



Mitsubishi Electric,
the pleasure of the perfect comfort.

History and presence in the world

Corporate Social Responsibility,
Integrity and Equity and Global
Vision: our values leave their
mark.

TODAY MITSUBISHI ELECTRIC OPERATE IN AFRICA, **AMERICA**, ASIA, **AUSTRALIA**, AND EUROPE.



The Mitsubishi brand name (from the Japanese “Mitsu Bishi” which means “three diamonds”) was established in 1870 by the shipping company of Yataro Iwasaki.

2020 marks the 150th year since Yataro Iwasaki founded what was to become the Mitsubishi Group. To commemorate this anniversary Mitsubishi Companies are renewing their commitment to the **three company principles established in 1870: Corporate Social Responsibility, Integrity and Equity, and Global Vision through business activities.**

Mitsubishi Electric Corporation was established 50 years later, in 1921, and specialized in the development, production, and distribution of electrical and electronic equipment. In the 1930s Mitsubishi Electric started manufacturing, installing, and maintaining lifts and escalators, while also producing equipment for generating energy. By 1960 the company had stood out as one of the most innovative and diversified manufacturers of electrical equipment in Japan, and over the following years they focused increasing attention on the environmental impact of their production techniques, long before environmental problems became everyday issues. Over the following two decades the company began expanding abroad and at the same time became pioneer in the development of computers, advanced air conditioning systems, electronics for vehicles, solar powered satellites, and energy generation.

From 1980 until today, Mitsubishi Electric has introduced and reformulated innovative products and technologies to the advantage of society, industry, and individuals. Examples include the first spherical OLED screen, the first spiral escalator, the fastest lifts in the world, and the first aerial capable of transmitting a commercial announcement worldwide on the Internet.

Today Mitsubishi Electric is committed to develop and application of new technologies based on artificial intelligence (AI).

The company benefits from the collaboration of over 145,000 employees around the world, with an overall turnover for the year ending 31 March 2023 of 5,003.6 billion Yen (37.3 billion USD*).

It has been present in Europe since 1969 with twenty branches operating in: Belgium, Czech Republic, France, Germany, Holland, Italy, Ireland, Norway, Poland, Portugal, Romania, Russia, Slovakia, Spain, South Africa, Sweden, United Kingdom, Turkey, Hungary, and UAE (United Arab Emirates).

The Italian branch was established in 1985 with three business units: **Air Conditioning** - for residential, commercial and industrial environments, including heating, dehumidification, and air treatment; **Factory Automation and Mechatronics** - equipment and systems for industrial automation; **Automotive** - systems and components for controlling car and vehicle mechanisms. It also provides support for sales of **Semiconductors**.

*At an exchange rate of 134 Yen for 1 US dollar, as cited by the Tokyo Exchange Market on 31/03/2023

Mitsubishi Electric's environmental commitment

We are strongly committed to creating environmentally friendly products and activities.



Mitsubishi Electric has traditionally been a responsible member of the communities in which it operates. Limiting our impact on the environment is therefore one of our top priorities, which is why our continuous efforts aim to ensure a better future through cutting-edge environmental technologies and manufacturing know-how.

For this reason, since 2009 Mitsubishi Electric Italian branch is certified ISO 14001. This certification issued by Det Norske Veritas, shows the concrete commitment to minimize the environmental impact of processes, products and services and confirms the reliability of the environmental management system applied.

In July 2021, Mitsubishi Electric Corporation announced that has achieved the main goals of its just-completed **Environmental Vision 2021**, the Group's long-term environmental management strategy introduced by the company in 2007. By achieving the goals of this program, the Group has contributed to the realization of a more sustainable low-carbon world by promoting the recycling of resources along with respect and harmony with nature.

The guiding principles of Environmental Vision 2021 are designed to make a major contribution to society through a variety of initiatives that will see their conclusion at the end of Fiscal Year21, Mitsubishi Electric's 100th anniversary year. More specifically, the following targets have been achieved:

- **Low carbon society:** The company achieved a 36% reduction in greenhouse gas (CO₂) emissions from product use from FY2001 level, exceeding the original target of 30%. In terms of CO₂ emissions from manufacturing operations, a 56% reduction from FY1991 level was achieved, significantly exceeding the original target of 30%.
- **Recycling-based company:** Final waste disposal rate was reduced in Japan to 0.02% (target: < 0.1%) while a rate of 0.15% (target: < 0.5%) was achieved overseas. By reducing the size and weight of its products, Mitsubishi Electric reduced resource use by an average of 43% from the FY2001 level, exceeding the target of 30%. In addition, water consumption per sales unit was reduced by 20% from the FY2011 level, double the initial target of 10% (1% per year).

In its new Environmental Sustainability Vision 2050, Mitsubishi Electric places environmental protection as a top priority and sets out an increase in initiatives aimed at this end. The Vision defines the future programme in terms of implementing key initiatives based, primarily, on the environmental statement: **“Protecting air, land and water with heart and technology to sustain a better future for all”**.

In particular, the new Environmental Sustainability Vision 2050 sets an ambitious goal of reducing greenhouse gases throughout the value chain, aiming to achieve a **total reduction in CO₂ emissions by 2050**. As the global trend towards decarbonisation accelerates, Mitsubishi Electric Corporation has indeed announced that **will become a carbon neutral company by 2050**.



A tangible commitment based on three action directives regarding environment:

- **Apply various technological resources across the vast range of sectors of activity** to mitigate a number of environmental problems including climate change, recycling of resources, and harmony with nature along the entire value chain.
- **Face the challenge of developing company innovations for future generations:** the Mitsubishi Electric Group can count on significant internal and external resources, and when required these will be brought together to help resolve difficult problems in the development of new company technologies and innovations suited to future generations.
- **Divulgate and share new values and lifestyles:** Mitsubishi Electric Group will actively promote dialogue, collaboration, and joint creation with numerous subjects and bodies external to the group, divulging and sharing new values and lifestyles that enable people to live better and in harmony with nature.

SUSTAINABLE DEVELOPMENT GOALS

Mitsubishi Electric Group has established the main elements of its action plan by grouping priority environmental initiatives into two macro areas: “provide solutions to social challenges through our business” and “strengthen our business foundation to enable our sustainable growth”. The action plan is based on the principles of the SDG Goals, the 17 Sustainable Development Goals defined by the United Nations as a global strategy to promote global balance.

With the aim of achieving a strong and sustainable society, five new themes have been redefined. These include “realize a sustainable global environment”. Mitsubishi Electric has prioritised the response to climate change even more, targeting to reach zero greenhouse gas emission across the entire value chain by 2050.

Mitsubishi Electric air conditioning

New horizons
in ambient comfort,
new technologies
that look to the future.





OUR SOLUTIONS FOR A BETTER FUTURE INCLUDE:

STATE-OF-ART TECHNOLOGY,
HIGH ENERGY EFFICIENCY,
JAPANESE QUALITY, RELIABILITY,
SILENT OPERATION, AND
ENVIRONMENTAL PROTECTION.



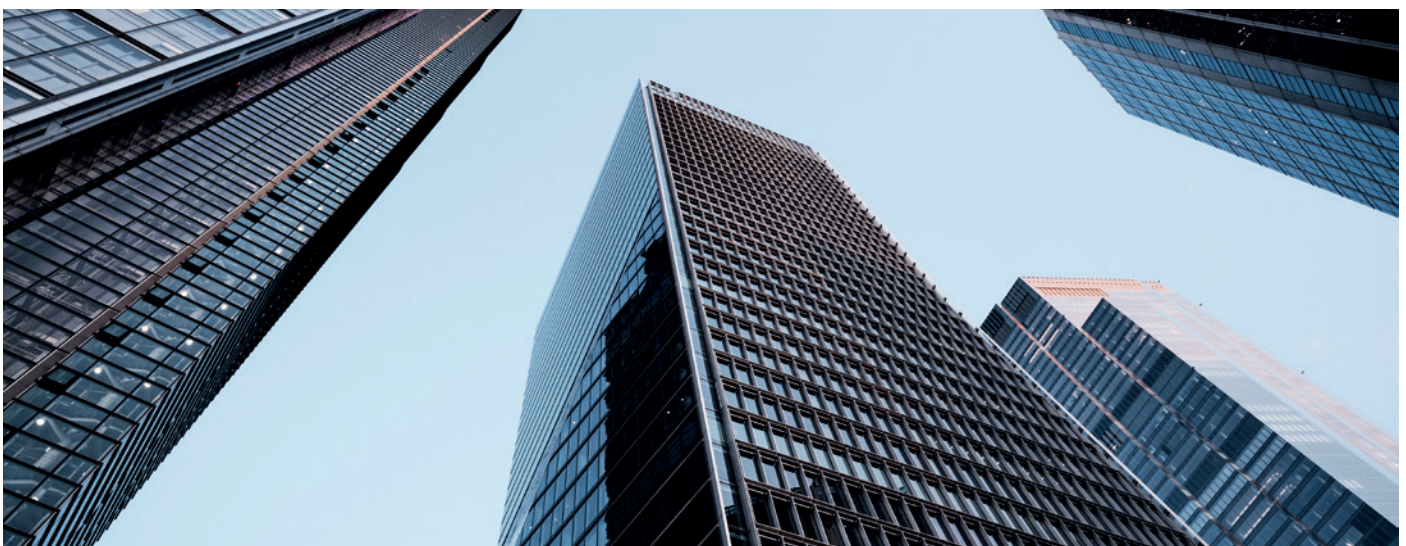
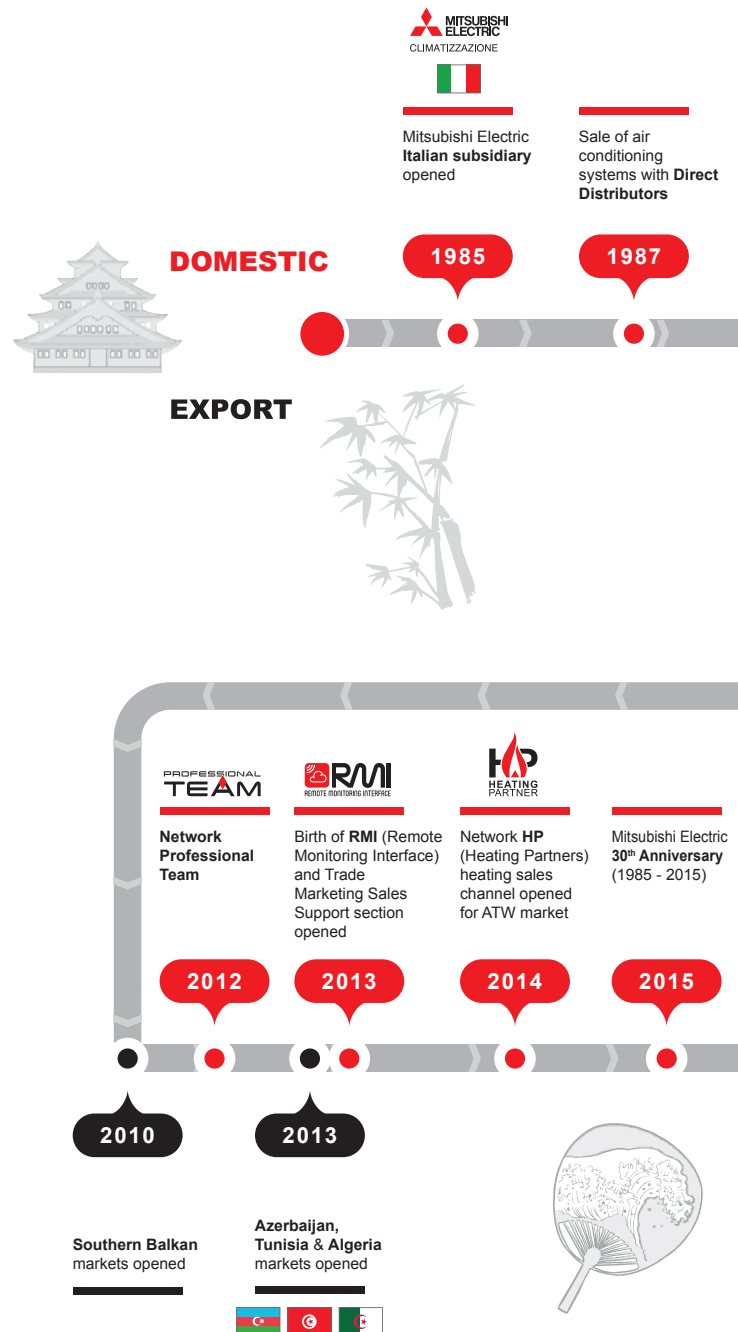
Mitsubishi Electric is committed to creating new values for a sustainable future for 2050, a programme already underway for some time and through constant investment in Research & Development is now reflected in every product and solution that our Japanese company creates.

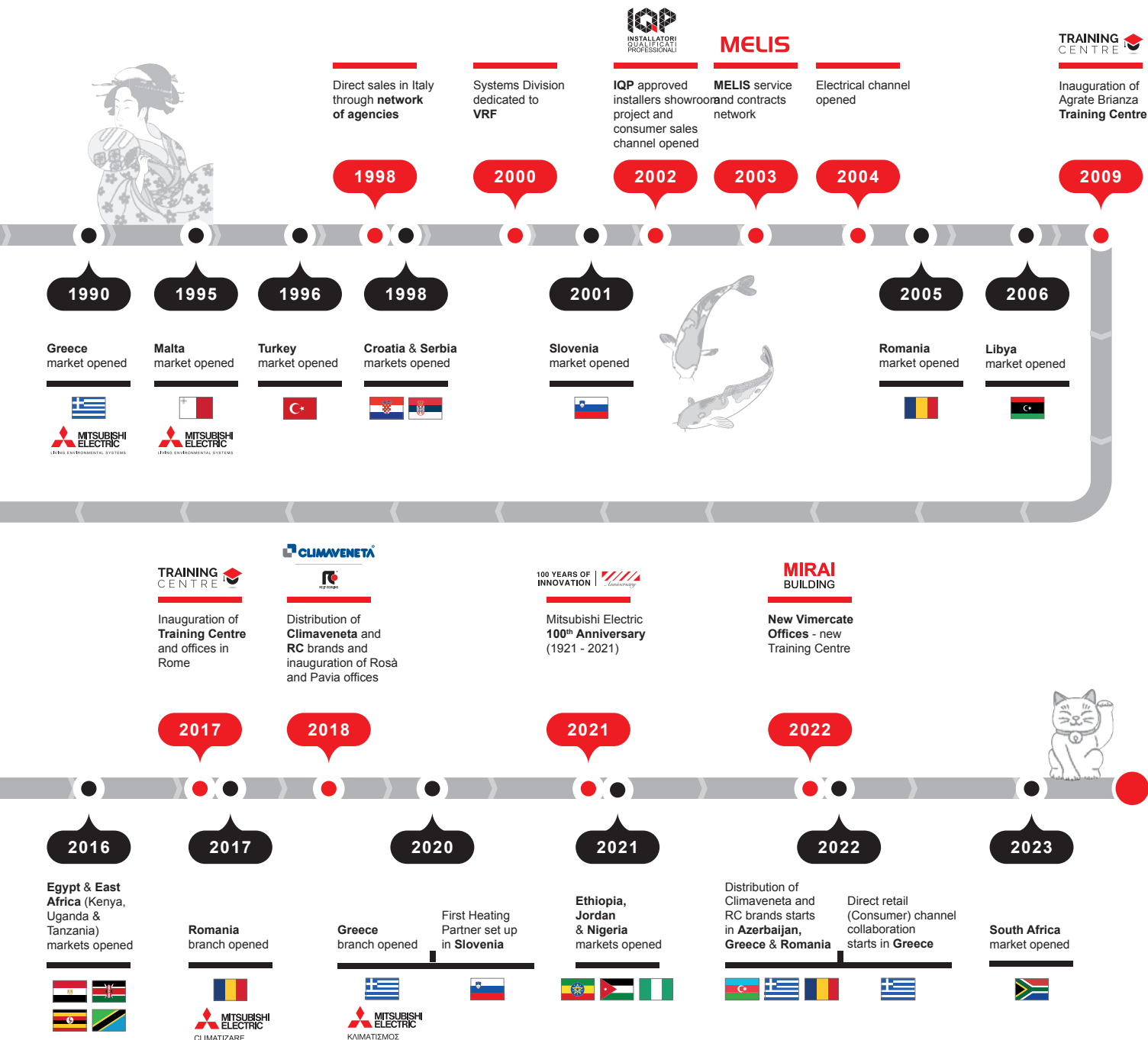
The Corporate Message: **“Protect the air, earth, and water with sentiment and technology to create a better future for everyone”** establishes guidelines for all **Mitsubishi Electric Air Conditioning Division** initiatives and projects. These emerge in each individual installation, with the aim of guaranteeing maximum utility in every environment, while at the same time reducing energy consumption, running costs, and CO₂ emissions.

Innovative solutions for energy saving and the use of renewable energy are priority targets for Mitsubishi Electric. With the acquisition in 2015 of the Climaveneta and RC brands, specialized in hydronic air conditioning systems and IT cooling, they have extended and enhanced their range for **air conditioning, heating, dehumidification, and air treatment.**

Maximum efficiency and high yield performance are the unique characteristics of Mitsubishi Electric solutions ranging from innovative hydronic heat pumps for heating, cooling, and hot sanitary water production, to control and monitor systems, from air conditioning for the residential, tertiary, and commercial sectors, to a complete range of solutions for air treatment and dehumidification, multifunction units, chillers, and air conditioning for datacenter cooling.

In addition to their outstanding products, Mitsubishi Electric Air Conditioning is also an ideal partners, always placing customers centre stage, whether these are final users or professionals, and providing top class services to satisfy their needs at all times.





TRAINING CENTRE

Mitsubishi Electric's Air Conditioning Section have **Training Centres** in Vimercate and Rome, integrated with an extensive network of Authorized Technical Centres, enabling them to **assist customers from initial consultation all the way to after-sales product support**. This Section is distinguished by their provision of training, with a constantly updated course program, dedicated web portal, and diversified participation methods. Mitsubishi Electric's training modules are designed to keep up with the constantly evolving needs of professionals and provide comprehensive expert know-how.

Low environmental impact refrigerants

DISCONTINUATION OF HFCs IN 2033

	2027	2029	2030	2032	2033	2035
Self-contained unit ≤ 12 kW	GWP < 150			only natural refrigerants		
Self-contained unit ≤ 50 kW	GWP < 150					
Self-contained unit > 50 kW			GWP < 150			
Chiller ≤ 12 kW	GWP < 150			only natural refrigerants		
Chiller > 12 kW	GWP < 750					
Split A2A ≤ 12 kW		GWP < 150				only natural refrigerants
Split A2W ≤ 12 kW	GWP < 150					only natural refrigerants
Split A2W > 12 kW		GWP < 750			GWP < 150	

CONTEXT

At the UN Climate Conference in 2009, the state governments assumed the obligation to keep global warming **within +2°C** by the end of the century. According to the scientific community, an increase of over +2°C average temperature could trigger uncontrollable consequences in the terrestrial ecosystem. In order to achieve this target the European Council has imposed reductions **in greenhouse gas emissions of 80% to 95% relative to 1990 levels, by 2050**. The roadmap defined by the EU towards a low CO₂ emissions economy demonstrates the need for commitment from all sectors involving all greenhouse gasses, including fluorinated gases. Although the latter only represent 2% of total greenhouse gasses in the EU, they nevertheless have an extremely high potential for causing global warming. Increased wealth and population growth have boosted demand for devices containing fluorinated gases. Since 1990 there has been a marked **increase in world production and use of fluorinated gases** which, if not contained, could result in considerable atmospheric emissions.

HFCs (hydrofluorocarbons) are the most commonly used group of fluorinated gases for refrigerants in refrigeration and air conditioning systems, and heat pumps. A recent European agreement for reduced use of these substances obliges all air conditioning machine manufacturers to find lower environmental-impact alternatives. A gradual reduction has been underway since 2015 following the drafting of the first version of the F-Gas Regulation, which has been greatly modified in recent months. New prohibitions have been imposed on the use of certain types of HFCs (those with the highest GWP), coming into force progressively over the next few years. The EU has adopted a firm position that strives to limit global warming as much as possible by drastically reducing the release of greenhouse gasses in favour of systems, like heat pumps, that are better able to exploit renewable energy sources. This obligatory but virtuous process will undoubtedly bring environmental benefits as well as improving the performance of the machines themselves.

On this basis, Mitsubishi Electric will continue their policy, already underway for a number of years, of using low GWP refrigerant gasses in line with their own philosophy and the new EU directives.


WHAT GWP AND ODP MEAN

Global Warming Potential (GWP) is an index for the potential impact of a substance in the global greenhouse effect, based on an equivalent corresponding mass of CO₂. It is a relative index comparing the impact of 1 kg of refrigerant against 1 kg of CO₂ over 100 years.

Ozone Depletion Potential (ODP) is an index for the potential harm of a refrigerant gas in relation to the stratospheric ozone layer. The international community have long been aware of the damage caused by certain substances to the atmospheric ozone that shields us from harmful solar radiation.

Mitsubishi Electric uses low environmental impact gasses that do not harm the ozone layer in any way if released into the atmosphere, exhibiting low GWP values and an ODP of 0.





**THE REFRIGERANT GASSES USED
BY MITSUBISHI ELECTRIC ARE
COMPLIANT WITH EU DIRECTIVES
AS REGARDS REDUCING THE
GREENHOUSE EFFECT AND **NOT**
HARMING THE OZONE LAYER.**

SPLIT & MULTISPLIT

We offer the most extensive range of home and small-scale commercial air conditioning systems for all applications and contexts. Our range stands out for its advanced design, air quality, innovative functions, and unequalled performance.



VENTILATION SYSTEM CONTROLLED MECHANISM

A complete mechanical ventilation system for residential applications: the system provides ventilation with high efficiency heat recovery along with all the necessary elements for air distribution within buildings.



HEAT PUMPS

A complete range of combined systems for heating, cooling, and sanitary hot water for residential applications, using the ecological refrigerants R32 and R290 in various configurations: split, hydrosplit, all-in-one units, and hybrid multisplit air-air and air-water. We offer a vast range of hydronic units for internal or cavity-mounted fitting, equipped with smart control logic.



VRF AND HVRF SYSTEMS

HYDRONICVRF CITY MULTI

A wide range of VRF and HVRF solutions for high energy efficiency, direct expansion air conditioning ensure comfort in residential, commercial, and tertiary contexts. Mitsubishi Electric present the new Small Y Compact line based on low environmental impact R32, compact in size and with all safety measures integrated. Available in dual residential and commercial configuration.





HYDRONIC SYSTEMS APPLIED

A full range of Mitsubishi Electric, Climaveneta, and RC brand refrigerators, heat pumps, and multi-purpose units available with low GWP refrigerants (R32, R454B, R513, and HFO) and enhanced with inverter technology.



NEW



ROOFTOP AND AHU

A full range of options for air exchange under both the Mitsubishi Electric and Climaveneta brands, with the most advanced heat recovery technologies to maximise efficiency and reduce energy consumption.



NEW



IT COOLING

Systems designed to ensure full efficiency of servers and data centres, combining the RC brand's experience in precision air conditioning with the technological excellence and reliability of Mitsubishi Electric.



CONTROL SYSTEMS

A wide variety of local, centralized, and cloud solutions makes it possible to integrate diverse system layouts and facilitate user interaction, while monitoring and optimizing operations.



NEW

Top class Mitsubishi Electric, Climaveneta, and RC IT Cooling services



MITSUBISHI ELECTRIC OFFERS CUSTOMERS CONTRACTS FOR DIRECT ACCESS TO THEIR TOP CLASS TECHNICAL SERVICES, DESIGNED TO ENSURE THE EFFICIENCY OF THEIR AIR CONDITIONING SYSTEMS BASED ON THE FOLLOWING DEDICATED ASSETS:

- **100 Staff professionals** ready to respond to all service requirements, be these commercial, technical, administrative, customer care, regulatory, or spare parts. They are based in sites in Vimercate, Rosà, Rome, and Pavia where they manage more than 3800 routine and extraordinary technical interventions and 2700 annual maintenance visits.
- **214 Authorized Technical Centres** scattered over the entire national territory of Italy are kept constantly up to date with the latest technologies, highly qualified, equipped with exclusive instrumentation, and provide specific product line specializations (Mitsubishi Electric, Climaveneta, RC IT Cooling).

Mitsubishi Electric can be reached by all customers through a **single free number (800 208 077)** for any Technical Service requests:

- Pre-installation visits
- System start-up
- Extraordinary technical interventions
- Specialized programmed maintenance

Over the last year (2023) Mitsubishi Electric received and handled more than 1500 calls and more than 2400 e-mail requests.

MELIS PROGRAMMED MAINTENANCE

A MELIS Specialised Programmed Maintenance contract offers a preferential channel for members and a targeted plan of maintenance interventions that reduces accidental faults. It also guarantees priority for extraordinary technical intervention at advantageous rates, ensuring a personalized service in line with your specific needs as well as fulfilment of all regulatory obligations to avoid the risk of administrative sanctions.

AMELIS Specialised Programmed Maintenance contract protects your customer's investment not just through plant maintenance but also by ensuring its duration over time and optimum yield.

Regulatory and legislative compliance: MELIS Specialised Programmed Maintenance includes registration in the ministerial F-GAS Database in compliance with Italian Pres. Decree 146/2018 as implemented in European Regulation EU 517/2014; automatic drafting of intervention reports to document completion of obligatory maintenance as required in the regulations in force;

- a compilation service for the Air Conditioning System Logbook for MELIS customers in compliance with Italian Pres. Decree 74/2013, Art. 7, Par. 5

- with automatic drafting of reports documenting completion

MELCloud COMMERCIAL

A new cloud platform has been established for new or existing systems of small, medium, or large dimensions. This enables control, optimization, and supervision of plants with dedicated functions and contracts for final users, maintenance providers, or general contractors.

Cloud technology enables remote management, energy monitoring, and system maintenance using PCs, smartphones, or tablets running the iOS or Android operating systems. The platform provides monitoring of electric energy consumption, adjustment of operating temperature and mode, and handling of system alarms and errors, thus providing all the necessary instruments for optimizing energy consumption. It is also possible to view the operating parameters of system components for remote diagnostics.

RENTAL

Mitsubishi Electric's RENTAL service was established to satisfy the demand for short-term air conditioning needs in contexts like trade fairs, events, or specific customer requirements.

A skilled staff and fleet of chiller or heat pump machines always on hand enables Mitsubishi Electric to offer the best temporary hire options. The Mitsubishi Electric organization is capable of supplying all necessary accessories for implementing hired systems, as well as on-site delivery, installation, and final collection in an all-inclusive service capable of satisfying any particular customer needs.



Mitsubishi Electric Europe B.V. Italian Branch

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The equipment described in this catalogue contain fluorinated HFC gasses with a GWP >1.
Installation of those equipment must be executed by professional installer based on EU reg. 303/2008 and 517/2014

**BROCHURE ME CLIMATIZZAZIONE (EXPORT)
E-2402278 (18512)**

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