

COMFORT APPLICATIONS

PRODUCT OVERVIEW

► CHILLERS

► HEAT PUMPS

► UNITS FOR SIMULTANEOUS AND INDEPENDENT PRODUCTION OF HOT AND COLD WATER

► ROOFTOP UNITS

► AIR HANDLING UNITS

► HYDRONIC TERMINALS

► CONTROL, SUPERVISION AND OPTIMISATION SYSTEMS

► ANCILLARY PRODUCTS

**NEW GREEN
REFRIGERANT SERIES**

R 1234ze

**G04
SERIES**

R R513A

**G05
SERIES**

CLIMAVENETA'S MISSION



Climaveneta's mission is to provide energy efficient heating, air conditioning, and optimisation solutions that enhance everyone's comfort, improve the profitability of a building, and do not contribute to an increase in CO₂ levels.

As a European leader in the HVAC industry, Climaveneta has provided premium air conditioning and heating solutions for the most challenging and demanding projects worldwide for over 45 years. Building on this strong legacy, Mitsubishi Electric Hydronics & IT Cooling Systems S.p.A. has decided to turn Climaveneta into the Group's specialized brand for hydronic comfort applications.

The result is the most complete range of advanced solutions providing enhanced usability, energy

efficiency, and environmental sustainability to modern buildings, as well as for the health, and well-being of the people who spend their time there.

These solutions are backed by a business approach based on flexibility and capability to adapt the system to the requirements of each project, as well as on vast experience and on the strength of belonging to a large multinational group such as Mitsubishi Electric in terms of integrated R&D, operations and central functions.

Leadership in smart heat pumps for 4 and 6 pipe systems

**Extensive Range
of Hydronic units
from 1 to 4.549kW**

**Complete range of
rooftop units up to 350kW
and AHUs up to
100.000m³/h air flow**

**Vast portfolio of
Control, Monitoring
and Optimisation
systems**

12 specialized
manufacturing hubs

Countless succesful projects worldwide

3 standard energy
efficiency settings

8 standard noise
reduction configurations

- Sales network
- ♥ Manufacturing hubs or R&D labs





Climaveneta solutions for comfort applications are designed to provide even in the most challenging residential, office, hotel and retail projects:



Perfect Comfort and Well-being



Ensuring a perfect control of temperature, humidity as well as of air quality and noise level, ideal comfort conditions are ensured even in the most demanding applications and challenging climate conditions.

Environmental Respect



Decreasing energy consumption, cutting carbon emissions and making the most extensive use of renewable sources are key elements of a high quality HVAC, making a positive contribution to greener buildings and better energy performance ratings.

Specific Solution for each project



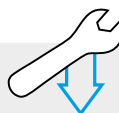
A vast range of highly configurable products, combined with solutions dedicated to each project, when even the highest configurability is not enough, is key to delivering best comfort with no limitations on architectural choices, reduced footprint of technical systems and no aesthetical impact.

Lowest cost of ownership



Thanks to cutting-edge solutions designed around technological innovation and sustainability in order to drive down initial investment, running costs and maintenance, and to increase the total life cycle of the product.

Simplified on-site operations



Climaveneta units apply a “plug & play” design approach that integrates many functions traditionally provided by different systems, such as heating and cooling. They are equipped with all options and accessories in order to make on site operations rational, simple and predictable, with countless advantages in project management.

Enhanced value of the real estate development



By reducing operational expenses due to running costs and maintenance, as well as by optimising initial investment and opening the opportunity to benefit for energy reduction and green solutions incentives, Climaveneta solutions are a key asset in making new or existing properties more valuable and profitable.

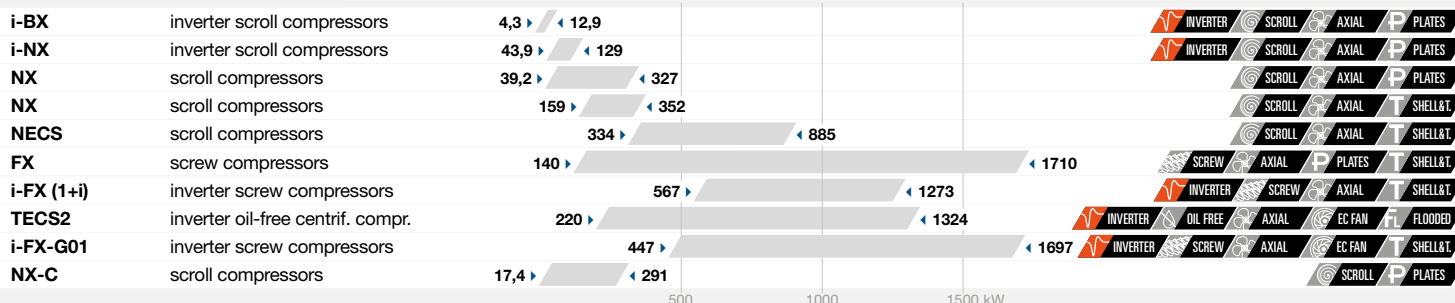
CHILLERS



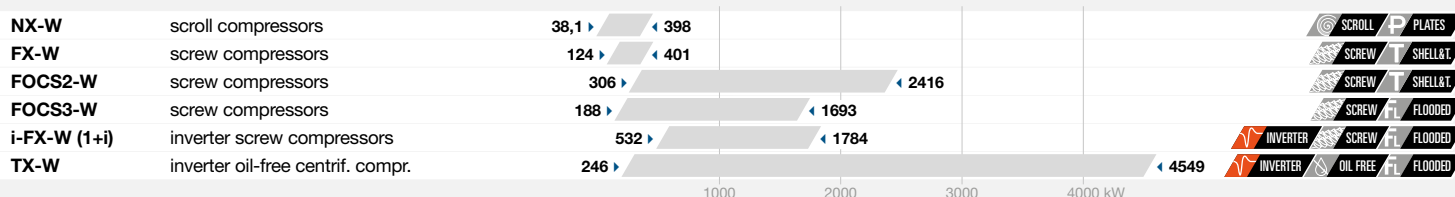
- ▶ Highest energy efficiency
- ▶ Perfect indoor climate control
- ▶ Lowest noise emissions



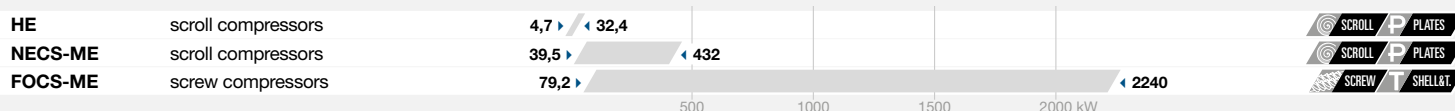
Air cooled chillers



Water cooled chillers



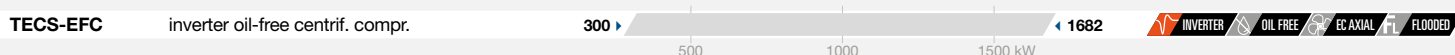
Condenserless chillers



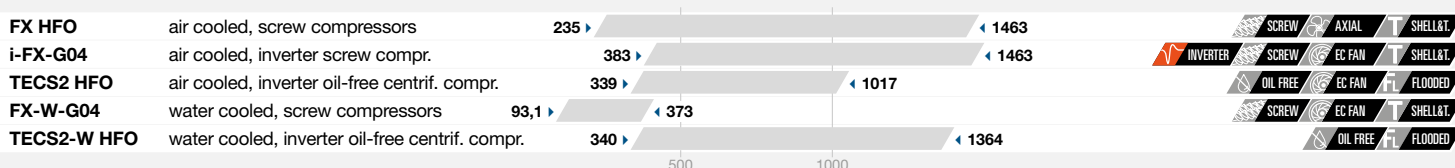
Air cooled chillers with free-cooling technology



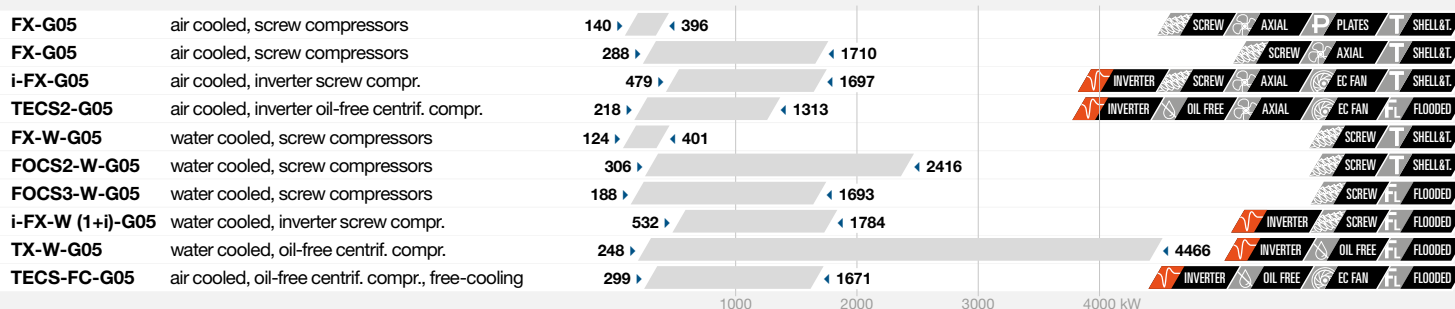
Air cooled chillers with evaporative free-cooling technology



G04 SERIES Air and water cooled chillers with HFO 1234ze



G05 SERIES Air and water cooled chillers with R513A



ADVANCED TECHNOLOGIES FOR HIGH EFFICIENCY AND HIGH QUALITY AIR CONDITIONING SYSTEMS

Climaveneta's leadership in air conditioning and heating is backed by over 45 years experience in the smart integration of premium technologies for the most challenging projects worldwide



Magnetic Levitation

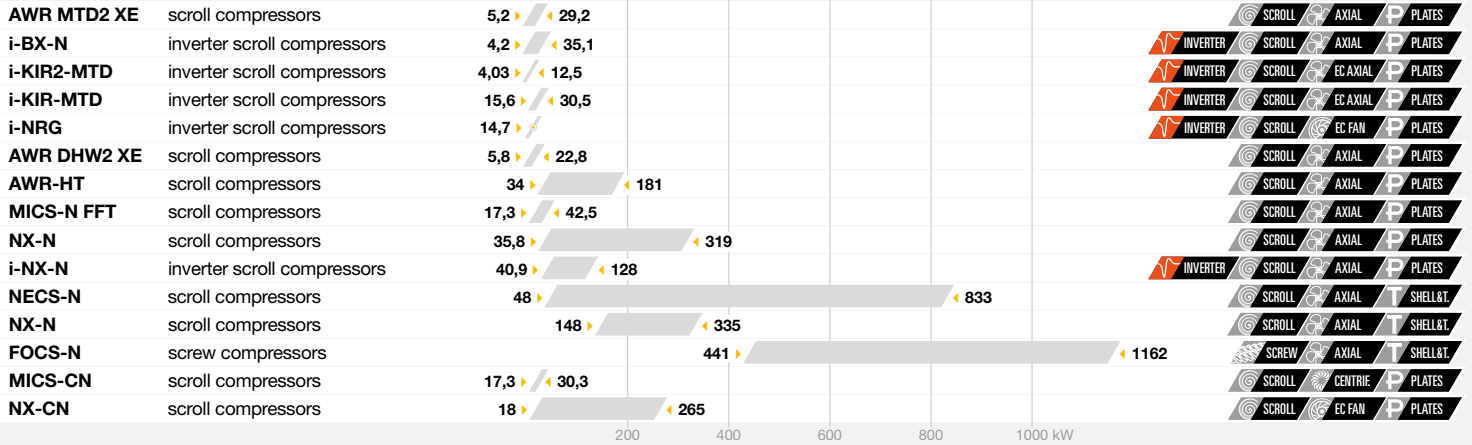
An extended range of chillers with magnetic levitation centrifugal compressors from 200kW to 4MW, both air source and water source, available also in free cooling and evaporative free cooling versions, to deliver highest efficiency in every application.

HEAT PUMPS

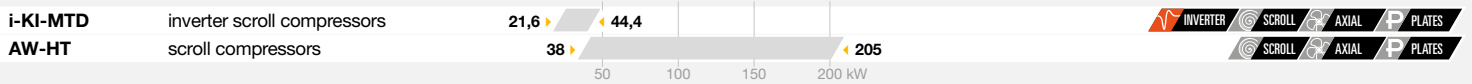
- ▶ Operating limits up to -20°C
- ▶ Hot water production up to 78°C
- ▶ Highest energy efficiency



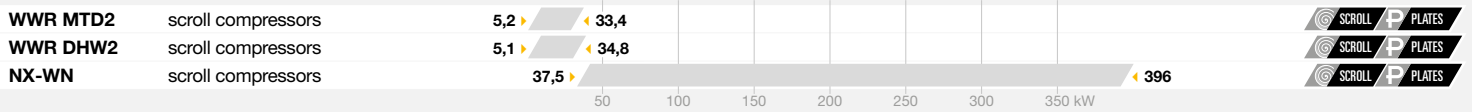
Air to water reversible heat pumps



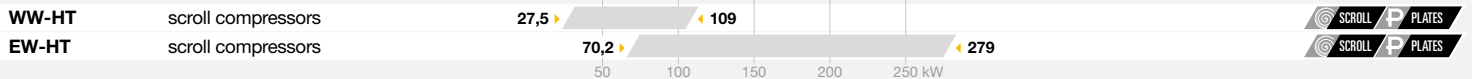
Air to water heat pumps (heating only)



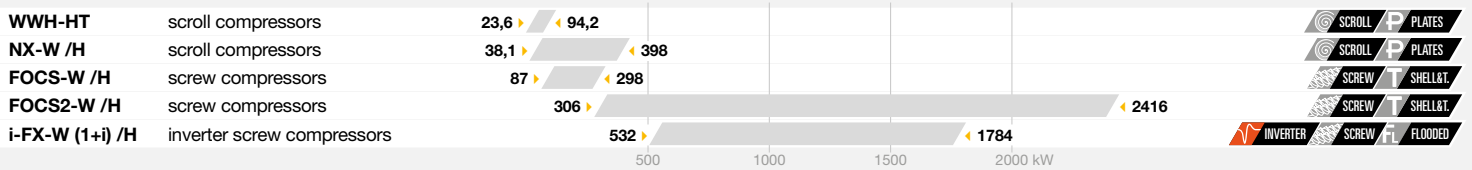
Water to water reversible heat pumps



Water to water heat pumps (heating only)



Water to water heat pumps reversible on the hydraulic side



Geothermal reversible heat pumps



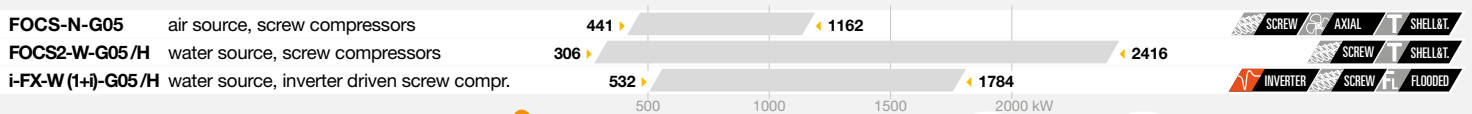
Geothermal reversible heat pumps (heating only)



G05 SERIES

Air and water source heat pumps with R513A

R R513A



Smart Thermal Energy Management

An innovative heat recovery system that allows the smart use of rejection heat from the industrial process for comfort heating and other neighbouring applications.

Inverter Driven Compressor

The possibility to modulate cooling capacity results in increased efficiency as well as in the possibility to effectively implement smart management solutions such as active redundancy.

New G04 and G05 Series using green refrigerants

Following on vast experience in using green refrigerants, Climaveneta has already employed extensively green HFO refrigerants such as HFO1234ze and R513A in many ranges, in order to continue to be at the forefront with green best practices.

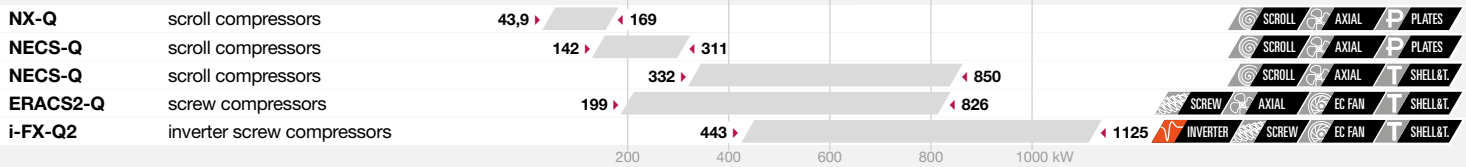
UNITS FOR SIMULTANEOUS AND INDEPENDENT PRODUCTION OF HOT AND COLD WATER



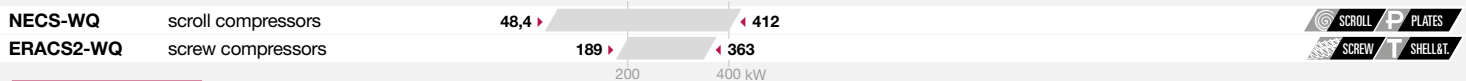
- ▶ Highest efficiency in combined hot and cold water production
- ▶ Rationalized system design and reduced footprint



Air source heat pumps



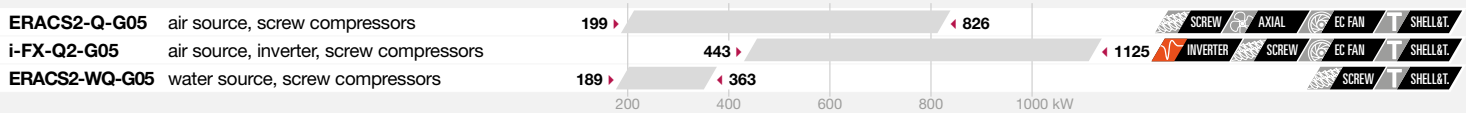
Water source heat pumps



G05 SERIES

Air and water source 4-pipe heat pumps with R513A

R R513A



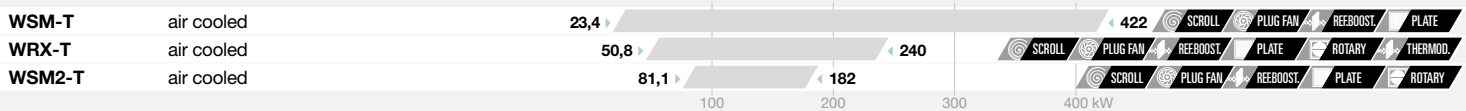
ROOFTOP UNITS



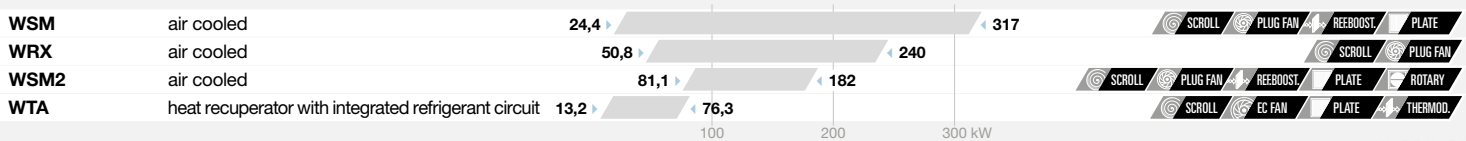
- ▶ Widest range and complete configurability
- ▶ Perfect thermoigrometric control
- ▶ Maximum flexibility in the air flow management



Air to air rooftop unit, cooling only



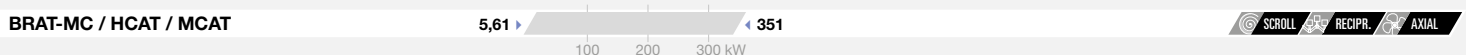
Reversible air cooled rooftop unit



ANCILLARY PRODUCTS



Condensing units



Remote condensers



V-AIR

High efficiency EC technology fans are extensively adopted for their advantages with 15% energy reduction compared to traditional EC fans.

VPF

The VPF (Variable Primary Flow) dynamically optimizes the unit's thermoregulation for variable flow operation, thus ensuring both the highest pump energy savings and chiller stable operation.

High Water Temperature

Climaveneta vast experience in high leaving water temperature applications is proven by a complete range of technical solutions in these areas, to cope with any heating requirement, from 6 pipe applications to high temperature heating.

HYDRONIC TERMINALS

- ▶ Fan coil range for residential and commercial applications
- ▶ Complete range of accessories
- ▶ For exposed or concealed installation



Fan coils

a-LIFE3	residential or commercial fan coil unit	1,41 ▶	◀ 6,45	2 PIPES	4 PIPES	CENTRIE
i-LIFE2	residential or commercial fan coil unit	1,82 ▶	◀ 7,50	INVERTER	2 PIPES	4 PIPES
a-LIFE2 HP	fan coil unit for commercial applications	2,88 ▶	◀ 8,60	INVERTER	2 PIPES	4 PIPES
i-LIFE2 HP	fan coil unit for commercial applications	2,00 ▶	◀ 8,76	INVERTER	2 PIPES	4 PIPES
i-LIFE2 SLIM	residential fan coil unit	0,76 ▶	◀ 3,76	INVERTER	2 PIPES	TANGENT

Hi-wall type terminals

MHD2	high-wall terminals	2,15 ▶	◀ 4,63	2 PIPES	TANGENT
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Cassette type terminals

a-CXW	cassette terminal	3,20 ▶	◀ 11,3	2 PIPES	4 PIPES	CENTRIE
i-CXW	cassette terminal with inverter technology	4,56 ▶	◀ 9,42	INVERTER	2 PIPES	4 PIPES

Ducted type terminals

a-HWD2	ducted type terminal	5,87 ▶	◀ 21,9	2 PIPES	4 PIPES	CENTRIE
i-HWD2	ducted type terminal with inverter technology	6,20 ▶	◀ 22,3	INVERTER	2 PIPES	4 PIPES

Heat recuperators

HRD2	heat recuperator	3,68 ▶	◀ 31,4	EC FAN	PLUG FAN	PLATE
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AIR HANDLING UNITS



MWZ	compact air handling unit					
WIZARD	fully configurable air handling units	600 ▶	◀ 115400	20000	40000	60000

CONTROL, SUPERVISION AND OPTIMISATION SYSTEMS



Group devices

- ▶ **ClimaPRO Plant Room Optimisation System**
Plant Room Optimiser for real time, smart management of energy indexes for the single units and the entire plant room.
- ▶ **MANAGER 3000**
Specialized group control.
- ▶ **SEQUENCER**
The ultimate solutions for supervision, remote monitoring, service, and preventive maintenance.



Supervision and monitoring systems

- ▶ **IDRORELAX**
Monitoring and supervision system.

Human Machine Interfaces

- ▶ **KIPLink**
Control interface for smart phones and tablets.



Proprietary Control Logics

The performance of Climaveneta units is enhanced also by their control logics, based on a proprietary logics and know-how, deployed in a vast range of solutions.



Leading Heat Recovery Technology

Climaveneta is a recognized leader in heat recovery applications and in its product employs in the most effective way all the most performing solutions such as thermodynamic, plate and rotary heat recovery as well as refrigerant booster.



Configurable Efficiency Set

The willingness to cope even with the most demanding energy efficiency projects is reflected by the availability of 3 energy efficiency standard configurations in most hydronic units.



for a greener tomorrow

Eco Changes is the Mitsubishi Electric Group's environmental statement, and expresses the Group's stance on environmental management. Through a wide range of businesses, we are helping contribute to the realization of a sustainable society.



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

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