

**mitsubishi electric**  
**HYDRONICS & IT COOLING SYSTEMS S.p.A.**

ROOM COOLING

# x-AV3

**DIRECT EXPANSION AIR  
CONDITIONERS FOR IT COOLING  
FROM 30 TO 140 kW**



[melcohit.com](http://melcohit.com)

 **CLIMVENETA®**

# x-AV3

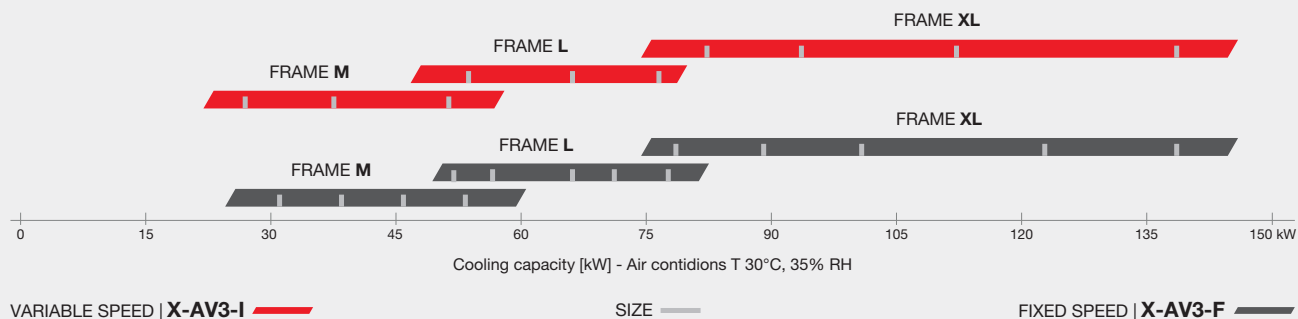
The perfect choice for your data center

**DIRECT EXPANSION AIR CONDITIONER FOR IT ENVIRONMENTS FROM 30 TO 140 kW**



## RANGE COMPOSITION

3 compact modules which have 10 new sizes with inverter compressor and 14 sizes with on/off compressor.



**FRAME M**

from 25 to 55 kW



**FRAME L**

from 55 to 80 kW



**FRAME XL**

from 80 to 140 kW

## THE BEST IN EVERY ASPECT



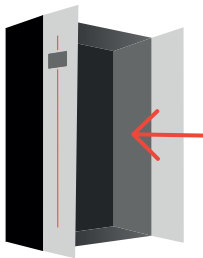
### Full inverter technology

- 1 Energy savings at partial loads
- 2 Precise and reliable capacity regulation in any condition
- 3 Lasting investment. The capacity increase accompanies the growth of your data center.



### Unmatched performance

x-AV3 brings efficiency to another level. This performance coupling with excellent compactness creates a combination that makes it the most competitive solution on the market.



### Full frontal accessibility

Service-oriented design means each component easily accessible for routine and extraordinary maintenance.

# APPLICATION

Complete package solution ideal for  
Enterprise Data centers

**This product is the result of the highest quality and reliability standards from more than 50 years in the IT Cooling field.  
Complete solution for:**

**1 ENTERPRISE DC**

**3 UPS ROOMS**

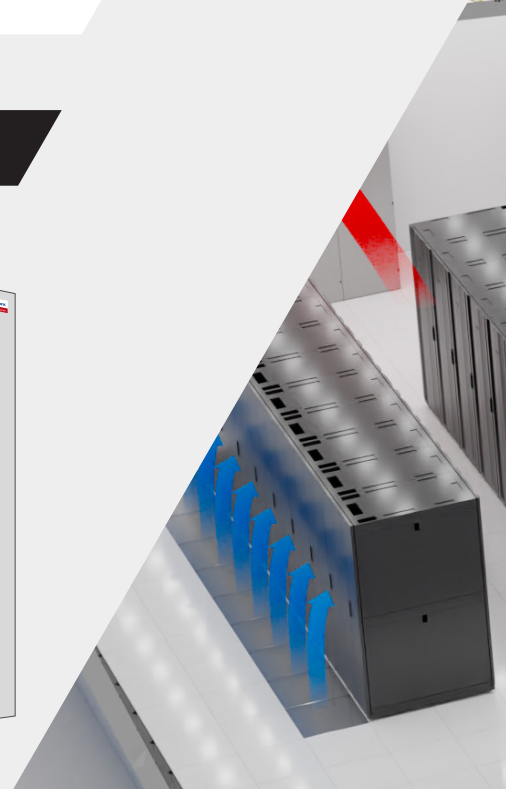
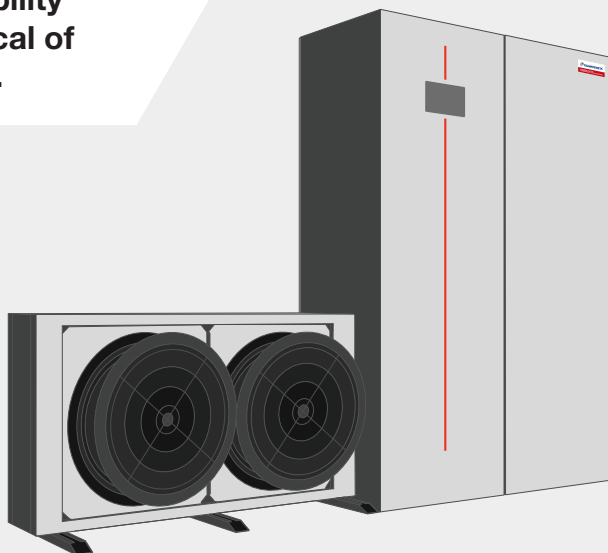
**2 COLOCATION DC**

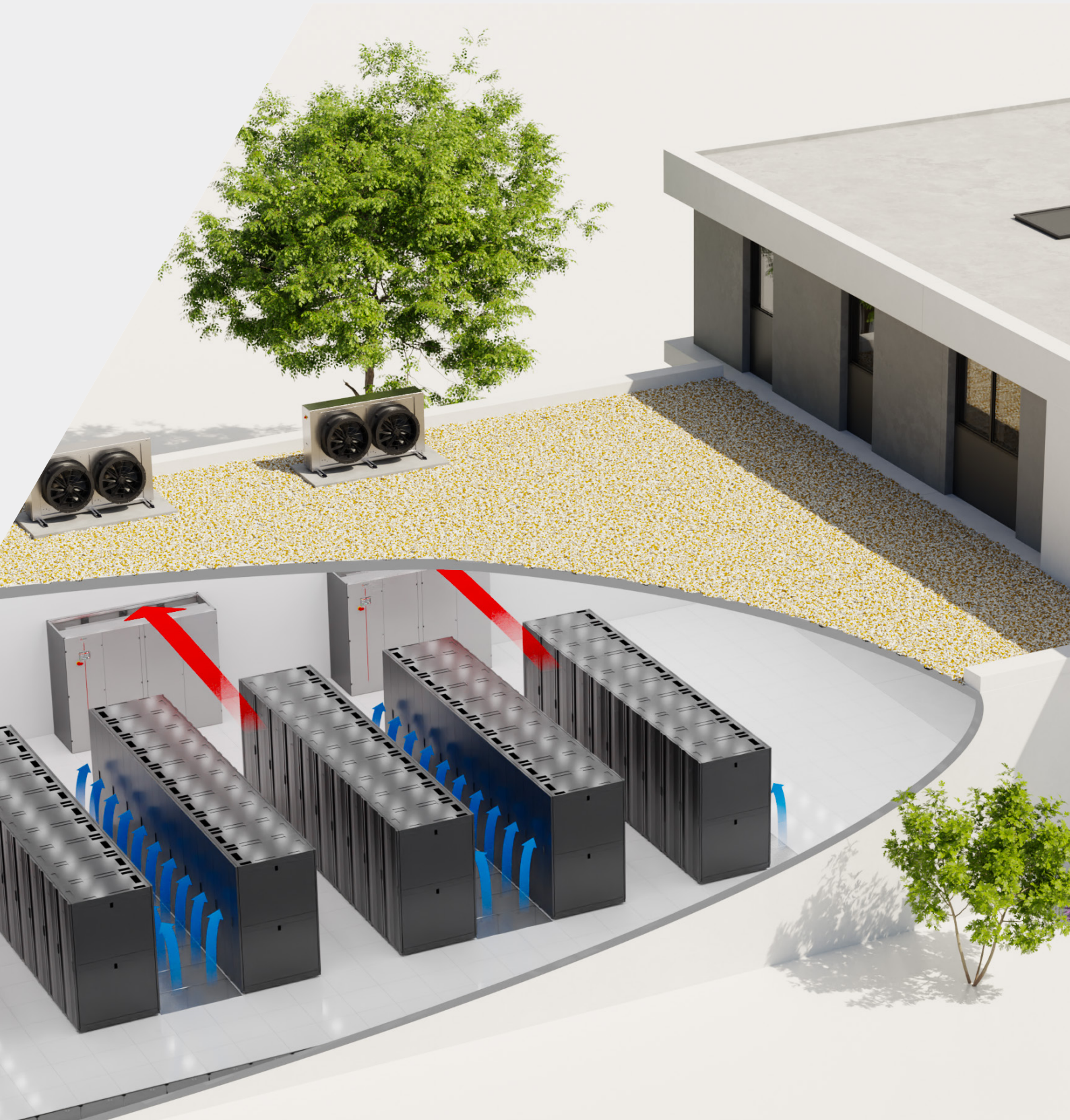
**4 BATTERY ROOMS**

## FAST DEPLOYMENT AND SCALABILITY

**x-AV3 improves the scalability and rapid installation typical of direct expansion systems.**

Complete solution made by the internal perimetral direct expansion unit and the external remote condenser or dry-cooler.







# TECHNOLOGICAL CHOICES

## MICROCHANNEL COIL

**Innovative microchannel evaporator coil thanks to intensive research and development.** In this way it has been possible to make the unit even more compact, achieving a very competitive footprint.

## MICROCHANNEL COIL

High quality Scroll compressor that increases the level of efficiency. Thanks to the manufacturing and the high number of tests, reliability is guaranteed as never before. With the new inverter driver the efficiency, reliability, and accuracy have increased. It will be possible to control the compressor by improving its speed regulation while minimizing stress.



## MICROCHANNEL COIL

Introduction of a new impeller, designed in-house that provides an unreachable hydraulic efficiency.



## INTERFACING DEVICES



Compact keyboard (STD)



7 inch touch screen (opt.)



KIPLink (opt.)

## GX2 & DX2 UNITS

The new range of remote condensers & Dry-coolers allows you to choose the most suitable type of Fan from EC to AC.

In addition, for the remote condensers are available with different coils, either tube & fin or microchannel, and also different treatments.



**x-AV3 grants the highest quality standards, thanks in part, to the adoption of specific Japanese design techniques.**

Such as the Kako Tora, that studies and solves defects encountered by previous similar ranges, and Poka Yoke, that prevents possible new problems, and makes maintenance and service activities as easy as possible.

# AVAILABLE VERSIONS

Total flexibility between internal and external units

Attention to operating costs and system reliability are always high in IT environments. For this reason, versions with Free-cooling and Dual Fluid systems find a perfect fit even in the most demanding plants.

## SINGLE FLUID

**DX** To be paired with remote air-cooled condenser.



**DW** Equipped with built in water-cooled condenser.




**DX** and **DW** single-source versions are the simplest solutions to implement in a system.



## FREE COOLING

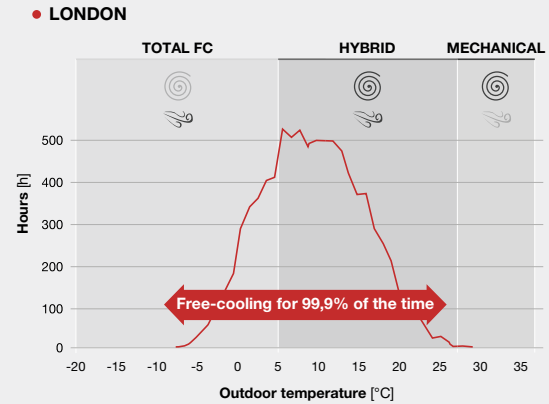
### DW-FC

Equipped with build in water-cooled condenser + FC coil

 FC INTEGRATION AVAILABLE



### TEMPERATURE DISTRIBUTION AND OPERATING MODES



A bypass system allows dry-cooler water to be circulated internally to the water coil in order to work in **free-cooling** conditions.

## DUAL FLUID SYSTEM

### DX-DF

 FC AVAILABLE



### DW-DF

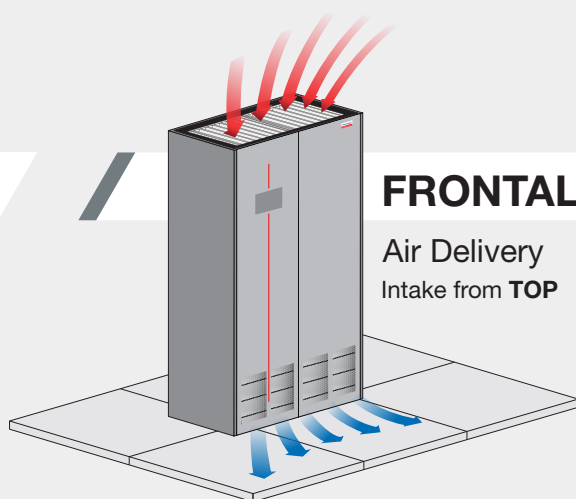
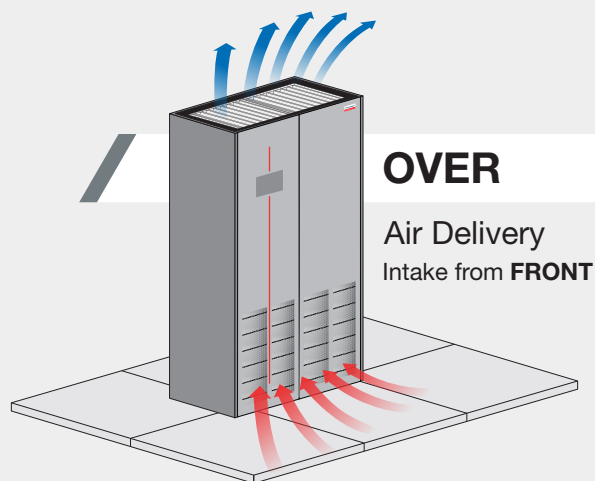
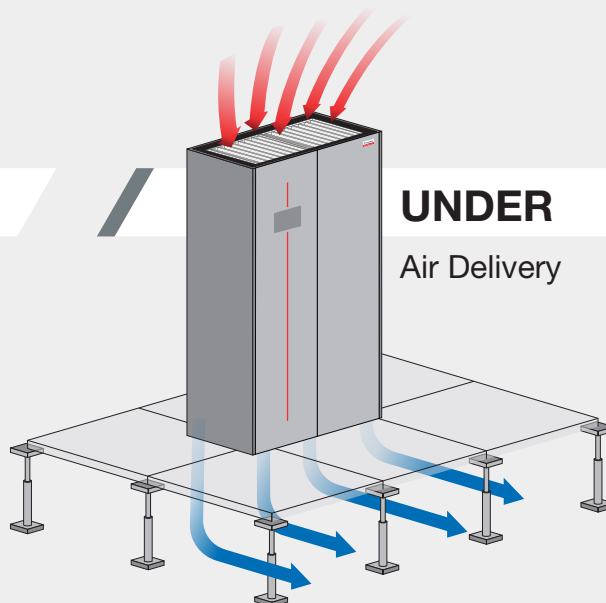
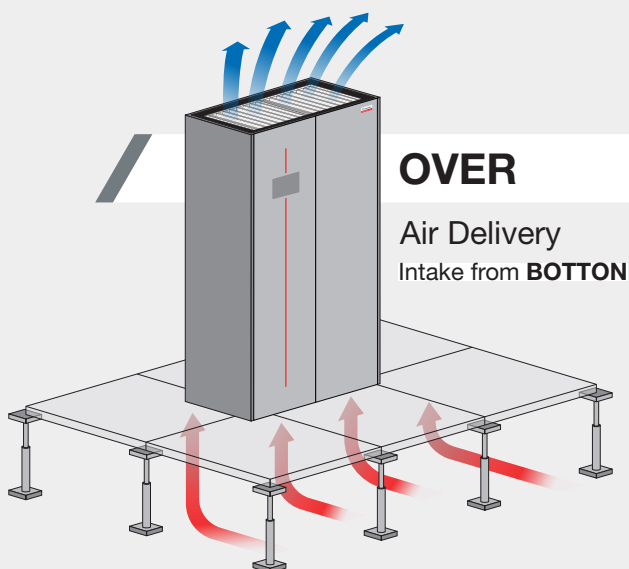
 FC AVAILABLE



The ability to exploit **two independent sources**, to increase the redundancy of the system and facilitate routine maintenance.

# CONFIGURATIONS

Several air deliveries available.

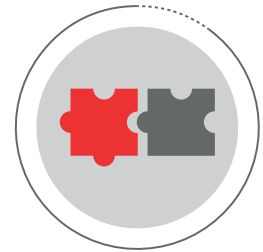


# ACCESSORIES

Rich choice of options.

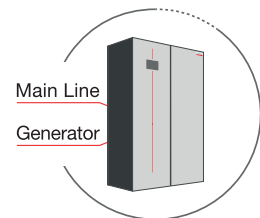
## PLENUMS & DUMPERS

A wide selection of plenums and dumpers are available to fit any type of system. Specific mechanism ensures full accessibility to inner components.



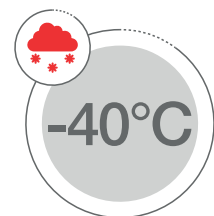
## UNINTERRUPTIBLE OPERATION

Thanks to a control BACKUP modul and ATS the units can ensure continuity of operations even in power failure circumstances.



## EXTREME INSTALLATION

A devoted liquid receiver allows for the installation of very long lines (up to 100m) or in very low outdoor temperatures (down to -40 °C).



# USER INTERFACE

State-of-the-art interface in terms of user experience

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.

Dedicated menus show the main operating parameters like temperature, humidity, and ventilation.

## 1 INTUITIVE ICONS

for a better user experience

## 2 MULTILANGUAGE

13 available languages

## 3 REAL-TIME DISPLAY

of main operating variables

## 4 QUICK MENU ACCESS



# KIPLink CONNECTIVITY

Based on proprietary technology, KIPLink allows one to operate the unit directly from a mobile device smartphone, tablet, or notebook.

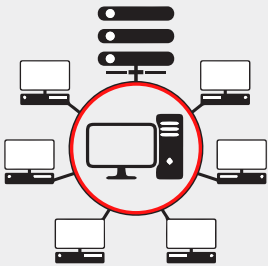
## REMOTE CONTROL

In local network (LAN) of building or remotely through VPN with internet browser.

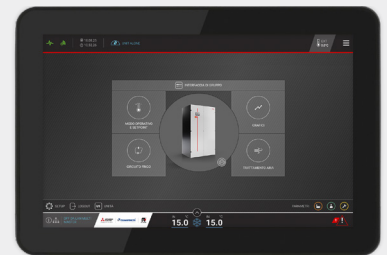
## WI-FI KEYBOARD

Close to the unit with MEHITS APP access.

### BROWSER



### MOBILE DEVICE



## LAN PORT



With a simple Ethernet connection, it is possible to connect KIPLink to the facility LAN and get full access to the unit's control with a browser.

## LOCAL WI-FI



Direct access is achieved by scanning the QR-code positioned on the front side of the unit.





# FACTORY ACCEPTANCE TEST EXPERIENCE

Test your unit before installation and make sure its performance is totally reliable.

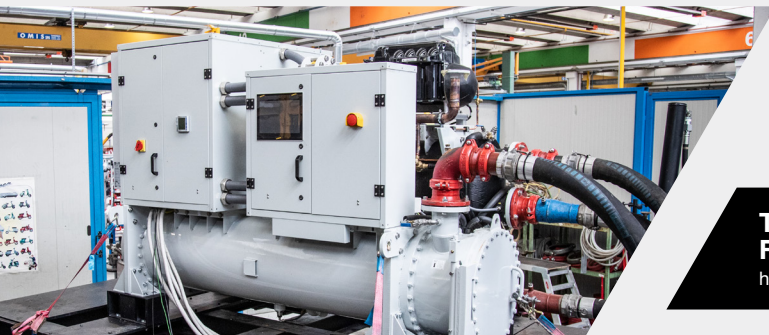


# FACTORY ACCEPTANCE TEST

**Factory Acceptance Test is available as additional service in order to test the unit under specific conditions.**

**Carried out within modern and sophisticated facilities, this service gives the customer the possibility to choose among different test options in order to:**

- ✓ Verify unit operation under severe conditions
- ✓ Check performance, both at full and partial loads
- ✓ Test the unit with low outdoor air temperature operation
- ✓ Detect sound emissions
- ✓ Time the fast restart



**TO LEARN MORE ABOUT  
FACTORY ACCEPTANCE TEST**

<https://www.youtube.com/watch?v=Cy2FXAfhvj8>





## **mitsubishi electric hydronics & it cooling systems S.p.A.**

Head Office: Via Caduti di Cefalonia 1 - 36061 Bassano del Grappa (VI) - Italy

Tel (+39) 0424 509 500 - Fax (+39) 0424 509 509

[www.climaveneta.com](http://www.climaveneta.com)

[www.melcohit.com](http://www.melcohit.com)