired, and tested in a rugged, easy-access tubular-steel frame.
- Designed for upflow or downflow floor mounting in self-contained or split-systems.
- A choice of air cooled, water/glycol cooled, GLYCOOL™ Econ-O-Coil or chilled water heat rejection systems.
- Outdoor condenser, outdoor drycooler or indoor condensing unit options.
- Variety of filter efficiency options.
- Several motor/blower options to meet various CFM and ESP applications.

## Liebert Challenger 3000 offers multiple options for application flexibility

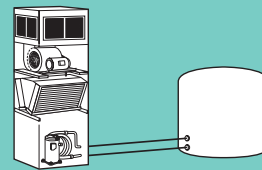
### Air-Cooled Self-Contained System



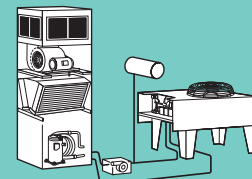
### Indoor-Piggyback Centrifugal



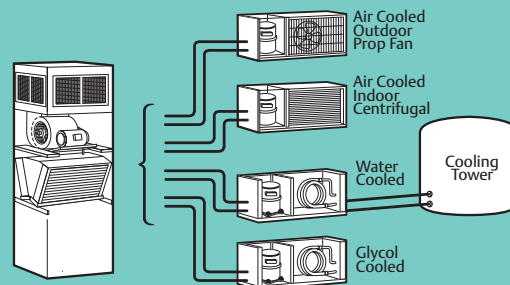
### Water-Cooled Self-Contained



### Glycol Cooled/GLYCOOL Self-Contained System



### Split-System



LIEBERT HIMOD™

# A QUIET, EFFICIENT COOLING SOLUTION FOR MEDIUM-SIZED ELECTRONIC HEAT LOADS

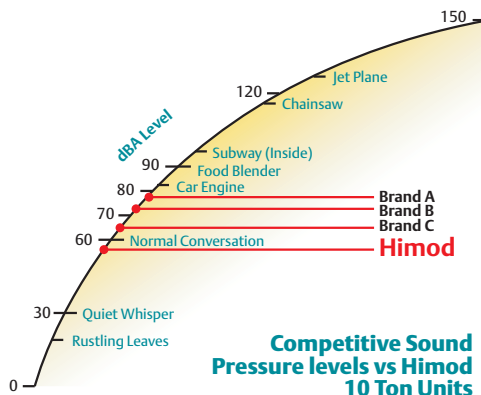
The Liebert Himod precision air conditioning system provides precise temperature regulation, humidity control and air filtration required by electronic equipment in computer rooms, telecommunications sites and other high tech environments. Featuring total front access for installation and service, the Liebert Himod fits easily into cramped spaces, leaving more room for critical electronic equipment. Quiet operation makes it a user-friendly solution — especially when installation is in leased space or adjacent to areas sensitive to sound.

Motorized impeller fans with variable speed features, combined with a specially designed larger air chamber, provide “lower noise” characteristics demanded in today’s applications. The unit is also designed with a single refrigerant circuit to save on installation costs.

The Liebert Himod is offered in models designed specifically to operate with “green” refrigerant R407C. The Liebert Himod is also available with R22 refrigerant for customers whose existing installation has not yet converted to the new refrigerant.

**The extremely efficient Liebert Himod is a perfect match for many critical applications:**

- Computer rooms and data centers.
- Telecommunications switchgear and cellular communications facilities.
- Laboratories, standards rooms and calibration facilities.
- Industrial control rooms and process plant areas.
- UPS and battery rooms.
- Medical applications, including diagnostic equipment control suites.







## Liebert Himod product features include:

- Choice of air cooled, glycol cooled, GLYCOOL™ Econ-O-Coil or Dual-Cool heat rejection systems.
- 8, 10 & 12 ton capacities.
- High efficiency operation.
- Fast response microprocessor controls minimize short cycling and other wasteful operating patterns.
- Quiet operation.
- Available with R407C or R22C refrigerant.
- Steam generating humidifier.

### Upflow Configuration

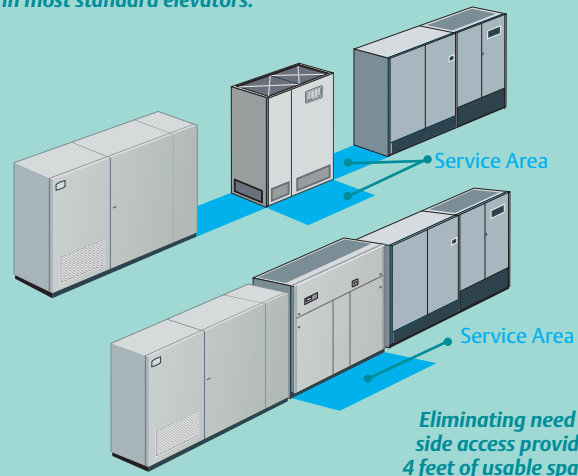


### Downflow Configuration



## Compact Size, Front Accessibility

*The Liebert Himod occupies just 17 square feet of floorspace and can be located in areas that are packed with electronic equipment. But when choosing a precision cooling system, you also need to consider the area required to gain entrance to the inside of the unit for service. The Liebert Himod can be completely accessed from the front and top of the unit, eliminating the need for side clearance. With room floorspace valued at a premium per square foot, the small total footprint of the Liebert Himod makes economic sense. The size of the unit also allows easier installation in existing facilities since it will fit in most standard elevators.*



# LIEBERT DELUXE SYSTEM™/3

## MARKET-LEADING PRECISION

## AIR CONDITIONING FOR SENSITIVE

## ELECTRONIC EQUIPMENT

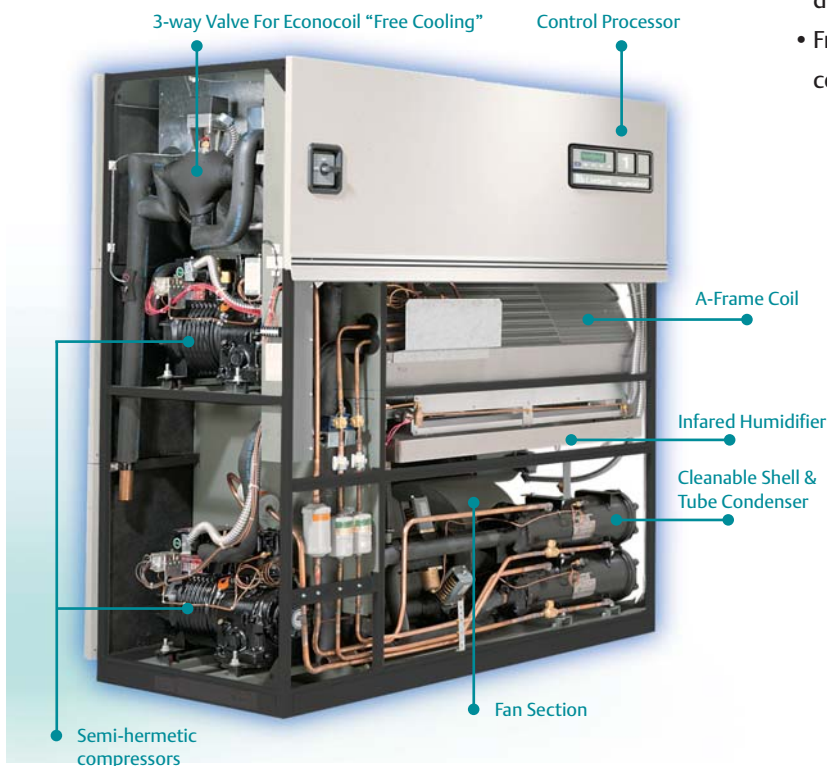
High performance, sensitive electronic equipment requires precise, reliable control of room temperature, humidity, and air flow for proper operation. The high cost of downtime demands uncompromising reliability and precision year after year. The Liebert Deluxe System/3 has been meeting this challenge for decades and has been long recognized as the industry standard in environmental control for computer dependent operations. It is available in capacities ranging from 6 to 30 tons in compressorized systems or 10 to 65 tons in chilled water systems and is available in many different configurations to match unique applications.

**Built to the highest specifications in the industry with proven components and design, the Liebert Deluxe System/3 is ideal for critical applications including:**

- Computer rooms.
- Telecommunications central switching offices.
- Industrial process control centers.
- Laboratories.
- Medical facilities.

**Liebert Deluxe System/3 product features include:**

- Flexible heat rejection configurations: air cooled, water cooled, glycol cooled, GLYCOOL™ and chilled water models can meet any installation requirement.
- Upflow (ducted) or downflow (raised-floor) configurations available.
- A-frame evaporator coil.
- High efficiency, dual semi-hermetic compressors.
- Includes factory installed cooling, reheat, dehumidification and humidification.
- Frame coated using Autophoretic process for a corrosion-resistant finish.



Dual compressors with dual refrigerant circuits for system redundancy, reliability and maximum energy efficiency.

A-frame evaporator coil.

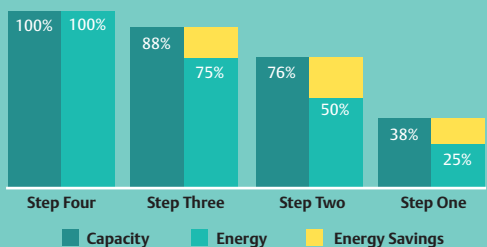
Infrared humidifier provides instantaneous water vapor, regardless of water quality.



# Liebert Deluxe System/3 Energy Saving Options

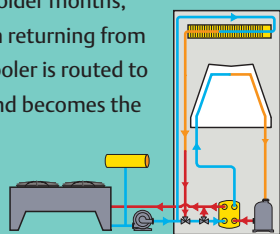
## The Four Step System

The Liebert Deluxe System/3 Four-Step System achieves higher levels of energy efficiency through an integration of two high-efficiency compressors with capacity control valves, an advanced microprocessor control system, and a computer-optimized cooling coil.



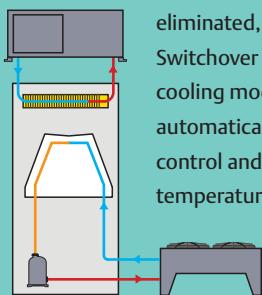
## GLYCOOL™ System

The Liebert GLYCOOL freecooling system incorporates a conventional glycol cooled unit along with a second cooling coil, which allows the system to take advantage of cooler outdoor temperatures to reduce or eliminate compressor runtime. During colder months, the glycol solution returning from the outdoor drycooler is routed to the second coil, and becomes the primary source of cooling for the room.



## Dual-Cool

A conventional air or water cooled Liebert Deluxe System/3 is enhanced with a second cooling coil which utilizes a central building chiller supply. During times when the chiller supply is available, compressor operation is eliminated, reducing energy costs. Switchover between the two cooling modes is performed automatically by a microprocessor control and comparative temperature sensor.

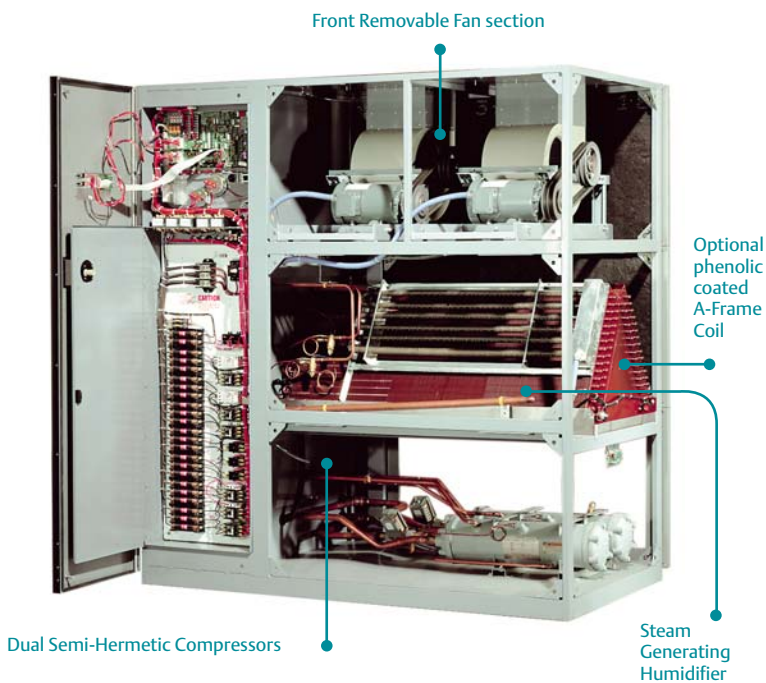


# LIEBERT INDUSTRIAL COOLING SERIES (ICS) RUGGED, HIGH CAPACITY COOLING FOR INDUSTRIAL ENVIRONMENTS

Built to the same high standards as the Liebert Deluxe System/3 environmental control units, the Liebert Industrial Cooling Series (ICS) is designed for the physical needs of industrial sites, with rugged and serviceable components to ensure continuous operation. These rugged precision air conditioning systems are available in capacities from 10 to 60 tons and utilize microprocessor control technology to provide precise temperature and humidity regulation.

The Liebert ICS features an independent dual blower upflow air discharge system, front removable for easy maintenance. Units can be specified with optional corrosion resistant coatings and components to provide longer component life. Models are available with air cooled, water/glycol cooled, GLYCOOL™ Econ-O-Coil or chilled water heat rejection systems.

System Component	Protective Element	Availability
Cabinet and Frame	Scratch-resistant two-component epoxy paint the industry standard for durability	Standard
Fans	Epoxy Coating Corrosion resistant paint extends component life	Standard
Finned Tubular Reheat	Stainless steel reheat provides longer service life in harsh environments	Standard
Drain Pan	Stainless steel low maintenance, corrosion resistant	Standard
Gasketing	Closed cell gasketing Provides an air tight seal to prevent infiltration of corrosive, untreated air	Optional
A-Frame Coil (Slab Coil 60 Ton)	Phenolic coating Dipped and baked for extra protection in corrosive conditions	Optional
Water Cooled Condensers	90/10 Cu-Ni tubes marine specification copper and nickel construction Stainless steel tubes Rustproof design for harsh water conditions	Optional
Air Cooled Condensers	Phenolic coated coils Additional protection against corrosion	Optional





# LIEBERT CONDENSERS AND DRYCOOLERS

## RELIABLE HEAT REJECTION TO MATCH MANY CONDITIONS

Liebert manufactures its own line of air cooled condensers and drycoolers that are precisely matched to the heat rejection requirements of our air conditioning and fluid chiller systems for any ambient temperature or altitude.

The low-profile direct drive propeller fan type air cooled condensers and drycoolers utilize either one or two separate circuits. Each balances the heat rejection of the corresponding compressor. Constructed with an aluminum cabinet and a copper-tube aluminum-fin coil, these exceptionally dependable units are corrosion resistant and designed to operate for prolonged periods of exposure in the worst weather conditions.

Liebert condensers and drycoolers are fully factory wired and tested for easy installation. Only electrical and refrigerant connections need to be made at the site. They are available in a wide range of capacities, as well as horizontal and vertical airflow configurations.

Standard units are available in ambient temperature ratings of 85 to 105°F (29 to 41°F). Increased coil surfaces available for ambients up to 120°F (49° C). For colder climates, the exclusive Liebert Lee-Temp option permits operation in climates as low as -30°F (-34° C).

The Liebert drycooler product line also includes large models with 6-10 fans for multi-unit evaporator applications. These units are designed to reduce the outdoor footprint in space-sensitive applications.

### Quiet — And Even Quieter

All Liebert condensers are designed to operate at a minimal noise level. This is accomplished as the result of the Liebert fan blade design combined with a cabinet structure that minimizes air resistance. In applications where noise restrictions are a concern and further sound reduction is required, the Liebert Quiet-Line™ family of condensers and drycoolers offer levels of less than 57 dBA. Designed for outdoor installation, these units reduce unit operating noise even further through the use of lower speed motors and a larger coil surface.





# A Full Range Of Specialized Heat Rejection Products

## Liebert Drycooler



- Low noise level
- Easy installation and service
- Maximum reliability
- Multiple methods for wintertime control
- Available pump package
- A wide range of products to fit every application

## Liebert Air Cooled Prop Fan Condenser With Lee-Temp



The Liebert Lee-Temp Head Pressure Control System is designed to maintain proper operating head pressures in outdoor temperatures down to -30°F.

## Liebert PB Series



Through the wall outdoor heat rejection for those applications where outdoor heat rejection location is not practical, like high rise buildings or areas with restricted access.

Available with Lee-Temp head pressure control

## Liebert Pump Packages



Standard Packages .75 to 7.5 H.P.  
Single and dual pumps  
(Piping shown optional)

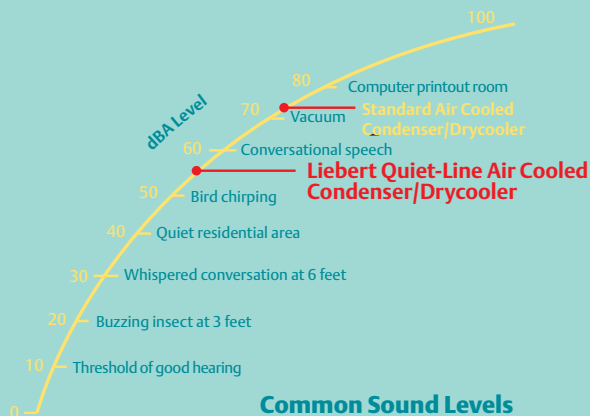


Non-standard Packages 7.5 to 50 H.P.  
In special fiberglass housings.

## Liebert 10 Fan Drycooler



Liebert's 10 fan drycooler is a space-saving unit designed to provide heat rejection of 150 tons in a footprint of 123 square feet — 40 percent less space than required for two conventional 75 ton drycoolers.



For very low noise applications the Liebert quiet line models achieve additional sound reduction with slow speed motors (570 rpm). Quiet enough to make that important call.

# ENVIRONMENTAL SYSTEM MONITORING: THE KEY TO CONTINUOUS OPERATION

The reliability of your computing and communications systems will be a direct result of the reliability of the environmental systems that help maintain their proper operation. This requires monitoring of these support systems as assurance that vital functions will continue without interruption.

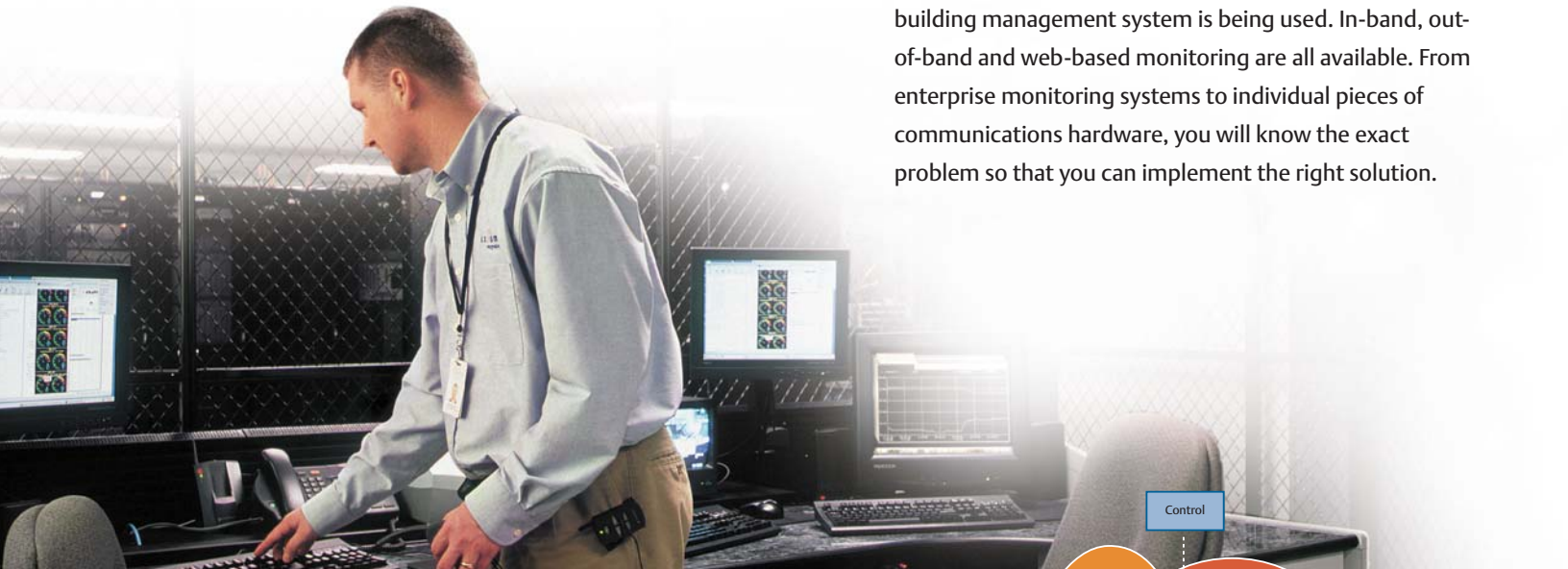
## What You Don't Know Can Hurt You

A small problem in a critical facility can quickly escalate into a disaster — knowing what is happening with your support equipment, so you can keep that protective “envelope” at peak operating efficiency, is vital to system reliability. Liebert offers full-scale monitoring and control of critical support systems by providing the ability to gather operating information from each piece of equipment and pull it together in one central location.

## Different People Need To Know Different Things

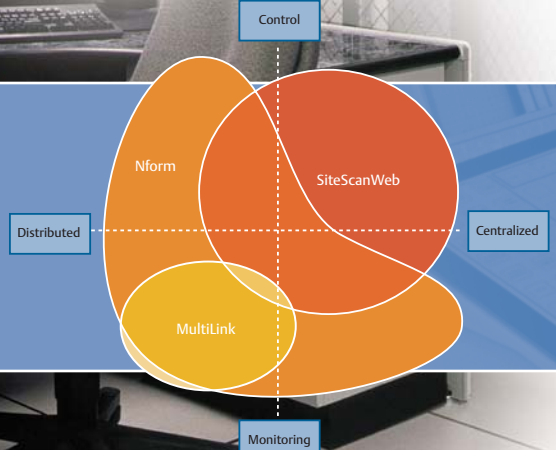
Liebert offers you more monitoring solutions than anyone else because getting the right information about your support equipment to the right people — with the right level of urgency — is so important to system availability.

We do this by allowing you to receive and use information from your Liebert equipment's microprocessor controls...no matter where it is located or what communications protocol, operating platform or building management system is being used. In-band, out-of-band and web-based monitoring are all available. From enterprise monitoring systems to individual pieces of communications hardware, you will know the exact problem so that you can implement the right solution.



## Let Us Watch It For You

Continuous remote monitoring of environmental equipment and other facility systems is also available from Liebert through our Customer Response Center. This capability provides 24 x 7 watchdog service through an environmental site management program designed to meet your precision air conditioning equipment service requirements. It not only reports site problems, but initiates immediate action using a predetermined customer response plan — including access to factory-trained Liebert Global Services technicians who are quickly dispatched to your location when service is needed.





# Liebert Has The Right Monitoring Solution For Any Mission-Critical Cooling System

## Local And Remote Monitoring Panels

These units provide basic monitoring and control for single or small groups of equipment either at the equipment location or to a remote site.

*Products include:*

- Liebert Universal Monitor
- Liebert Autochangeover Controllers
- Liebert Remote Contact Monitor Panel
- Liebert SiteNet® Integrator

## Leak Detection

Liebert Liqui-tect® leak detection systems alert facility personnel to the presence of leaking fluids before serious damage results. They provide quick sensing and accurate reporting of leaks below the floor, above the ceiling or at the perimeter of a room.

*Products include:*

- Liebert Liqui-tect Panel Two Channel Direct Read Leak Detection
- Liebert Zone Leak Detection Kits
- Liebert Point Leak Detection Sensor

## Fundamental Monitoring

Liebert OpenComms Nform™ is a centralized monitoring and communications software package that combines full-scale monitoring with cost-effective deployment through the use of the existing network infrastructure.

*Products include:*

- Liebert OpenComms Nform Software
- Liebert OpenComms Web Card
- Liebert OpenComms NIC

## Advanced Monitoring

Liebert SiteScan® Web offers comprehensive, centralized monitoring, control, data analysis and reporting for a full range of computer support systems. It provides web-based site monitoring, alarm management and trending/analysis for critical sites.

*Products include:*

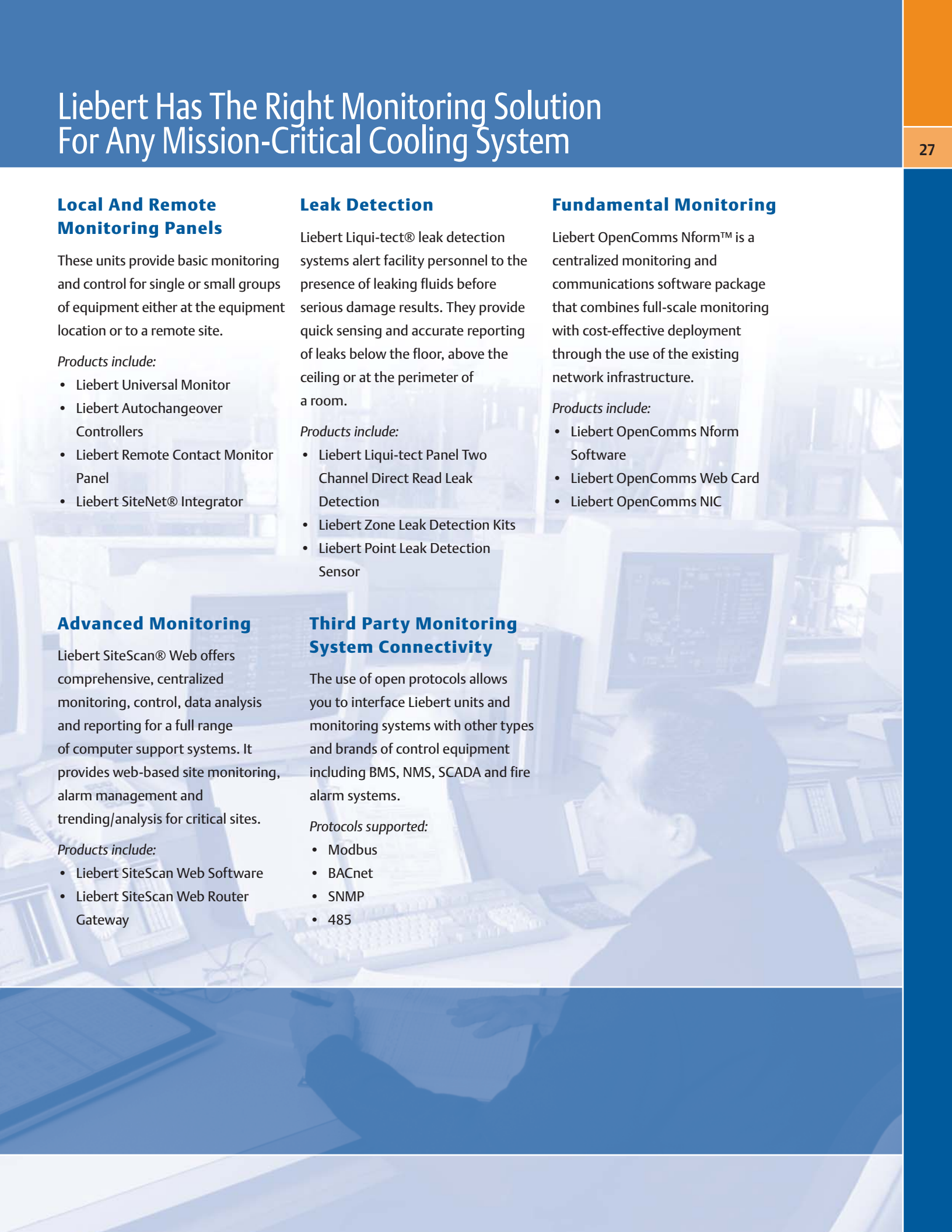
- Liebert SiteScan Web Software
- Liebert SiteScan Web Router Gateway

## Third Party Monitoring System Connectivity

The use of open protocols allows you to interface Liebert units and monitoring systems with other types and brands of control equipment including BMS, NMS, SCADA and fire alarm systems.

*Protocols supported:*

- Modbus
- BACnet
- SNMP
- 485



# FROM DESIGN TO FINAL ASSEMBLY... HERE'S WHAT MAKES THE DIFFERENCE

Everything we do is focused towards you...the customer. The Liebert design and manufacturing philosophy covers every aspect of the product from advanced engineering...to providing detailed equipment drawings...to manufacturing quality in our ISO 9000 certified production facilities...to assuring on-time delivery. We want you, your consultants and your contractors to depend on Liebert and our ability to always meet your needs from start to finish.

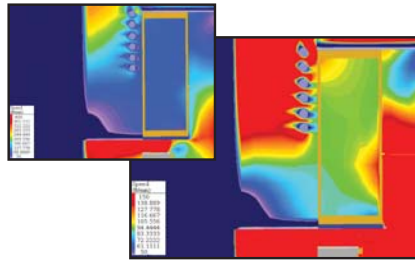
## Whatever It Takes To Meet The Needs Of Our Customers

Liebert utilizes state-of-the-art tools, including advanced computer-aided design and simulation tools, to constantly refine the design of our products, including:

**Solid Edge™** — a CAD/CAM system that utilizes 3D technology to reduce design times and improve product quality.

**CFD™** — software that is designed to calculate airflow, heat transfer and contamination distribution by simulating building heating and ventilation systems. It employs the techniques of computational fluid dynamics (CFD) in order to address the design and optimization of these systems.

We also offer other resources and tools to help create the right product solution. Our Special Features Authorization capability allows cost-effective customization. Submittals and guide specs help you select the right system configuration. Comprehensive literature and technical manuals make sure that you have the most complete and up-to-date information on the operation of your Liebert product.



CFD software permits Liebert engineers to optimize air flow within each system.

Commitment to  
Quality



**Manufacturing for durability** — Control over manufacturing process is your assurance of product durability and performance.



**Coil manufacturing** — We are the only company in our business that makes its own coils to assure quality.



**Autophoretic coating of frames** — Assures complete coverage for maximum corrosion protection.



*It's important to know that whether it's scheduled preventive maintenance...or an emergency situation, service support will be quickly and expertly handled.*



## Making Sure You Always Get The Right Solution

There are many places where Liebert equipment is vital — such as computer rooms, telecommunications centers, high density Internet hosting sites, colocation facilities and industrial control rooms. Our application engineers are experienced in all of these situations and can make sure you always get a cooling solution that is tailored to your exact needs. To help maximize the performance and energy efficiency of the unit selected, they also utilize tools such as TileFlow™, a simulation software package for the improvement of airflow distribution in raised-floor data centers.

## Testing To Always Be The Best

Full scale analysis and evaluation of our air conditioning products during all phases of development and production is your assurance of the most advanced performance and highest quality.

## A Company-Wide Commitment To Excellence

Our employees take great pride in the products they build. Liebert products are manufactured under the stringent manufacturing and quality control processes of ISO 9000 certification, using the latest computer-controlled equipment. All phases of production are carefully monitored and controlled.

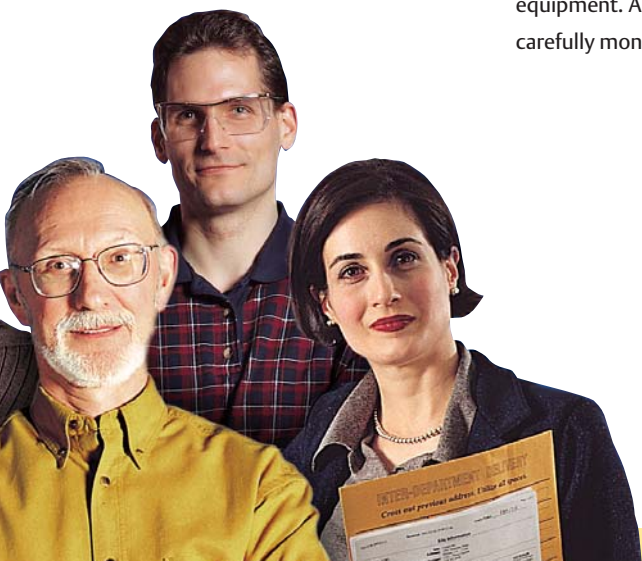
## Someone There To Help Keep You Up And Running

After you purchase your Liebert precision cooling system, there will always be someone who can answer any questions or operational problems you may have. We are committed to providing comprehensive service training programs to all of our service engineers and technicians.

Liebert's service capabilities, including preventive maintenance programs, can increase the availability of your precision cooling equipment by reducing downtime due to component failure. This is especially valuable to companies who do not have a dedicated technician on-site to troubleshoot equipment.

## Building Code Approvals Made Easy

Our standard 60Hz products are NRTL-C listed/certified. NRTL-C meets both U.S.A. and Canadian government safety standards, providing fast, hassle-free inspection and building code approvals.



Our state-of-the-art psychrometric laboratory allows us to test units under a wide variety of temperature and humidity conditions. 60-Ton capability is the largest in our industry.

**Powder coated exterior panels** — Solvent-free process provides a durable, high quality, scratch-resistant finish.

**Quality maintained along full production line** — over 400 check points along the way.

**Final testing** — Your assurance that everything is done right.

# ENVIRONMENTAL SERVICE SOLUTIONS TO KEEP YOU UP AND RUNNING

Liebert offers more ways to handle your precision air conditioning warranty and maintenance requirements than any other source. Service and support specialists are located everywhere you need them to be.

Field service is provided by The Liebert Service Partner Network™ — a nationwide network of locally-based service partners, with factory-trained technicians that handle installation, support and maintenance of Liebert Mission-Critical Cooling products.

Warranty inspection at the time of start-up by these technicians can ensure proper operation and tune the performance of the unit to the application. This can be instrumental in assuring a long unit life.

The variety of Liebert service offerings includes warranty service, emergency service, preventive maintenance, and general repairs. We offer 24 x 7 emergency dispatch service through our Customer Response Center. This facility provides immediate access to factory trained technicians, located within your own area, who are quickly dispatched to your location when service is required.

Liebert's preventive maintenance solutions provide you with a choice of coverage options — each designed to meet your specific support requirements. These offerings are ideal for those who require the peak operating efficiency, reliability and uptime that only a comprehensive maintenance program can deliver.

Liebert also offers a site management program that creates a customized service package for your operation by offering a single point of contact for all your service needs. It gives you a proactive action plan to provide operational support and guidance for your critical facility.

## Extended Warranty Protection Options

Liebert continues to set the industry standard by offering maximum availability service plans when you purchase new Liebert Mission-Critical air conditioning equipment — including extended parts and labor coverage.

Our optional warranty protection programs allow you to choose the coverage that best fits your needs and include the following:

- First year warranty labor.
- First year comprehensive labor.
- Second year parts and compressor.
- Four-year compressor.
- Four-year parts and compressor.
- Four-year parts and compressor, and first year warranty labor.

## Preventive Maintenance Programs-Environmental Service

	Basic (E1)	Essential (E2)	Preferred (E3)	Preferred Plus (E4)
<b>Response Time*</b>	4 Hours	4 Hours	4 Hours	4 Hours
<b>Emergency Service**</b>	24x7	24x7	24x7	24x7
<b>Preventive Maintenance</b>	8am-5pm	8am-5pm	8am-5pm	8am-5pm
<b>Inspection and PM Labor</b>	4 per year	6 per year	4 per year	6 per year
<b>Belts and Filters Included</b>	No	No	Yes	Yes

### Power Contracts

Power contracts cover Liebert UPS equipment. This service is sold separately from the above service offerings

### Remote Monitoring

Remote Monitoring contracts can cover both environmental and power equipment. These services can be added to any of the above service levels.

\* Typical response in most metropolitan areas \*\* Plus time and material  
Parts beyond belts and filters are not included in the above service offerings. For more information call your Local Liebert Authorized Representative. All other Liebert equipment or service coverage requires quotation.





# Heat Removal Is Just Part Of The Reliability Story

## Liebert Also Offers A Full Range Of Mission-Critical Power Solutions

A steady flow of power, and the means to get it to each piece of equipment in a critical facility, is a key to systems reliability. The proper functioning of these systems depends on the quality of power and the ability to ride through outages of any duration. Only Liebert offers the breadth of power supply products to meet any of these needs.

## Mission-Critical Cooling Solutions From Liebert – The Smart Decision To Make

Liebert is the one source that can supply the mission-critical cooling infrastructure and all the tools you need to keep it operating every minute of every day.

From high-capacity units such as the Deluxe System/3—the standard of the industry — to compact above-ceiling systems like the Mini-Mate2, there is a Liebert system designed to cool and protect your mission-critical computing systems.

### Power Availability

Reliability depends on the continuity of power and the ability of an uninterruptible electrical supply to ride through outages of any duration.

**Liebert offers UPS solutions ranging from 300 VA up to 1000 kVA.**

### Power Protection

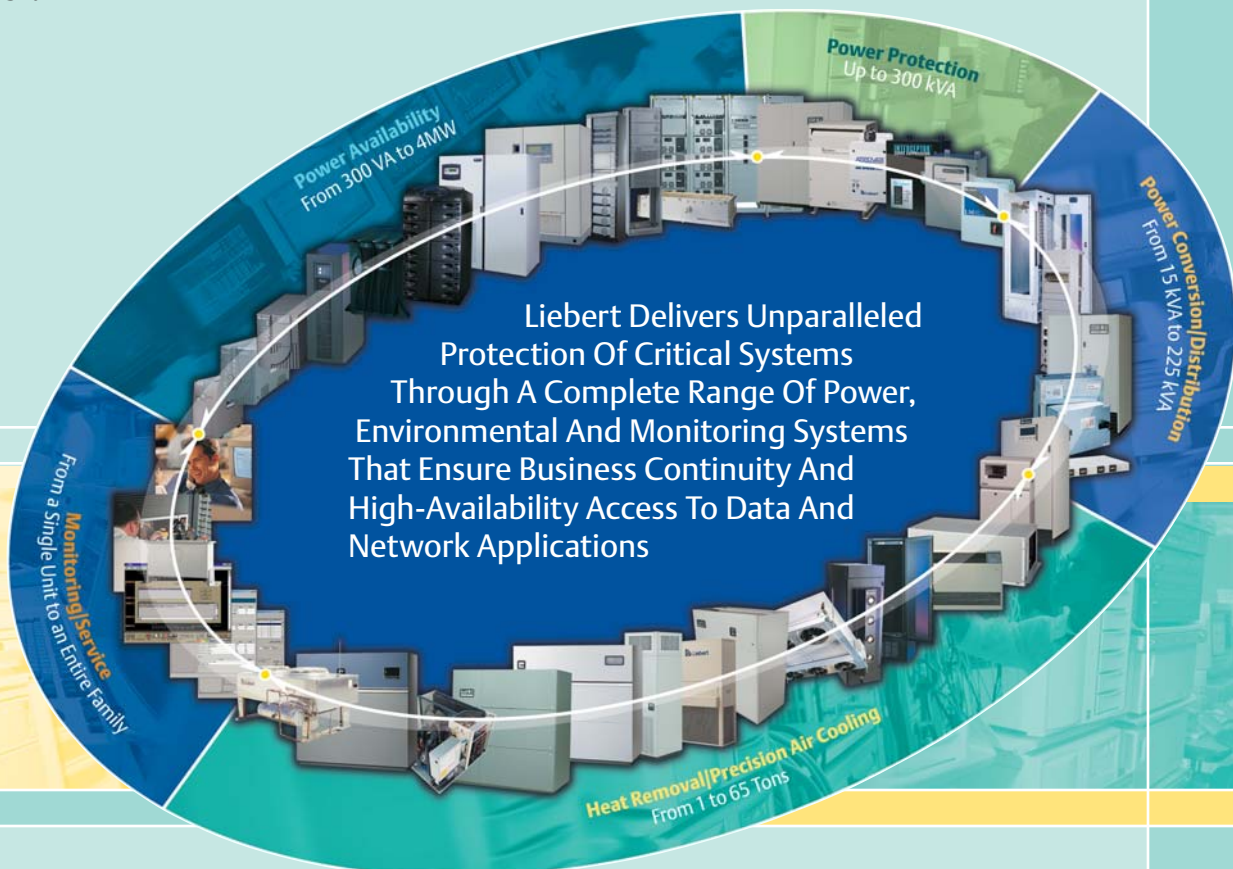
Utility power is often far too “dirty” for sensitive systems. In these situations, surge suppression and power conditioning can deliver the power quality you need.

**Liebert offers surge protection and power conditioning systems up to 300 kVA.**

### Power Conversion And Distribution

Converting and delivering both AC and DC power throughout a large facility is an important step in protecting availability.

**Liebert manufactures power conversion and distribution systems ranging from 15 kVA to 225 kVA.**



# ENSURING THE HIGH AVAILABILITY OF MISSION-CRITICAL DATA AND APPLICATIONS

## Heat Removal

Trust Liebert to deliver power protection and cooling strategies to ensure business continuity through the constant availability of mission-critical data, applications and communications.

Liebert provides a high-availability strategy of applying adaptive technologies across your network. This expertise comes from decades of protecting the most critical systems in the world from downtime, data loss and equipment damage. Liebert knows how to assess your network availability to ensure your enterprise information and applications will always be available, even as networks and technology change.

Liebert delivers unmatched support and service before, during and after installation. Liebert is the only company in the industry that maintains a national network of technical experts to assess customer needs and recommend appropriate solutions. And, Liebert provides comprehensive support through the largest service organization in the industry. Liebert is backed by the development and technology resources as well as the expertise of Emerson Network Power, the global leader in powering business-critical systems.

The full range of Liebert solutions helps you create an information infrastructure that delivers the level of network reliability you need—both now and in the future—to keep your business running.

*Our broad product line gives Liebert the ability to create a "tailored solution" that will meet your protection needs precisely and efficiently — you can always count on us to give you the best answer every time.*



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