

Room Cooling

## **Chilled water Fanwall unit, ideal for Colocation and Hyperscale Data Centers.**

from 340 to 400 kW

# MEWALL



# MEWALL

PEAK PERFORMANCE  
LOW INVESTMENT

**Chilled water Fanwall units, ideal for large data centers such as Colocation & Hyperscale DCs.**

Equipped with a chilled water coil, centrifugal EC fans, micro-pleated filters, and designed for installation in technical corridors, the new MEWALL unit boasts unique energy efficiencies on the market.



## Efficiency and Savings without Compromise

At the core of the MEWALL unit is undoubtedly its efficiency, which ensures significant energy savings for the customer while providing effective and reliable cooling for the data center, with a lower initial investment compared to previous range.

Mitsubishi Electric, a leader in the design and development of advanced technological solutions, has paid attention to innovation, closely studying the filter section and filing an international patent:

**New filter location that enables intelligent use of available surface area without compromising unit dimensions.**

# THE WINNING CHOICE FOR A FUTURE-DESIGNED DATA CENTER



## Hybrid cooling solutions

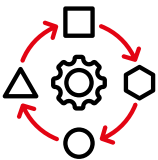
To reduce its environmental impact, energy consumption, and follow the increase of rack power density, large data centers are adopting **new hybrid cooling solutions** that combine traditional air cooling with new liquid cooling technologies. MEWALL has been designed to meet the needs of new data centers and can be effectively integrated into hybrid systems.



## Our Goal: Your savings

Through careful and targeted design, all components have been optimized to improve the performance of the new unit. Thanks to the use of an optimized electrical panel, a smaller base frame, and the new filtering solution (patent pending), it has been possible to drastically reduce air-side pressure losses and the consequent electrical consumption.

**This allows for a considerable economic saving (over 50% compared to the previous range) and improved performance, leading to unbeatable OPEX and CAPEX.**



## A Versatile Unit

To best meet the needs of each individual data center, the new MEWALL units can be customized with a wide range of accessories to maximize system performance.

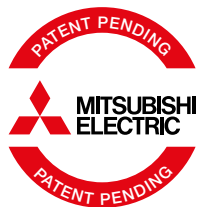
# Technological Choices

## High efficiency filters

Enhanced frontal airflow surface area and additional tailor-made Micro-pleated filter ePM10 50% to drastically reduce the power absorption.

## Side Filters

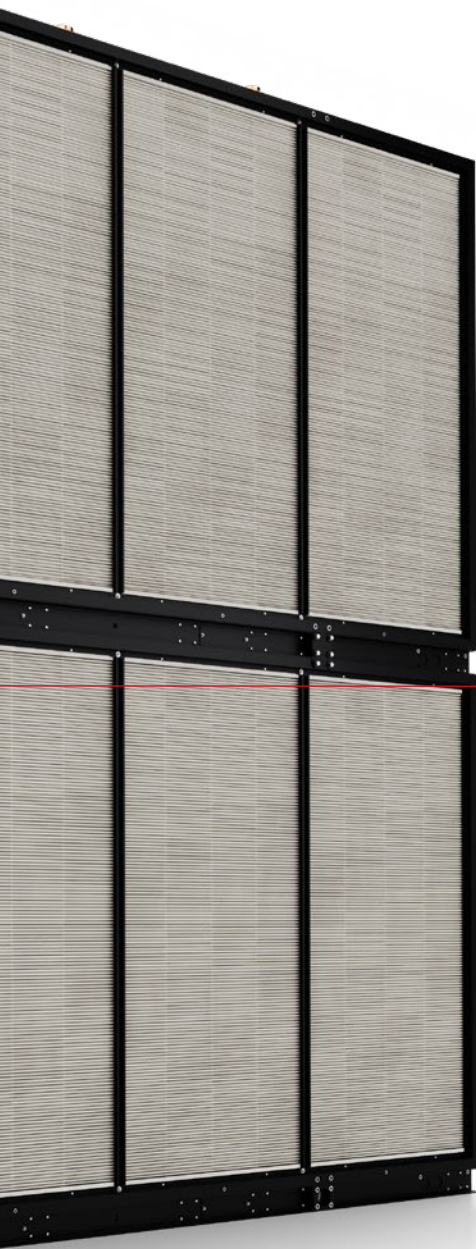
New «side filter» option to further enlarge the filtering surface with additional energy savings benefit.



## Chilled water coil

Tube & fins coil optimize for high delta T water side, from 10 to 12 K. To facilitate the air passage and increase the cooling capacity some improvements were taken into account: re-design of the coil support to create more space for the height of the coil, new collector to save lateral space for the coil.





## Centrifugal EC fans



Latest generation of EC fans that guarantee high efficiency and airflow up to 140.000 m<sup>3</sup>/h.

In addition, a honeycomb grid reduces the turbulence and instability of the intake air flow, allowing fans to exploit their full potential.

## Touch display

The 7" touch screen display (opt.) with easy-to-read color graphics ensures the immediate visualization of the units' status and provides simple alarms and event management.

The touch display makes it easy to interact with the unit thanks to the latest generation Human-machine interface.

### Multilanguage

### Intuitive icons

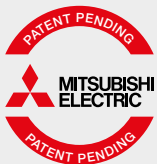
### Real-time display

### Quick menu access



# Many options for many solutions

In order to effectively address the specific requirements of each individual data center, the new MEWALL units offer an extensive range of customizable accessories. These accessories are carefully designed to provide tailored solutions that optimize and elevate the overall performance of the system, ensuring maximum efficiency and reliability.



## Side filters

Highly innovative solution, currently patent pending, that maximizes the unit's efficiency.



## PICV Valves (Pressure Independent Control Valve):

Valves that precisely control the flow independently of the pressure, allowing for finer adjustments and significant energy savings. Furthermore, thanks to integrated sensors and Modbus communication, it is possible to display various real-time valve parameters.



## Harmonic filters

Electrical device that minimizes THDi (Total Harmonic Distortion) to protect electrical equipment in the line and extend the life of the components.

## **ATS (Automatic Transfer Switch):**

Power transfer switch between line 1 and line 2 to ensure service continuity.



## **Cooling capacity calculation:**

By adding a PICV valve and a temperature sensor, the instantaneous cooling capacity measured can be directly displayed on the controller, benefiting the system user.

## **Type and orientation of hydraulic connections:**

To meet the requirements of each system, the type of connections for each unit can be specified: standard grooves or flanged connections are available as an option. Flexibility is ensured by the various orientations available for the connections: top as a standard solution, or right or left side as options.

## **In addition to the LAN functions available in the Evolution+ controller software, the MEWALL range boasts new functions such as:**

- New fast restart for an even quicker unit restart after a voltage drop.
- Fan control via Modbus, with the ability to display multiple operating parameters for each component.
- New internal logic that ensures unit operation even in the event of multiple fan malfunctions.

# Mitsubishi Electric

## Data Center Solutions

Your one-stop solutions for critical power and cooling.

### Critical cooling solutions

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#### Chiller & Air conditioner

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Our air-cooled and water-cooled chillers are available with scroll, screw, or oil-free centrifugal compressors, covering capacities from 15kW to over 4MW. Together with direct expansion and chilled water air conditioner we are able to fulfill all the mission critical requirements.

#### Liquid cooling

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In the era of AI, the data center power density is reaching levels never touched before.

Air-based cooling alone cannot meet the demand. Our solutions for liquid cooling perfectly fit the new hybrid cooling concept, bringing efficiency, higher cooling density and seamless monitoring and control. As the demand for liquid cooling increases, efficient water distribution becomes essential. We are set to launch our Cooling Distribution Unit (CDU), featuring advanced controls that enable precise regulation of cooling water temperature, preventing overheating and ensuring optimal performance of IT equipment.

# Critical power solutions

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Critical power: Ensure business continuity with Mitsubishi Electric's critical power solutions.



In the rapidly evolving digital landscape, uninterrupted power supply is critical for maintaining data center operations. We offer mission-critical containerised, modular and skidded Critical Power Stream PODS, or Power Train Units, medium voltage solutions, low voltage solutions, UPS (Uninterrupted Power Supply), and back-up generators of the highest quality.

## DCIM solutions

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### ICONICS

Critical management:  
Comprehensive monitoring for data center performance optimization



### Enhanced visualisation tools

Our DCIM solution includes advanced visualization capabilities, providing clear, real-time graphical representations of data center operations, enabling operators to quickly identify issues, monitor performance, and optimize resource utilization with greater precision.

### Proactive maintenance planning

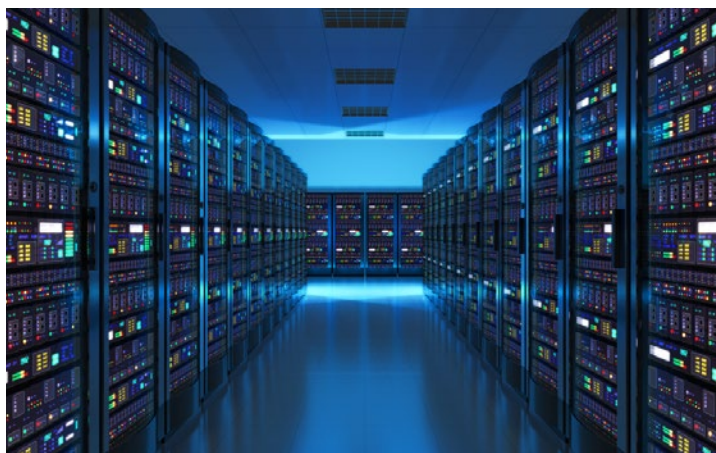
Leverages AI and machine learning to enable predictive maintenance by analysing patterns and trends within the data center, allowing for the anticipation of potential failure, reducing downtime, extending equipment life, and lowering overall maintenance costs.



## Interxion Data Center

Copenhagen - Denmark

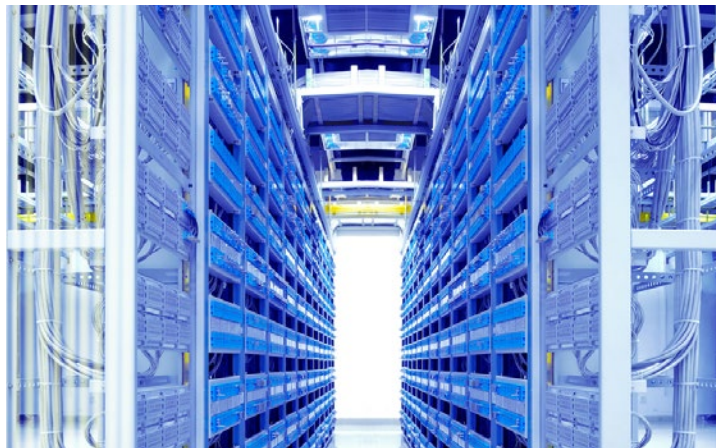
**Cooling capacity:** 3830 kW  
**Installed Units:** 5 x oil-free centrifugal free cooling chillers.



## OS-IX Data Center

Oslo - Norway

**Cooling capacity:** 5550 kW  
**Installed Units:** 8 x oil-free centrifugal free cooling chillers 41 x indoor chilled water unit + aisle containment.



## Data Center Group

Munich - Germany

**Cooling capacity:** 1800 kW  
**Installed Units:** 8 x oil-free centrifugal free cooling chillers 16 x indoor chilled water unit.



size	Total Cooling Capacity*	Air Flow Ratio	Power absorption	Power absorption**
	[kW]	[m³/h]	[kW]	[kW]
402	340	90.000	9.2	8.3
462	380	100.000	10.5	9.7

\*RAT 37°C/25 R.H., Water 20/32°C

\*\*With Patent pending solution

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## **MITSUBISHI ELECTRIC HYDRONICS & IT COOLING SYSTEMS S.p.A.**

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