

Chillers

NX3-FC-G07

Air source free-cooling chiller with
scroll compressors from 150 to 300 kW



NX3-FC-G07

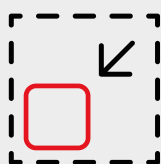
Efficient, Quiet, Versatile. Born to perform.

NX3-FC-G07 is an air source free-cooling chiller designed to deliver high efficiency, reliability and continuous performance in applied hydronic systems. Each size features two independent refrigerant circuits and four fixed speed scroll compressors arranged in tandem, supported by all aluminum microchannel coils, EC fans and a plate heat exchanger evaporator.



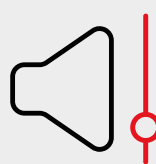
NX3-FC-G07 integrates a set of advanced technologies designed to maximize cooling density, efficiency and ease of maintenance, starting from its distinctive full microchannel coil package. The unit adopts a three layer configuration that combines the condenser, the RED cooler and the free-cooling coils in a compact all aluminum layout.

The result is a configuration that shortens the payback period and raises seasonal energy efficiency to industry leading levels.



Top Design

Thanks to its compact design, the unit can be supplied as a fully packaged solution with factory mounted pumps and a buffer tank. This integrated configuration streamlines installation, minimizes on site operations and ensures a perfectly coordinated hydraulic layout.



Low Noise

The unit stands out for its remarkably low sound power levels. The standard configuration is already among the quietest in its category and the dedicated super low noise version further reduces noise emissions, making it ideal for acoustically sensitive installations and delivering sound power levels down to 77 dB(A).



The quickest ROI

The range delivers best in class efficiencies in both mechanical and free-cooling operation. These performance levels translate into the quickest return on investment, directly verifiable through dedicated energy analysis tools.



Fully configurable

A broad selection of accessories and configuration options allows the range to adapt to virtually any installation scenario. From fan diffusers to control enhancements and extended operating map, the unit can be tailored to the specific requirements of each project.

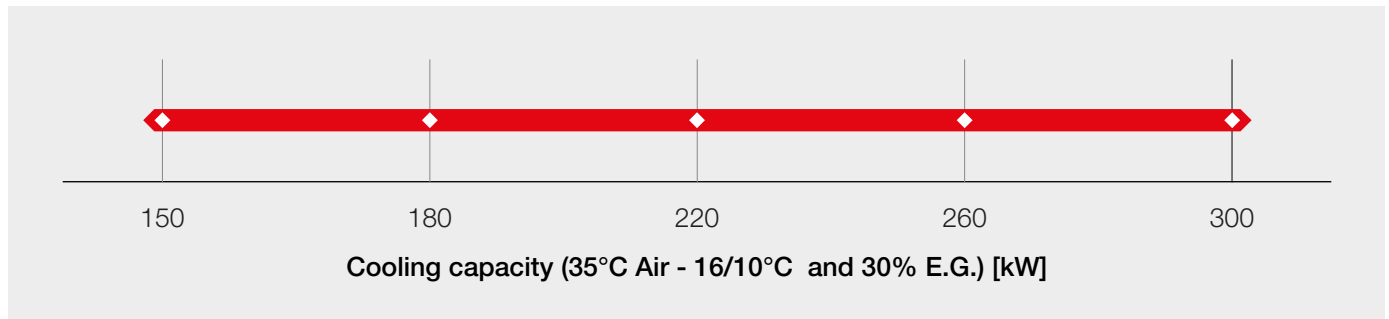
The Range



Conceived for outdoor installation, the range is available in five sizes, organized into four versions:

- 1 standard
- 2 no glycol
- 3 super low noise
- 4 super low noise no glycol

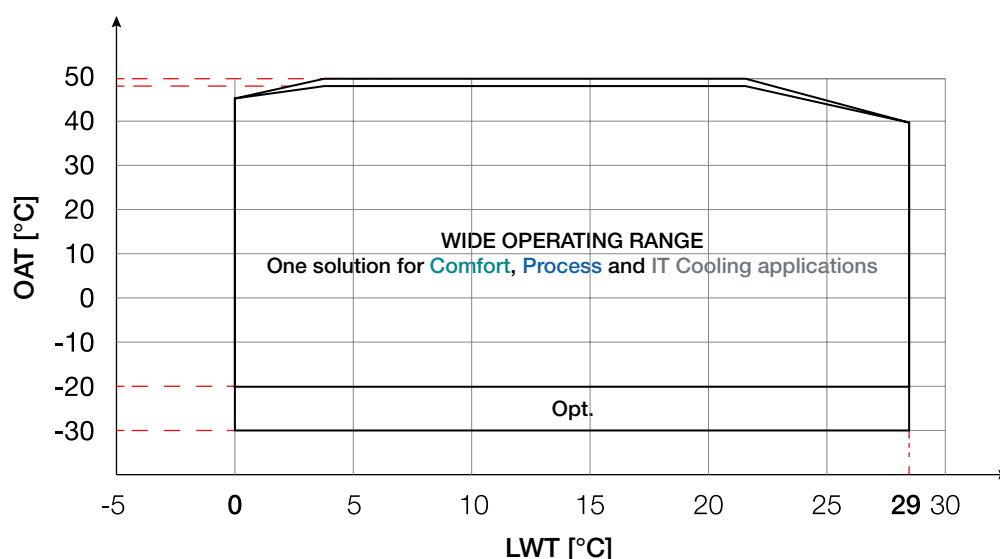
NX3-FC-G07 supports every applications, offering a flexible and reliable solution for different system requirements.



To adapt to different system requirements, NX3-FC-G07 is available with two free-cooling circuit concepts. The standard version uses an open loop configuration with free-cooling coils and two two-way valves, while the No Glycol NG version adopts a closed loop system integrating coils, a pump and a dedicated plate heat exchanger.

SEER up to	5,51
SEPR up to	8,74
EER at 16°/10°35°C and 30% EG. up to	3,59

The entire range is optimized for hydronic applications operating with water temperatures of 16 °C inlet and 10 °C outlet.



Up to 50°C at partial load/ Up to 49°C at full load



Process Applications
Industrial processes and manufacturing



Comfort Applications
Commercial buildings and residential



IT Cooling Applications
Data Centers and mission-critical systems

The new NX3-FC-G07 range reaches the highest Total Free-cooling Temperature available on the market, ensuring faster return on investment and delivering top class efficiency throughout the year. It can produce leaving water temperatures up to 29°C, making it fully aligned with the cooling needs of modern data centers and their progressively higher operating water temperatures.

The unit ensures reliable full-load operation across a wide range of ambient conditions, from 49°C (50°C at partial load) down to -20°C as standard. For applications requiring operation in more extreme climates, a dedicated low-temperature option extends the operating range down to -30°C.

R32
Refrigerant

NX3-FC-G07 adopts the low GWP refrigerant R32. This new generation refrigerant allows to significantly reduce the environmental impact while delivering high efficiency and full compliance with upcoming regulatory requirements. With R32, the series is ready for the future and aligned with the industry's transition toward more sustainable cooling solutions.



Reduced Environmental Impact

- 0 ODP - Ozone Depletion Potential
- One-third OWP that R410A
- F-Gas phasedown compliant



Performance & Envelope

- Ideal for the next generation of equipment
- Requires less refrigerant volume per kW
- High refrigeration and thermal conductivity
- Low pressure drops
- Affordable and readily available



Reliability

- Easy to handle, reuse, and recycle
- Low toxicity, low flammability
- A single component refrigerant systems

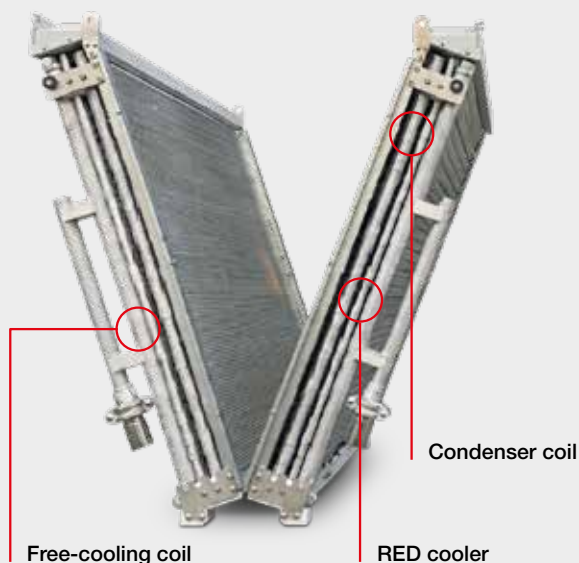
Unbeatable Free-Cooling



Two distinct free-cooling coils configurations

The range offers two different free-cooling coil configurations. The first uses all aluminium microchannel coils, enabling a full MCHX layout that incorporates the patented RED cooler technology, a unique market solution that enhances efficiency and contributes to significant energy savings. The second configuration relies on traditional copper aluminum coils, preferred in specific installation scenarios.

■ MCHX FC coil configuration



■ Cu/Al FC coil configuration



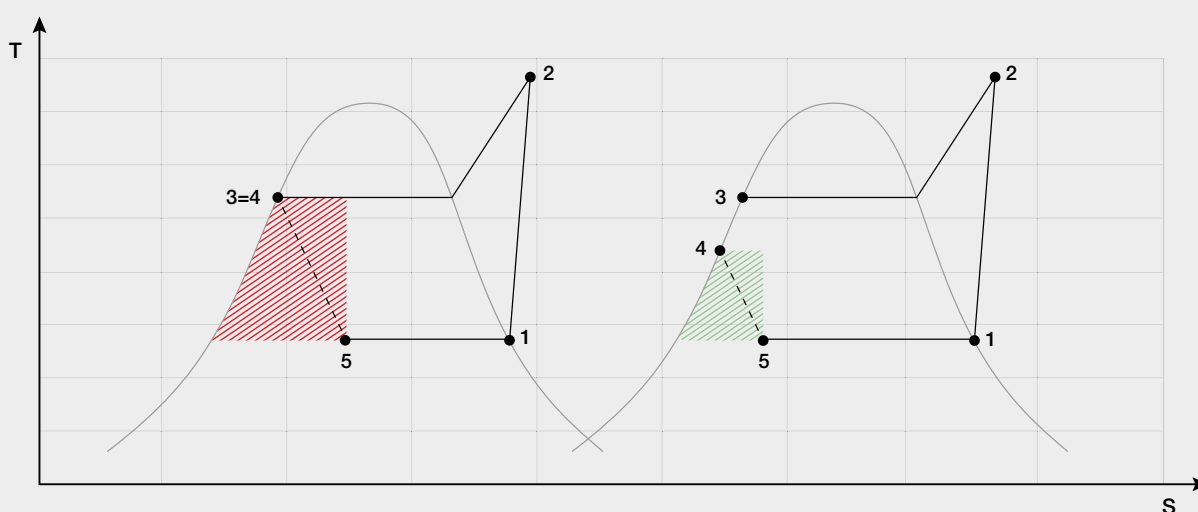
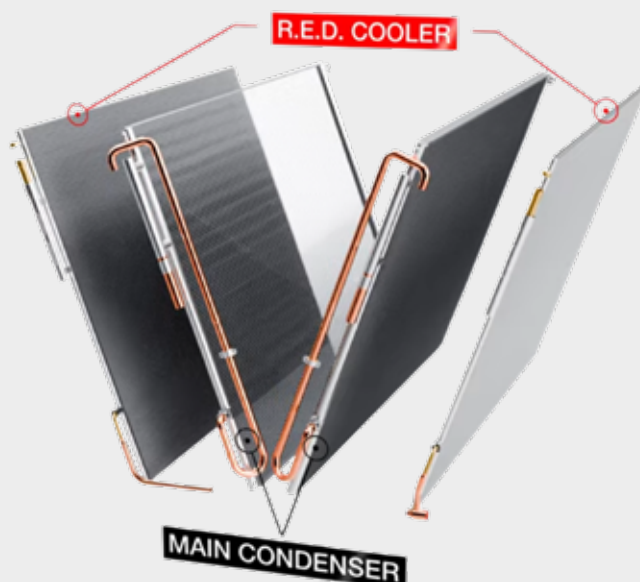
The unit adopts a three layer configuration that combines the condenser, the RED cooler and the free-cooling coils in a compact all aluminum layout. This solution, enabled by the patented RED cooler technology, increases the available cooling surface, enhances free-cooling performance and delivers a more cost effective architecture compared to traditional coil arrangements.

The result is a configuration that shortens the payback period and raises seasonal energy efficiency to industry leading levels.

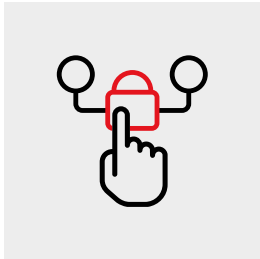
R.E.D. Cooler

Reduced Exergy Depletion

1. Condensing coil inlet
 2. Condensing coil outlet
 3. RED Cooler subcooling coil inlet
 4. RED Cooler subcooling coil outlet
- Energy loss with standard condenser
- Energy loss with RED cooler



Controls



Embedded functions, always available, no additional price!

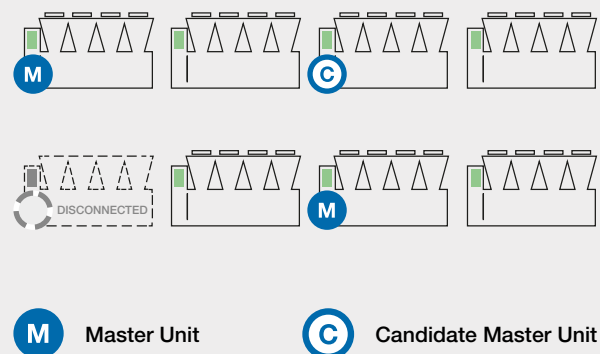
■ W3000+

NX3-FC-G07 is managed by the W3000+ controller, a platform designed to offer precise regulation, advanced protection logics and complete visibility over unit operation. The system comes with the large keyboard as standard, ensuring clear navigation and an intuitive user experience in every working condition.

■ Smart LAN Functions

For multi unit installations, LAN functions are enabled through the Multi Manager option, an embedded high end group controller capable of maintaining coordinated operation even in the unlikely event of multiple unit failures, through dedicated dynamic redundancy function allowing also to define multiple priority levels. This solution ensures system continuity and is ideal for plants where reliability is a critical requirement.

The entire cooling equipment works as one, with one master chiller that coordinates and optimizes the operation of the group.





HPC

For data center environments, the HPC software acts as a dedicated plant optimizer, enhancing the overall efficiency of the cooling system by managing the interaction between chillers and chilled water indoor units. By dynamically adjusting pump consumption, water setpoints and free-cooling capability, HPC maximizes energy performance across all operating conditions.



Group Manager C1 & Plant Manager C1

Comfort and process applications can benefit from the new **Group Manager C1**, a centralized control solution developed to improve coordination among multiple units and ensure stable, optimized operation at plant level.

Plant Manager C1 is MEHITS' plug&play system for managing groups of units with external pumps and valves. It offers advanced optimization including the patented Smart Load Management, Energy Monitoring for measurable savings, and Group Fast Restart for fast recovery in IT Cooling applications.

■ ClimaPRO+

For full plant optimization and supervision across all segments, ClimaPRO+ offers the most advanced approach. It coordinates the entire HVAC ecosystem, ensuring maximum efficiency, proactive diagnostics and continuous system optimization throughout the lifecycle of the installation.

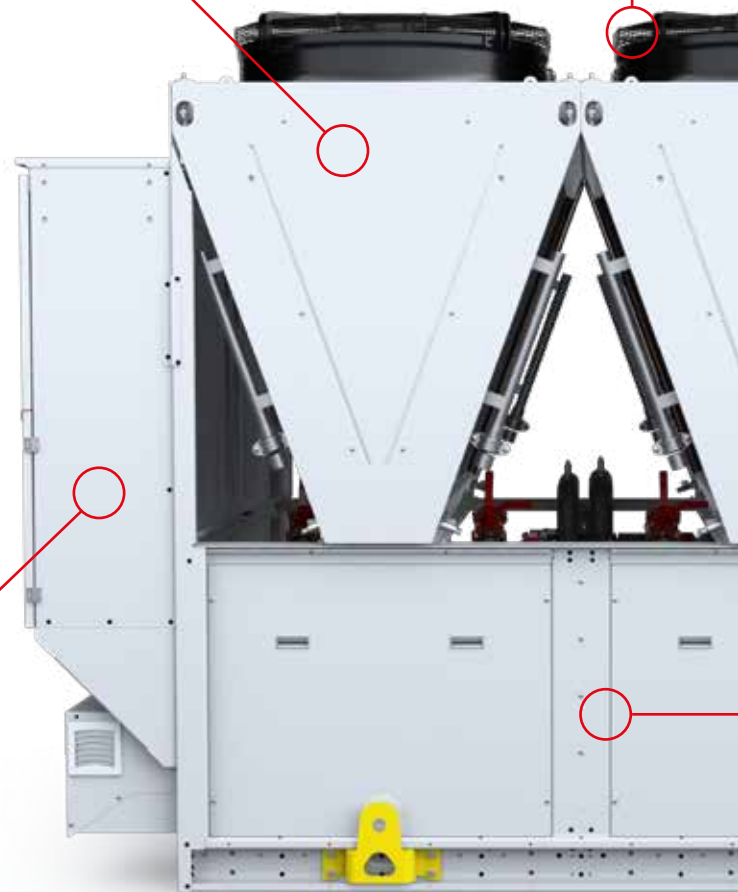
Technological Choices

V block

The V block coil structure has been specifically engineered to increase cooling density while ensuring an exceptional level of serviceability. One of the external shields can be completely removed, allowing quick and unobstructed access inside the V block for inspection, cleaning and maintenance activities. This design philosophy reinforces the service friendly nature of the unit and reduces downtime throughout the product lifecycle.

Control platform

The proprietary W3000+ control platform enables advanced unit management, delivering stable performance even under varying operating conditions.

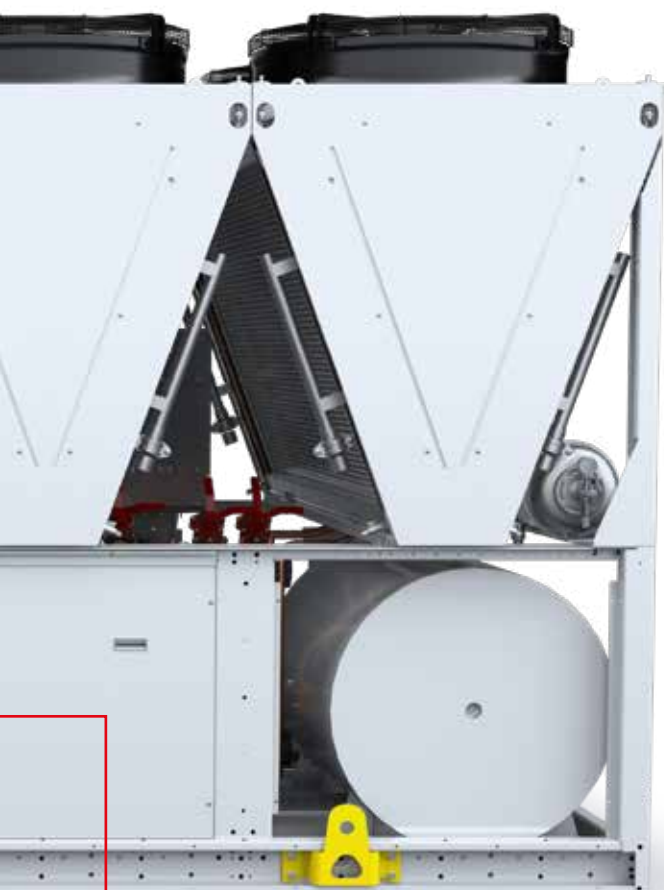


Options

NX3-FC-G07 can be enhanced with a set of accessories designed to boost performance, improve resilience in mission critical environments and adapt the unit to a wide range of applications.

Fans

High efficiency 910 mm EC fans further elevate performance by extracting the maximum free-cooling capacity from each module. Their precise and responsive control ensures optimal airflow management in every operating condition, contributing both to efficiency and to the acoustic comfort that characterizes the entire range.



Compressors

Four hermetic scroll compressors on two independent refrigerant circuits deliver high reliability and excellent part-load efficiency, enhanced by Intermediate Discharge Valve (IDV) technology.

Microchannel Free-Cooling coils

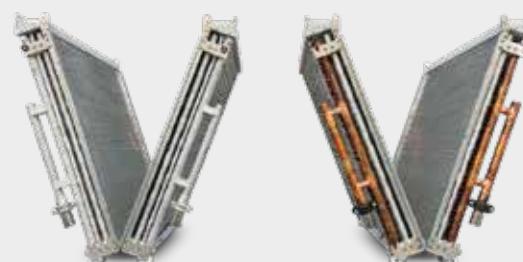
Microchannel free-cooling coils represent one of the most promising evolutions in applied hydronic systems. While copper aluminum coils still dominate the market, microchannel technology is rapidly gaining momentum thanks to the tangible benefits it brings in terms of efficiency, sustainability and overall system performance.

Microchannel coils are lighter, more compact and more cost effective than traditional copper aluminum solutions. Their optimized geometry enhances heat transfer, allowing the unit to deliver higher free-cooling efficiency and improved seasonal performance, especially in applications where energy consumption and operating costs are key priorities.

This shift reflects a broader industry movement towards technologies that improve long term efficiency while reducing both environmental impact and lifecycle costs.

■ MCHX FC coil configuration

■ Cu/Al FC coil configuration



Efficiency Engineered for Process Cooling

In industrial applications, NX3-FC-G07 units provide an efficient and sustainable solution for maintaining precise chilled water temperatures while significantly reducing energy consumption. They are ideally suited for industrial processes where continuous operation, high reliability, and optimized energy efficiency are critical requirements.

The NX3-FC-G07-NG (No Glycol) model features an intermediate heat exchanger that provides complete hydraulic separation between the chiller glycol circuit and the process water circuit. This configuration makes it particularly suitable for applications where glycol cannot be used, is not desired, or must be kept entirely separate from the building's hydraulic network.

Ideal applications include commercial and healthcare buildings, food and beverage processing facilities, and industrial processes that require completely glycol-free chilled water systems.

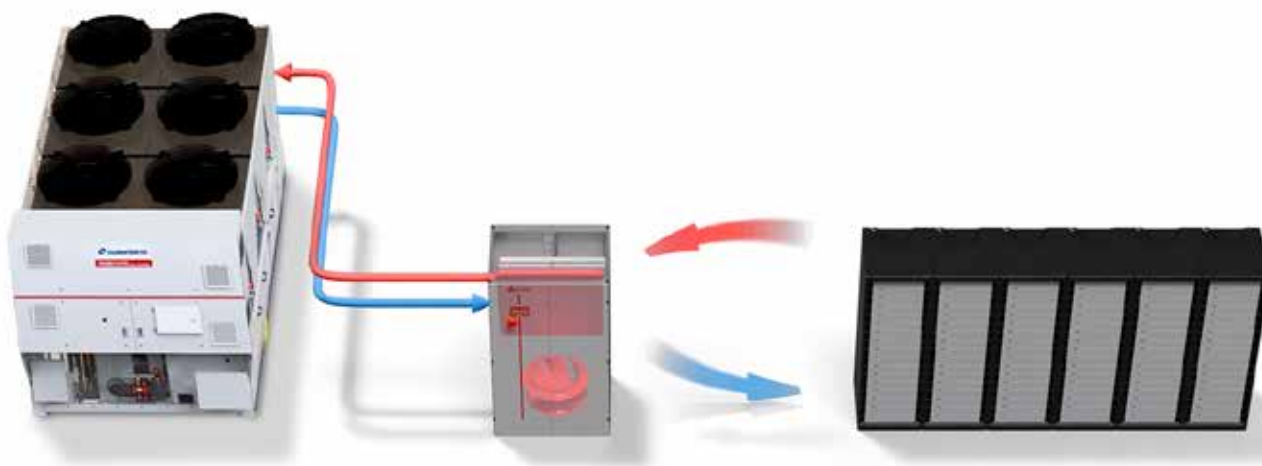


The System for your Data Center

NX3-FC-G07 is designed to operate as a key component within a complete hydronic system for IT cooling.

It seamlessly complements our free-cooling portfolio and is ideally combined with the chilled water indoor units to create an efficient and fully coordinated hydronic architecture.

When paired with the HPC optimizer, the system unlocks superior energy performance and optimized operation, making it particularly suitable for small and medium sized data centers as well as refurbishment projects where efficiency, reliability and ease of integration are essential.

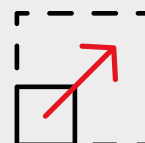


HPC

Hydronic Plant Connect



**Easy control
from your device**



**Scalable
system**

Service Benefits

NX3-FC-G07 has been designed with a strong focus on serviceability, ensuring quick, safe and efficient maintenance operations throughout the entire lifecycle of the unit.

The V block geometry allows technicians to easily access the condenser section from the inside, significantly simplifying inspection and cleaning of the coils. This layout reduces downtime and supports optimal long term performance by making routine maintenance faster and more effective.

Additional attention has been given to the electrical architecture.

The electrical panel is split into separate power and control sections, improving clarity, safety and ease of troubleshooting. Its upper part extends outward to offer protection during on site interventions, acting as a small roof that shields technicians from rain or direct sunlight on hot days. This practical feature enhances comfort and safety during service activities in challenging environmental conditions.



Many Options for Many Solutions



Fast Restart function

Allows the unit to recover one hundred percent of its cooling capacity in less than one minute after power is restored. This feature is available in two configurations. The first operates without UPS, while the second uses an ultra-capacitor that maintains the controller active for at least eight minutes. This makes the option particularly suitable for data centers, industrial processes and all mission critical installations where continuity of service is essential.



Energy monitoring package

Based on dedicated sensors capable of measuring both the cooling capacity delivered and the electrical power absorbed. This solution provides accurate, real time insights into unit performance and supports energy management strategies in complex hydronic systems.



Hydronic kits

Are available to meet different installation needs. Configurations include single or dual pumps, low or high head options and both fixed speed and variable speed version. They can also be combined with a factory mounted buffer tank to ensure seamless hydraulic integration.



Extreme conditions

For cold climate applications, the unit can operate down to minus 20°C as standard, with an optional configuration that extends the operating range down to minus 30 °C. Coil protection is also available for harsh or corrosive environments, with e-coating treatments for microchannel coils and pre-painted fins or Blygold Polual treatments for traditional copper aluminum coils.



Fan diffusers

For sites where acoustic comfort is a priority, fan diffusers are available as accessories to further reduce noise emissions without compromising unit performance.

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