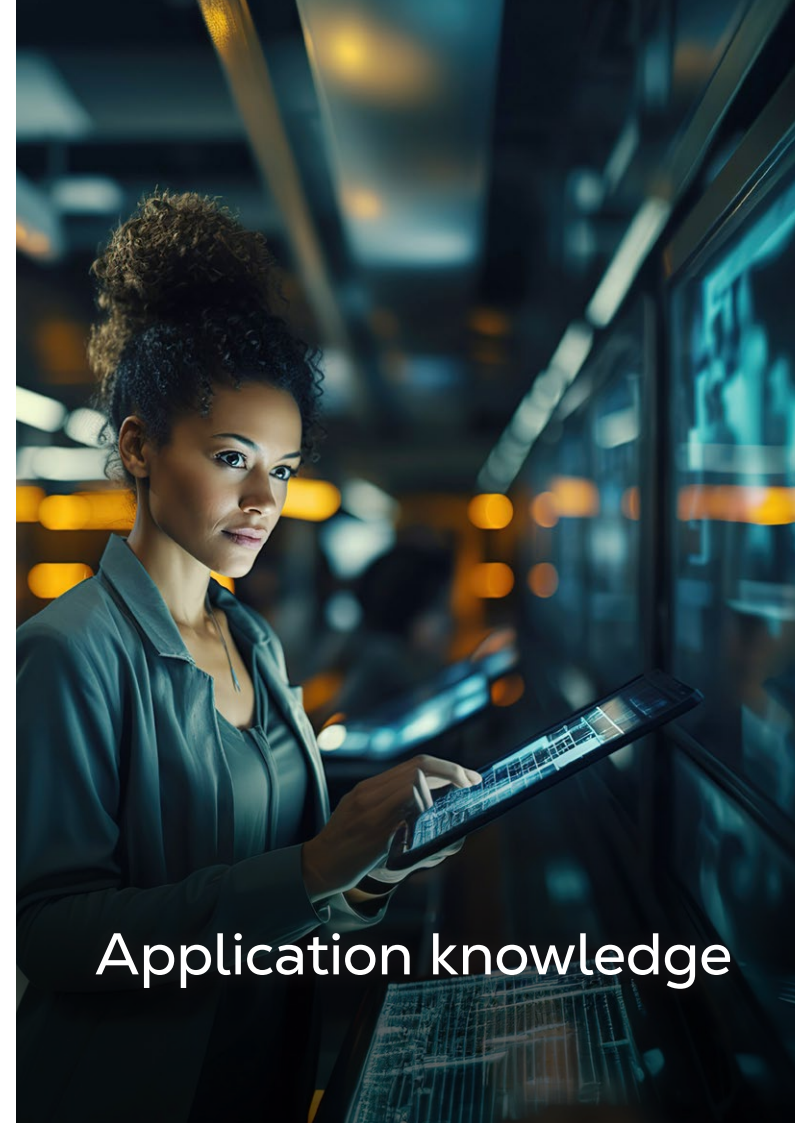




Energy-efficient
and adaptable air and
liquid cooling solutions
for data centers



Application knowledge



Project management

Data center cooling and humidification is constantly evolving

High-performance computing is transforming the data center industry, increasing the need for energy- and water-efficient cooling systems. Adaptability, innovation and operational continuity are essential. Since 1955, Munters has pioneered climate control solutions in mission critical facilities, helping the data center industry manage rising capacities and heat loads.

Our unmatched project management, global reach, extensive R&D, delivery accuracy, and comprehensive support keep you at the forefront of sustainable, advanced data center cooling. Stay prepared to meet future challenges today.

Stay cool – and up and running

Choosing the right data center cooling solution depends on factors like ambient climate, water availability, air quality, temperature and building design. Munters works closely with owners and operators to optimize climate control solutions tailored to each data center's unique requirements. These customized systems maximize uptime, enhance efficiency and lift performance while saving energy and water and reducing costs and carbon footprint.



Energy efficient and adaptable



Broad solutions and services

Balancing reliability, efficiency and cost

Unlock the full potential of your data center with a comprehensive portfolio of hardware, software and services for data center climate control from Munters. Our portfolio includes direct and indirect evaporative cooling, indirect dry and split system cooling, computer room air conditioners (CRACs), and computer room air handlers (CRAHs).¹ Proven, reliable and scalable, these air-cooled, liquid-cooled and hybrid technologies enhance uptime and performance, manage costs and adapt to your evolving business requirements.

For dry or mild climates with clean ambient air

Optimize data center temperature and humidity levels with energy-efficient direct evaporative cooling systems. These use ambient air directly for cooling, offering exceptional energy efficiency. Pre-cooling outdoor air ensures optimal indoor temperatures even in warm climates. Ideal for large data centers, they provide cost-effective primary or secondary cooling, ensuring peak performance, significant energy savings, and a low total cost of ownership.

For locations with ambient pollution and varying outdoor humidity

Achieve unmatched energy savings and efficient heat removal with indirect evaporative cooling systems from Munters. They maintain optimal indoor temperatures without adding moisture, slashing energy usage by up to 80%. Using ambient air with air-to-air heat exchangers ensures stable indoor climates. Leveraging lower ambient wet bulb temperatures during peak cooling season reduces capital investment and operation and maintenance costs, ensuring a low total cost of ownership.

For areas with scarce water resources or cool climates

Keep your data centers cool and free from external air pollution and humidity with dry, indirect cooling systems from Munters. These waterless, energy-efficient systems meet your cooling capacity and sustainability goals without outdoor air or moisture into the server room. This keeps your data center free from rapid temperature or humidity fluctuations and outdoor air pollution.

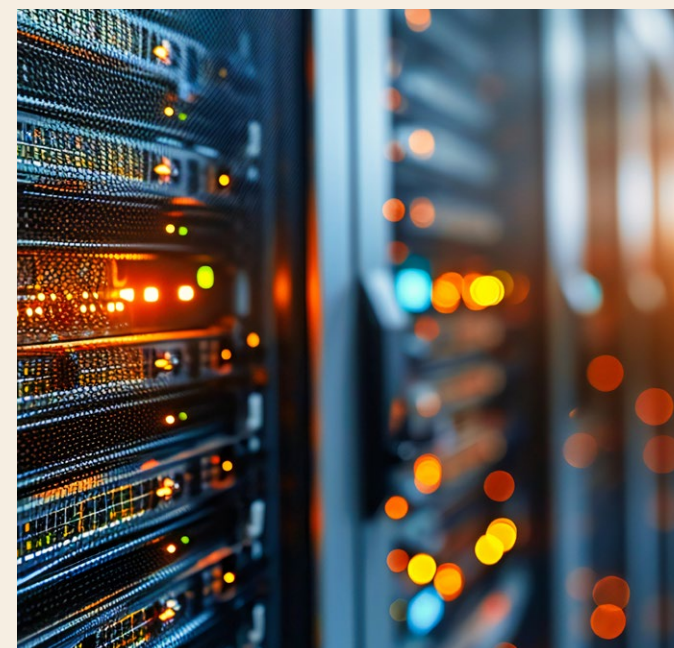
For locations with space constraints, ambient pollution or varying humidity

Boost data center cooling efficiency with chilled water, direct expansion, or patented thermosyphon SyCool split system technology from Munters. These compact, robust systems offer installation flexibility, allowing separate placement of cooling and heat rejection sections, making them ideal for multi-story facilities.

For future adaptability

Munters SyCool system is designed with increased loads in mind. If rack densities increase so as to require liquid cooling, the CRAH unit can be directly replaced by our LCE to provide heat rejection for the liquid cooling system.

¹ In 2022, Munters acquired European data center cooling equipment manufacturer EDPAC. This acquisition leveraged combined resources, expertise, technology and synergies while enhancing research and development opportunities and expanding the company's global reach in Europe and the Middle East.



Beyond cooling

Munters offers data center humidification and ventilation solutions for optimal indoor climate control. We also deliver solutions for heat reuse. With expert design and planning support from Munters, your data center climate solutions are in safe hands.

Munters portfolio

Data center cooling and humidity control

Munters innovative cooling solutions for data centers include complete split and packaged cooling systems, close control units and fan wall units. Cooling evaporative media and Humimax humidifiers complete our offering.

Split cooling systems and modular products

SyCool Split

Harness the power of ambient air with the industry's leading dry indirect economizer. Use the high-efficiency Munters SyCool™ Split cooling system with thermosyphon technology on your next project to efficiently server heat without using water. It received Mission Critical magazine's 2021 Top Tier Product Award for Thermal Management Solutions.

SyCool LCE

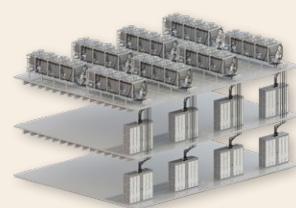
Leverage the power of liquid cooling in your data center with the Munters SyCool Liquid Cooling Evaporator (LCE). Versatile and cost-effective, it works with any liquid-cooled equipment. This completely waterless system can replace a SyCool air-cooling evaporator, upgrading your facility to liquid cooling and futurproofing your cooling strategy.

Modular ChilledWall

Ensure precise temperature control in data center server rooms with Munters Modular ChilledWall (MCW) cooling unit. Compact, scalable and energy-efficient, these units optimize cooling in facilities equipped with chilled water systems.

EDPAC CRAC/CRAH

Control server room temperatures with a Munters EDPAC CRACs and CRAHs. Strategically position these CRACs or CRAHs close to the heat source for effective data center cooling. They save space, conserve energy and optimize cooling efficiency, enhancing system performance and reliability.



Indirect evaporative integrated systems

Oasis

Maximize energy savings and remove heat from your data center without adding moisture to the air with the Munters Oasis™ indirect evaporative integrated systems. These compact, fully packaged systems use up to 80% less energy than conventional cooling systems to maintain optimal temperatures without adding moisture to the air.

Featuring evaporative polymer exchanger (EPX) technology, they efficiently reject heat even in areas with poor water quality. Operating dry eliminates freeze concerns and provides a balanced approach to water and energy use. Choose from Oasis Standard, IEC and DCIE systems.

Indirect dry integrated systems

Packaged plate indirect cooler

Keep your data centers cool and free from ambient air pollution and humidity with Munters Packaged Plate indirect cooler. This indirect dry integrated system provides energy-efficient operation in cooler climates or areas where water is not readily available, helping you achieve your cooling and sustainability goals. Rely on this plate aluminum heat exchanger with waterless technology for sensible-only heat transfer.

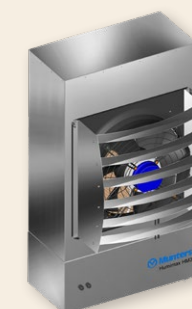
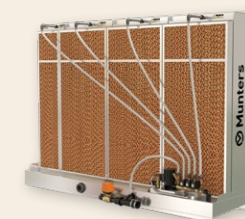
Direct evaporative coolers and humidifiers with evaporative media

FA6

Enhance data center climate control with the Munters FA6™ evaporative humidifier and cooler. Tested and certified, it offers either single-coated, flame-retardant media or fire-rated, ceramic-coated evaporative media to prevent the spread of legionella. Standard sizes seamlessly integrate into data center air-handling units for energy-efficient temperature and humidity control. Custom sizes are available upon request.

Humimax HM3

Automatically control relative humidity indoors wherever moisture regulation is critical with Munters Humimax HM3 stand-alone humidifier units. Equipped with intelligent controllers, these direct evaporative humidifiers deliver thermal efficiency, humidity stability and energy savings.



Controlling temperature and humidity

Properly controlling the server room environment is a business imperative. Effectively manage the heat load in your data center in real time with Munters control systems. Balance efficiency and uptime effortlessly by optimizing temperature and humidity levels to keep your IT equipment running smoothly.

Munters stand-alone control units connect individual cooling and humidification units to third-party building management systems. To manage data center cooling capacity and efficiency, rely on our virtual management system to monitor and control all Munters cooling components and systems within

a specified area or throughout your entire data center with a centralized control system. With Munters data hall controller, you can manage your entire data hall using a single dashboard for a comprehensive overview of all Munters cooling components and systems.

- Performance metrics and trends overview
- Maximized uptime and availability
- Optimized cooling efficiency
- Reduced service costs
- Extended data center lifespan



Secure more uptime with Munters Services

Get the expertise and support you need throughout the lifecycle of your equipment. Our experienced technicians optimize your data center assets, optimizing temperature, humidity and uptime throughout your equipment's lifecycle. With our global reach and local presence, the Munters Service team helps protect your investment, equipment, and, above all, your peace of mind – wherever you operate.

Service Agreements

Get industry-leading lifecycle care tailored to your needs, optimizing performance.

Installation, startup and commissioning

Ensure optimal performance from day one with our installation, startup, and commissioning services. Leveraging Munters' expertise and support helps ensure long-lasting, reliable equipment performance.

Maintenance and repairs

Finetuning your routine, proactive or preventive maintenance schedules can boost performance and prolong the lifespan of your equipment.

Retrofit and upgrade

Revitalize and extend the lifespan of your equipment, while reducing energy consumption and maximizing uptime.

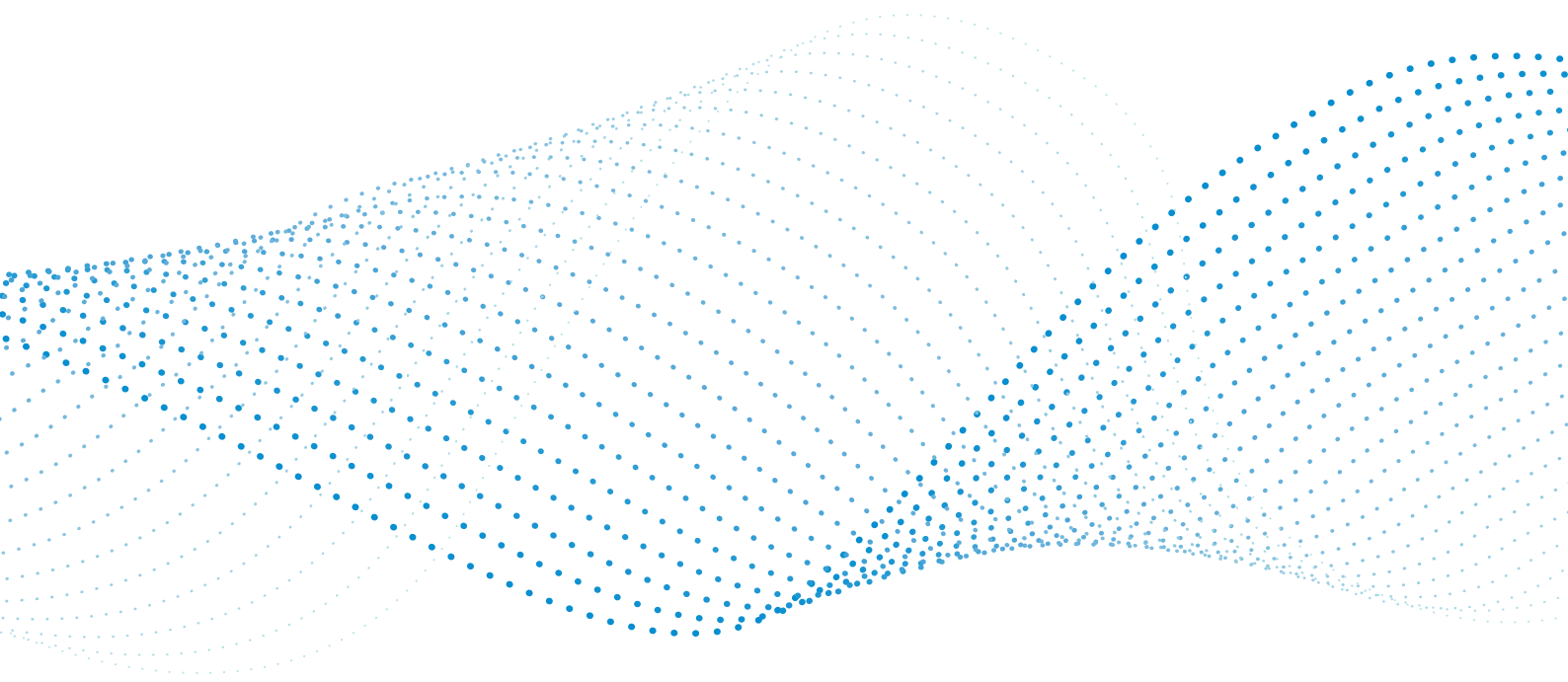


Operational excellence

Munters optimizes operations by understanding customer needs and implementing lean business practices, which reduce waste, maximize customer value, and enhance overall performance. Our commitment to excellence is evident at our facilities in Selma, Texas; Daleville, Virginia; and Cork, Ireland. High employee retention keeps our operations strong, reliable, and consistent.

We constantly assess operations to improve resource efficiency and respond to customer needs. Our new LEED-certified factory in Cork expands our capacity while reducing our carbon footprint, meeting the growing demand for increased output and sustainable cooling solutions. We also prioritize reduced lead times and ensure 100% delivery accuracy.





Munters is a global leader in climate control solutions for mission-critical processes. Through innovative technologies, we create optimal climates for demanding industrial and agricultural applications where controlling moisture, temperature and air quality is essential. Munters provides cutting-edge industrial climate control systems from battery and pharmaceutical manufacturing to data center cooling and food production. Our efficient, innovative products and solutions secure critical operations, ensure production quality and conserve energy and water.