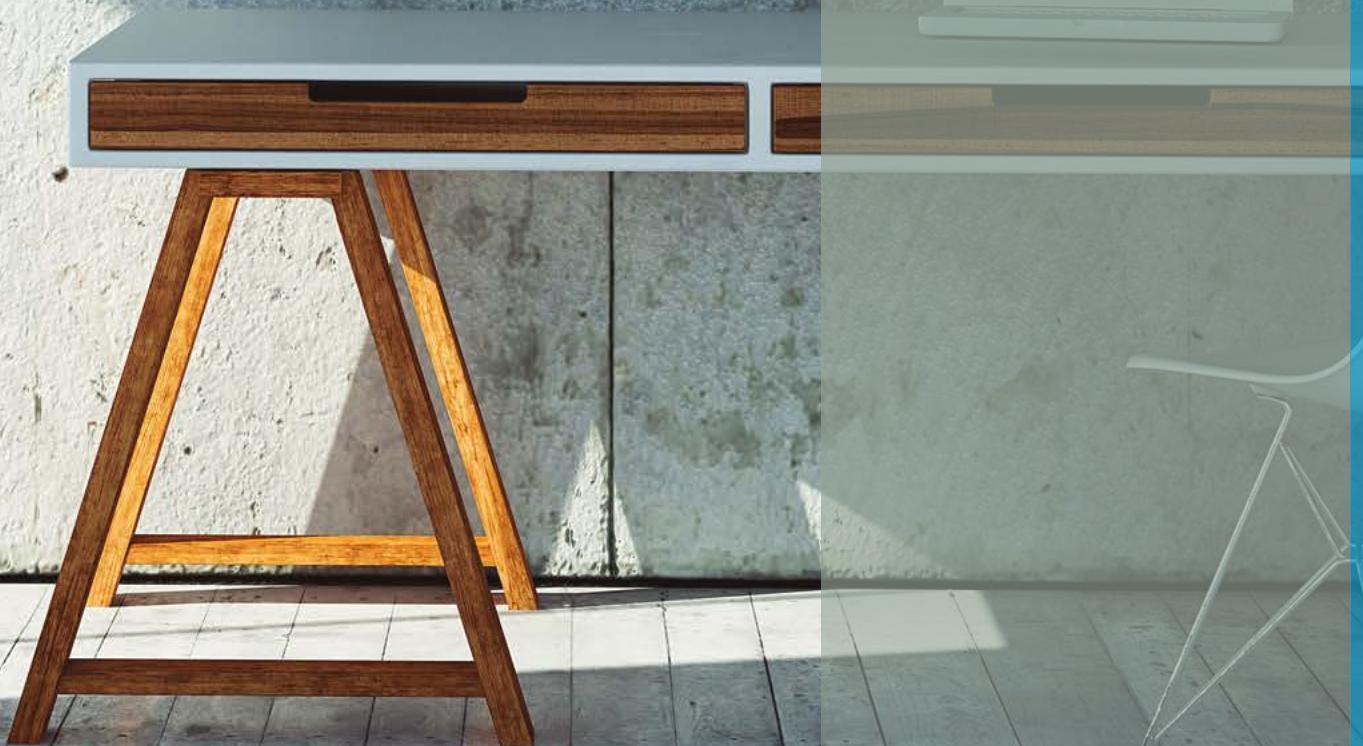
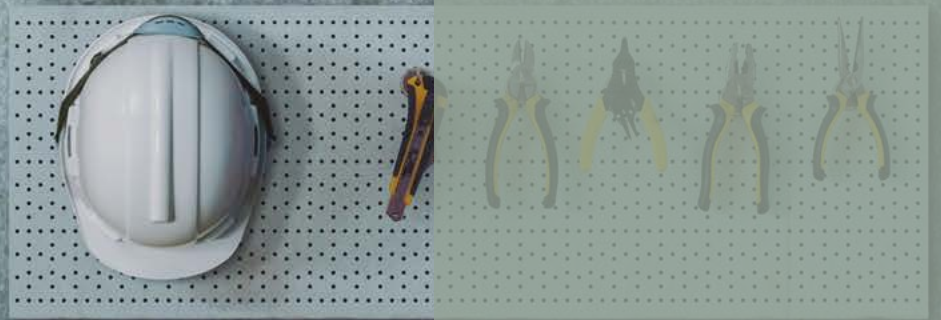


# Panasonic

## GENERAL CATALOGUE 2026 / 2027

TOTAL HVAC&R SOLUTION



heating & cooling solutions

## EDITORIAL



Panasonic – leading the way in Heating and Cooling. With 65 years of experience, selling to more than 120 countries around the world, Panasonic is one of the leaders in the heating and cooling sector.

### Bringing nature's balance indoors.

nanoe™ X, technology with the benefits of hydroxyl radicals that have the capacity to inhibit pollutants, viruses, and bacteria and deodorise.



## DOMESTIC



Panasonic has developed a range of domestic products designed for you and your clients.

### New Etherea with nanoe™ X technology.

Etherea features nanoe™ X technology, class-leading performance, intelligent features, and a stylish design. It is designed to make your home comfortable, clean and the ideal place to be.



## COMMERCIAL VRF SYSTEMS - ECOi AND ECO G



Panasonic provides an extensive range of solutions for medium and large sized buildings, combining the best options to satisfy all needs and site restrictions.

### Extended ECOi EX range R32. 2-Pipe MZ1 Series.

**New 3 Pipe MF4 Series.**  
Extreme efficiency, quality, compact. With advanced R32 refrigerant technology and optimised system design, this series offers a more sustainable solution compared to R410A.



## AQUAREA



Aquarea is a ground breaking low energy system for heating and domestic hot water production: delivering outstanding performance, even at extreme outdoor temperatures.

### Big Aquarea T-CAP M Series, for centralised heating and DHW.

The Big Aquarea M Series offers a flexible, compact and energy efficient solution for central heating and/or domestic hot water installations in multi-family or commercial buildings.



## COMMERCIAL AIR TO AIR – PACi NX



The commercial range is continuously being improved to offer the optimal solutions. High performance, silent operation and a wide range of indoor units and connectivity available.

### New multi zone duct.

Experience efficient and comfort climate control, offering individual temperature management for each zone. Its flexible design supports up to 5 zones, ensuring adaptability for various layouts. Installation is simple and effective, with built-in Wi-Fi enabling smart control for maximum convenience.



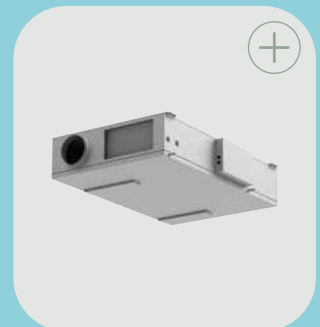
## VENTILATION



Panasonic ventilation solutions for maximum savings and easy integration.

### Energy recovery ventilation.

Panasonic energy recovery ventilations (ERV) help to improve your comfort and energy saving plan. Introducing the ERV with DX coil - HRPT Series, specifically designed for commercial applications or collective residential buildings, offering highly efficient heat recovery.



## CONTROL AND CONNECTIVITY



From the individual remote controller for the residential single units up to the newest technology capable of controlling your building anywhere in the world.

### Commercial Smart Edge.

Manage the entire Panasonic HVAC portfolio from a single platform – on-site or remotely, 24/7.



## CHILLERS AND HEAT PUMPS, AND WATER SOURCE HEAT PUMPS - ECOi-W



Panasonic solutions to suit a variety of commercial and industrial applications. Our systems provide the optimal performance in any climatic condition.

### ECOi-W AQUA-G EVO R290.

#### Unmatched innovation.

ECOi-W AQUA-G EVO with Inverter technology and natural refrigerant R290. Combine efficiency and comfort in one compact package.



## FAN COIL UNITS



Stylish, premium units for residential projects with a sophisticated, compact design and customizable, flexible units for commercial applications.

### Flex Air Smart fan coil – Wall-mounted.

The Flex Air Smart fan coil – Wall-mounted with modern, stylish design comes with the nanoe™ X technology (Generator Mark 3) for improved indoor air quality. It is ideal for both residential and commercial applications.



## ROOFTOPS



Rooftop units provide air-based cooling and heating for commercial buildings to ensure thermal comfort and proper indoor air quality (IAQ) through ventilation.

### ECOi-RT.

With Rooftop units, you get a complete compact and mono-bloc solution to heat and cool large buildings such as shopping centers, industries or airports that need high capacities. It is an easy to install, space saving solution, directly on the roof or close to a building.



## REFRIGERATION



Moving to more sustainable refrigeration solutions – iCO2RE and iCOOL ranges, offering a complete line of cooling solutions using CO<sub>2</sub>, A2L, and HFC/HFO refrigerants.

### iCO2RE range - CO<sub>2</sub> at the core of innovative refrigeration.

Panasonic's iCO2RE range is a new generation of CO<sub>2</sub> condensing units, built on sustainability, energy efficiency, and flexibility. Using CO<sub>2</sub> – a natural refrigerant – iCO2RE supports today's environmental goals while delivering reliable, high-performance cooling.



## DIMENSIONS



## WIRING DIAGRAMS



#### Quality Management System Certificate



ISO 9001: 2015  
Panasonic Appliances Air-Conditioning  
Malaysia, Sdn.Bhd.  
Cert. No.: QMS 00413



GB/T 19001-2016/ISO 9001: 2015  
Panasonic Appliances Air-Conditioning  
(GuangZhou) Co., Ltd.  
Registration Number: 01218Q30835RBL

#### Environmental Management System Certificate



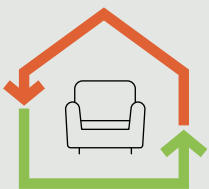
ISO 14001: 2015  
Panasonic Appliances Air-Conditioning  
Malaysia Sdn.Bhd.  
Cert. No.: EMS 00109



GB/T 24001-2016/ISO 14001: 2015  
Panasonic Appliances Air-Conditioning  
(GuangZhou) Co., Ltd.  
Registration Number: 02118E10944R7M

# Panasonic environmental vision 2050

To achieve “a better life” and “a sustainable global environment,” Panasonic will work towards creation and more efficient utilisation of energy which exceeds the amount of energy used, aiming for a society with clean energy and a more comfortable lifestyle.



## Energy used < Energy created

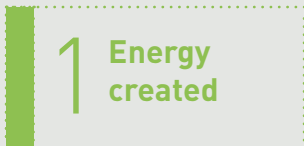
One initiative in the Panasonic environmental vision 2050 is offering products with greater energy efficiency. In 2018, we celebrated the 60th anniversary of our Heating & Cooling Solutions business. Our expertise gained over the years has helped us launch a range of products that contribute to a more carbon-free society.

### Current status of energy used and energy created

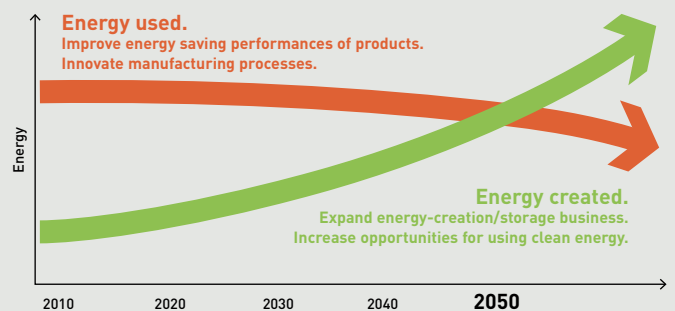
Energy used by Panasonic business activities and products.



Clean energy created and / or made available by Panasonic products, etc.



### Working to realise environmental vision 2050



# Heating and cooling solution with R290 natural refrigerant

Following Panasonic's Environmental Vision 2050, Panasonic presents an advanced, high-energy saving heating and cooling solution utilising the natural refrigerant R290 with a low GWP of 0,02. These solutions not only minimise environmental impact but also enhance energy efficiency and comfort in heating and cooling.



**Aquarea M and L Series (5 - 300 kW\*).**

**ECOi-W AQUA-G Series (50 - 880 kW\*).**

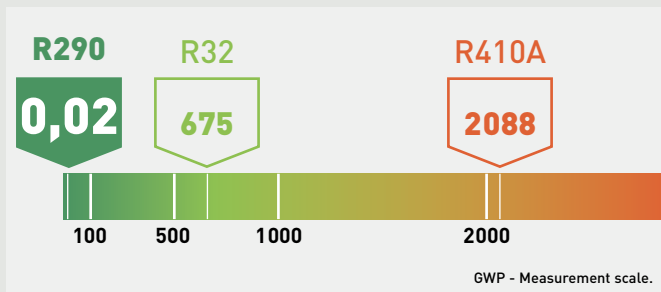
The R290 refrigerant technology has been integrated across a wide range of heating and cooling solutions, meeting both residential and commercial needs. These solutions are available in capacities from 5 to 880 kW\*.

\*Cascade control required.

## Contributing to the decarbonisation of society.

Natural refrigerant R290 has low Global Warming Potential (GWP) of just 0,02\* (R32:675 and R410A: 2088), helping reduce CO<sub>2</sub> emissions and environmental impact. It's a green alternative solution for any residential and commercial projects and delivers outstanding performance, aligning with Panasonic vision of a carbon-free society and our GREEN IMPACT plan.

\*GWP 0,02 (AR6). Based on the Sixth Assessment Report adopted by the Intergovernmental Panel on Climate Change (IPCC).



## Industry leading Panasonic technology with natural refrigerant R290.

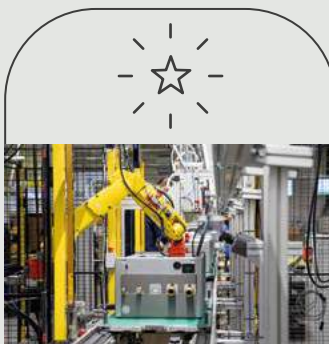
Panasonic's heating and cooling solution with R290 natural refrigerant, is not only a 'green solution' but also delivers outstanding performance to meet the demands of the most challenging projects. An ideal solution with high performance and quality, coupled with minimized environmental impact, making it a worthwhile investment for the future.



**High water outlet temperature up to 75 °C.**



**Quiet operation.**



**High quality, made in Europe.**

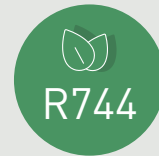


**Range from 5 to 80 kW, boost capacity up to 640 kW with a cascade control.**

\*The specification varies depending on the series. Please check the detailed information on each product page.

# Complete HVAC&R solutions powered by natural refrigerants

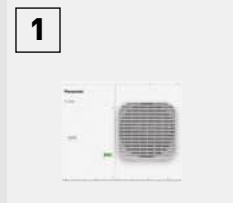
Delivering sustainable, high efficiency heating and cooling for future-ready grocery stores.



## iCO2RE CO<sub>2</sub> Series. iCO<sub>2</sub>RE

Reliable, flexible refrigeration for low and medium temperatures – showcases and cold rooms.

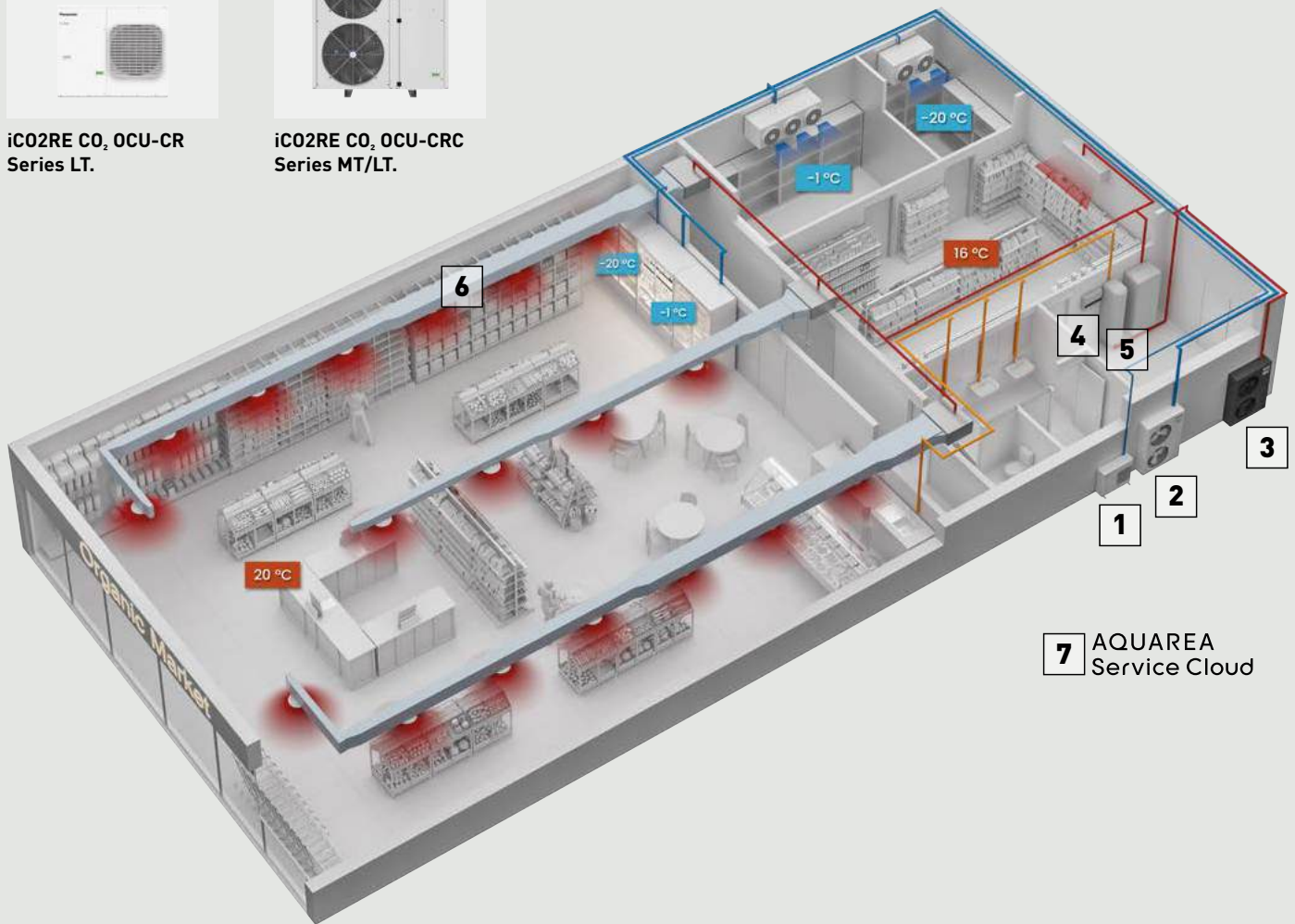
**Food safety, better air quality by nanoe™ X. Supports Food Safety (HACCP Certified) and inhibits mould, bacteria and viruses. No maintenance required.**



**1** iCO2RE CO<sub>2</sub> OCU-CR Series LT.



**2** iCO2RE CO<sub>2</sub> OCU-CRC Series MT/LT.



**7** AQUAREA Service Cloud

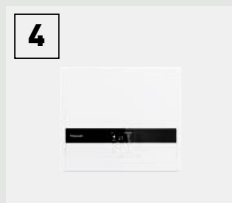
## Aquarea M Series.

- Up to A+++ energy rated – comfort heating and cooling to 300 kW
- Maximum 75 °C water outlet temperature

AQUAREA



**3** Big Aquarea T-CAP M Series.



**4** M Series control module.



**5** High-efficiency DHW tank.



**6** Ducted fan coil with nanoe™ X built-in.



**7** Aquarea Service Cloud – remote monitoring and maintenance.

# Your partner for service and maintenance operations

Reliable operation is essential for ensuring comfort, energy efficiency, and long-term system durability. Our comprehensive service and maintenance solutions are designed to support you throughout the entire lifecycle of your installation.



 <b>RELIABLE COMMISSIONING</b>	 <b>PROFESSIONAL MAINTENANCE</b>	 <b>EFFICIENT REPAIR</b>	 <b>FULL CUSTOMER SUPPORT</b>	 <b>GUARANTEED WARRANTY</b>
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Our European service network delivers fast, expert support on-site or remotely through certified technicians and IoT monitoring. With a minimum of 10 years of original spare-parts availability and advanced tools, long-term performance is ensured.

## The benefits of a regular maintenance.

### Preventive maintenance.

Keep the unit healthy.

### Predictive maintenance.

Prevent failures early.

### Corrective maintenance.

Act fast when issues occur.

<b>1</b> <hr/> Maximize energy efficiency and reduce energy bills.	<b>2</b> <hr/> Reduced operating costs by minimizing unexpected failures.	<b>3</b> <hr/> Extend equipment life with timely inspections.	<b>4</b> <hr/> Improved reliability and comfort even during peak seasons.
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## Comprehensive maintenance solution for end users and professionals.

### AQUAREA Service+

#### Maintenance package to support your business.

With Aquarea Service+ packages\*, you get remote monitoring and expert maintenance for reliable, uninterrupted heat pump operation.

\*Availability varies according to the countries.




#### Service and maintenance tools for professionals.

Save time and reduce project costs with Panasonic's remote control and maintenance tools, for system setup, monitoring, diagnostics and failure alerts.

## Case studies

Panasonic, your partner with the knowledge and experience to realize your projects, both at the national and international levels, implementing them on time and within budget. Solutions that not only cut costs but are also efficient, climate-friendly, user-friendly, reliable, and innovative.



**Arctic Treehouse Hotel.**  
Rovaniemi, Lapland, Finland.  
**Power Heat Multi.**

The multi system for extremely cold weather is installed in the cosy Arctic Glasshouse to ensure comfort and air quality in the lounge and 2 bedrooms of the cabin on the coldest days.



**Single family house.**  
Höllviken, Sweden.  
**Aquarea with natural refrigerant R290.**

Aquarea L Series with R290 replaced an old heating system, providing comfort in cold weather and reducing energy costs. Being connected to the Aquarea Service Cloud, the heat pump can be monitored remotely by a service company.



**Weinbuch Butcher's Shop.**  
Shop - Restaurant.  
Öpfingen, Germany.  
**VRF, Domestic and Refrigeration.**

The entire meat production cold rooms are equipped with Panasonic CO<sub>2</sub> condensing units, and ECOi EX systems for cooling and a part of the heating for areas such as the Bistro, production facility, and Drive-in stations.



**Panasonic air to water heat pumps factory.**  
Pilsen, Czech Republic.  
**VRF, Rooftop and Chillers.**

This project combines high-efficient ECOi EX, ECOi-RT, ECOi-W, Air Handling Unit connections, and fan coils delivering capacity up to 4800 kW to heat and cool production, testing, and administrative areas with maximum reliability and flexibility across the facility.

As a global company, Panasonic offers European coverage for support, providing financial, logistical, and technical resources to develop comprehensive and wide-ranging solutions at both national and international levels. This ensures timely and budget-conscious implementation.



Passivhouse in Miño.  
Residential passive house.  
Miño, Spain.  
**Aquarea.**



Pervalkos Jūra.  
Residential.  
Pervalka, Lithuania.  
**Aquarea.**



Crosslight House.  
Residential building.  
Mulazzano, Italy.  
**PACi and nanoe™ X.**



Varna Wave Building.  
Residential building.  
Varna, Bulgaria.  
**Aquarea and Panasonic Comfort Cloud App.**



Gutenfels.  
Hotel.  
Kaub, Germany.  
**Aquarea and Panasonic Comfort Cloud App.**



Maison Tirel Guerin.  
Hotel- Restaurant.  
Saint Méloir-des- Ondes, France.  
**Mini ECOi.**



South Lodge.  
Luxury 5 star Hotel and Spa.  
West Sussex, United Kingdom.  
**PACi, Control and nanoe™ X.**



Gurewicz Spa Resort.  
Hotel- Restaurant - Spa.  
Otwock, Poland.  
**PACi, VRF and Control.**



Hotel Moxy Oriente.  
Hotel.  
Lisboa, Portugal.  
**PACi, VRF and Control.**



Thon Hotel Harstad.  
Hotel.  
Harstad, Norway.  
**PACi, VRF and Refrigeration.**



AirHop.  
Indoor adventure and trampoline park.  
Gloucester, United Kingdom.  
**PACi and Jet Air Stream.**



Hungarian Cédrus Liget. A complex facility including apartments, offices and commercial units.  
Szeged, Hungary.  
**ECOi-W, ECOi and ERV.**



Belfast Grand Opera House.  
Public building.  
Belfast, United Kingdom.  
**PACi, VRF and Control.**



Amandiers.  
Sports complex.  
Carrierre sur Seine, France.  
**ECOi-W.**



Public school.  
Białystok, Poland.  
**ECOi-W AQUA-G BLUE.**



Stemcell Technologies.  
Global biotechnology company.  
Saint-Egrève, France.  
**Refrigeration.**

# A desire to create things of value

“Recognising our responsibilities as industrialists, we will devote ourselves to the progress and development of society and the well-being of people through our business activities, thereby enhancing the quality of life throughout the world.”

Panasonic Corporation’s Basic Management Objective, formulated in 1929 by the company’s founder, Konosuke Matsushita.



**1958**  
First room air conditioner launched for domestic installation.

**1975**  
Panasonic becomes one of the first Japanese air conditioner manufacturers in Europe.

**1985**  
Introduces first GHP (gas heat pump) VRF air conditioner.

**2008**  
World’s first air conditioner equipped with nanoe™.

**2015**  
CO<sub>2</sub> condensing units in Europe. The ideal solution for supermarkets, shops and gas stations.

**1971**  
Starts production of absorption chillers.

**1982**  
Panasonic launches the first highly efficient air to water heat pump in Japan.

**1989**  
Introduces world’s first simultaneous 3-Pipe heating / cooling VRF System.

**2010**  
New Aquarea. Panasonic introduces Aquarea, an innovative new, low-energy system in Europe.

**2012**  
New Panasonic GHP units. The gas-driven VRF Systems are ideal for projects where power restrictions apply.

**2016**  
New VRF Systems ECOi EX with extraordinary energy saving performance.



# Vitalize the future with air

## These are times of exceptional challenge.

If the world is to move forward confidently, it must overcome the serious threats of the new global pandemics and the degrading of the environment. It must find ways large and small to reduce the stresses that affect people's health and the stability of their communities.

At Panasonic, we're utilizing the power of air to create positive change.

Air that benefits body and mind.

Air that energizes the places where people gather to work and play.

Air that reduces our burden on the Earth.

With more than a century of research and expertise to guide us, we're using air to open a more hopeful and vital future for all.



**2018**

The first Hybrid System with VRF and GHP in Europe.

— Opening heat pump production line in Czech Republic, Europe.

**2020**

nanoe™ X, technology with the benefits of hydroxyl radicals. Improving protection 24/7. Built-in nanoe™ X technology expanded to commercial solutions.

**2022**

ECOi-W R32, the new range of low GWP chiller solutions to suit a variety of commercial and industrial applications.

**2024**

ECOi-W AQUA-G BLUE. Air to water reversible heat pumps. Powered by R290, a natural refrigerant.

— Collaboration with key partners.

**2026**

Introduction of iCO2RE and iCOOL commercial refrigeration ranges in Europe.

**2019**

Panasonic introduces a new Chiller Series which is named as ECOi-W.

**2021**

Mini VRF R32 up to 10 HP. Outstanding efficiency in a compact body.

— A2W maintenance.

**2023**

Aquarea Heat Pumps with natural refrigerant R290.

— The first European for hydronics products.

**2025**

Aquarea Heat Pumps + tado°, the integrated solution for maximum energy savings and comfort.

— The first commercial refrigeration factory in Wroctaw, Poland.

Looking ahead



# Panasonic HVAC&R solution map

HYDRONIC



## AQUAREA. Air to water heat pumps.

Peripherals: Fan coil units / Water Loop heat pumps / DHW Heat Pump / Hot water tanks / Smart solutions and connectivity / Room control.

5 kW - 30 kW (up to 300 kW with a cascade controller)



SINGLE HOMES



MULTI-FAMILY HOMES



LIGHT COMMERCIAL

2 kW - 7,1 kW

DIRECT EXPANSION



## ETHEREA & More. Domestic air to air heat pumps.

Peripherals: Wi-Fi control and connectivity.

2,5 kW - 25 kW



## PACi NX. Light commercial air to air heat pumps.

Peripherals: Air to air indoor units / Low temperature configuration / Water Heat Exchanger.



VENTILATION

90 m<sup>3</sup>/h - 455 m<sup>3</sup>/h





## Residential ventilation.

Peripherals: Air distribution solutions / Wi-Fi control and connectivity.

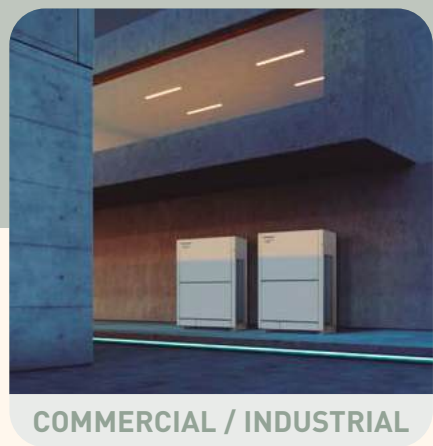


Panasonic offers a wide range of HVAC&R solutions for various applications, from residential and multi-family homes to commercial buildings and specialised applications such as data centres and refrigeration. Each range delivers highly efficient and reliable performance, meeting the needs of every application.





  **ECOi-W. Commercial chiller and heat pump.**  
Peripherals: Fan coil units / Water source heat pumps / Connectivity.  
20 kW - 1550 kW

 **TECNAIR\*. Close Control.**  
10 kW - 500 kW





COMMERCIAL / INDUSTRIAL



63 kW - 197 kW

 **ECOi-RT. Commercial Rooftop.**  


4 HP - 80 HP

 **ECOi. Commercial VRF.**  
Peripherals: Air to air indoor units / Water Heat Exchanger / Connectivity.  


150 m<sup>3</sup>/h - 40000 m<sup>3</sup>/h

 **Commercial ventilation.**  
Energy recovery ventilation with DX / Air curtains / AHU connection kit.  






DATA CENTRE



REFRIGERATION

MT: 2,5 - 42,0 kW, LT: 1,2 - 15,0 kW

 **iCO2RE / iCOOL. Commercial refrigeration.**  


SERVICE AND MAINTENANCE

# Bringing nature's balance indoors



nanoe™ X, technology with the benefits of hydroxyl radicals.

In today's health-conscious world, we care about taking exercise, we care about what we eat and what we touch, we also care about what we breathe – and technology exists to bring good outdoor air, indoors.



Cumulative global shipments of nanoe™ and nanoe™ X devices exceed 100 million units\*

\*From July 2024, the results apply to all other products with nanoe™ and nanoe™ X devices, including heating and cooling.



Abundant in nature, hydroxyl radicals (also known as OH radicals) have the capacity to inhibit pollutants, viruses, and bacteria to clean and deodorise. nanoe™ X technology can bring these incredible benefits indoors so that hard surfaces, soft furnishings, and the indoor environment can be a cleaner and more pleasant place to be, whether at home, work, or visiting hotels, shops and restaurants etc.

## A naturally occurring process

Hydroxyl radicals are unstable molecules looking to react with other elements like hydrogen, capturing it. Thanks to this reaction, hydroxyl radicals have the potential to inhibit the growth of pollutants such as bacteria, viruses, moulds, and odours, breaking them down and neutralising the unpleasant effects. This naturally occurring process has major benefits to improve indoor environments.



Hydroxyl radicals in nature.

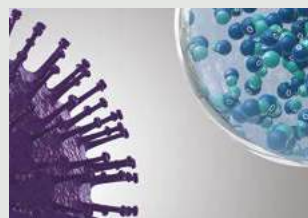


Hydroxyl radicals contained in water.

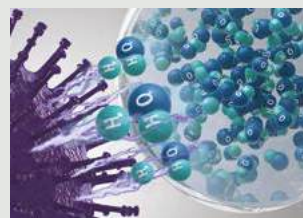
By creating hydroxyl radicals contained in water, nanoe™ X technology significantly boosts their effectiveness, increasing hydroxyl radicals lifetime from less than a second in nature, to more than 600 seconds – 10 minutes so that nanoe™ X can spread easily around the room.

## Panasonic's nanoe™ X technology takes this a step further and brings nature's detergent – hydroxyl radicals – indoors to help create an ideal environment

Thanks to the nanoe™ X properties, several types of pollutants can be inhibited such as certain types of bacteria, viruses, mould, allergens, pollen and certain hazardous substances.



1 | nanoe™ X reliably reaches pollutants.



2 | Hydroxyl radicals denature pollutants' proteins.



3 | Pollutants activity is inhibited.

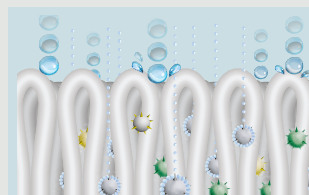
## The well-being benefits of nature are well known – but do you know the power of hydroxyl radicals?

### What is unique about nanoe™ X?

Hydroxyl radicals inhibit pollutants, certain types of viruses, and bacteria to clean and deodorise. Thanks to this advanced technology, even tightly woven fabrics can be treated using this solution, meaning that curtains, blinds, carpets and furniture can all benefit from this technology to inhibit hazardous substances – including on hard surfaces and, of course, the air that we breathe.



#### Effective on fabrics and surfaces.



1 | At one billionth of a metre, nanoe™ X is much smaller than steam and can deeply penetrate cloth fabrics to deodorise.

#### Longer lifespan.



2 | Contained in tiny water particles, nanoe™ X has a long lifespan, which is about 600 seconds, to spread easily around the room.

#### Huge quantity.



3 | nanoe X Generator Mark 3 produces 48 trillion hydroxyl radicals per second. Greater amounts of hydroxyl radicals contained in nanoe™ X lead to higher performance on inhibition of pollutants.

#### Maintenance-free.



The image shows nanoe X Generator Mark 3.

4 | No service and maintenance required. nanoe™ X is a filter free solution that does not require maintenance, as its atomisation electrode is enveloped with water during its generation process and it is made with Titanium.

### 7 effects of nanoe™ X – Panasonic unique technology

#### Deodorises



Odours

#### Capacity to inhibit 5 types of pollutants



Bacteria and viruses



Mould



Allergens



Pollen



Hazardous substances

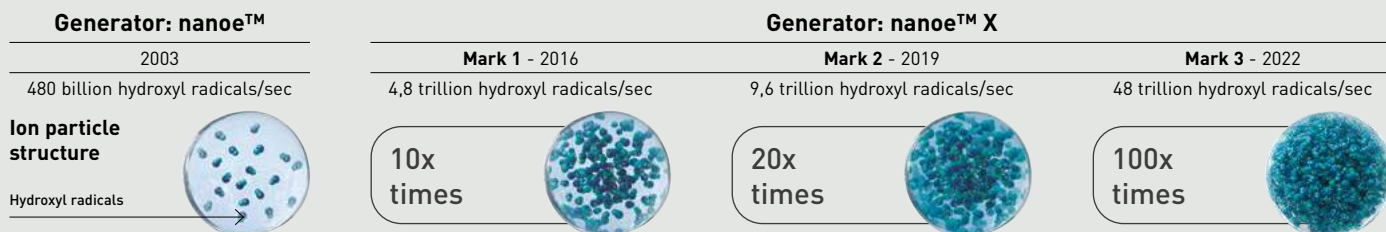


Skin and hair

\*Refer to <https://aircon.panasonic.eu> for more details and validation data.

### First nanoe™ device was developed by Panasonic in 2003

Introducing nanoe X Generator Mark 3, the latest of the continuously evolving nanoe™ X technology, it has the largest amount of hydroxyl radical in the history of nanoe™ (48 trillion hydroxyl radical per second, 100 times the traditional nanoe™). The increased number of hydroxyl radical, which are the key to nanoe™ effectiveness, means you can expect an even higher level of performance.



nanoe™ X, internationally-validated technology in testing facilities.

The effectiveness of nanoe™ X technology has been tested by 3rd party laboratories in Germany, France, Denmark, Japan and China.

The nanoe™ X performance varies depending on the room size, environment and usage and it may take several hours to reach the full effect. nanoe™ X is not medical device, local regulations on building design and sanitary recommendations must be followed. Test results conducted under controlled laboratory conditions. Performance of nanoe™ X might differ in real life environment.


**Panasonic heat pump with nanoe™ X technology verified against SARS-CoV-2**

Virus SARS-CoV-2: 91,4% inhibited. Test conducted by TEXCELL (France), using a gauze saturated with SARS-CoV-2 virus solution exposed to Panasonic heat pump with nanoe™ X in a space of 6,7 m<sup>3</sup> over 8 hours. Test report: 1140-01 C3. Performance of nanoe™ X might differ in real life environment.

	Tested contents	Generator	Result	Capacity	Time	Testing organisation	Report No.	
Airborne	Virus	Influenza [H1N1]	Mark 2	98,3% inhibited	30 m <sup>3</sup>	1,5 h	China Electronic Product Reliability and Environmental Testing Research Institute	J2003WT8888-00889
		Bacteriophage ΦX174	Mark 1	99,2% inhibited	Approx. 25 m <sup>3</sup>	6 h	Kitasato Research Center for Environmental Science	24_0300_1
	Bacteria	Staphylococcus aureus	Mark 1	99,7% inhibited	Approx. 25 m <sup>3</sup>	4 h	Kitasato Research Center for Environmental Science	24_0301_1
Adhering	Virus	SARS-CoV-2	Mark 1	91,4% inhibited	6,7 m <sup>3</sup>	8 h	Texcell (France)	1140-01 C3
		SARS-CoV-2	Mark 1	99,9% inhibited	45 L	2 h	Texcell (France)	1140-01 A1
		Bacteriophage ΦX174	Mark 1	99,8% inhibited	Approx. 25 m <sup>3</sup>	8 h	Japan Food Research Laboratories	13001265005-01
		Xenotropic murine leukemia virus	Mark 1	99,999% inhibited	45 L	6 h	Charles River Biopharmaceutical Services GmbH	—
		Coxsackie virus [CA16]	Mark 2	99,9% inhibited	30 m <sup>3</sup>	4 h	China Electronic Product Reliability and Environmental Testing Research Institute	J2002WT8888-00439
		Bacteriophage	Mark 3	98,81% inhibited	Approx. 139,3 m <sup>3</sup>	4 h	SGS Inc	SHES210901902584
		MS2 Phage Virus	Mark 3	99,99% inhibited	Approx. 25 m <sup>3</sup>	2 h	Shokukanken, Inc.	227131N
	Bacteria	Staphylococcus aureus	Mark 1	99,9% inhibited	20 m <sup>3</sup>	8 h	Danish Technological Institute	868988
	Pollen	Cedar pollen	Mark 3	99% inhibited	Approx. 24 m <sup>3</sup>	12 h	Panasonic Product Analysis Center	H21YA017-1
		Ambrosia pollen	Mark 1	99,4% inhibited	20 m <sup>3</sup>	8 h	Danish Technological Institute	868988
	Odours	Cigarette smoke odour	Mark 1	Odour intensity reduced by 2,4 levels	Approx. 23 m <sup>3</sup>	0,2 h	Panasonic Product Analysis Center	4AA33-160615-N04
Mark 3			Odour intensity reduced 1,7 levels	Approx. 139,3 m <sup>3</sup>	0,5 h	SGS Inc	SHES210901902478	


Meets the requirements of VDI 6022 and HACCP

Certified under VDI 6022, meeting one of the strictest hygiene requirements on the market for HVAC systems, and aligned with HACCP-based food-safety practices.




**VDI 6022 – Part 5<sup>1)</sup> Certification.**

**Avoidance of allergenic exposure.**  
Inhibits a wide range of harmful bacteria, viruses, mould, pollen and allergens.



**VDI 6022 – Part 1<sup>1)</sup> & 1.1<sup>2)</sup> Certification.**

**Ventilation and indoor-air quality.**  
Panasonic nanoe™ X technology improving indoor air quality.



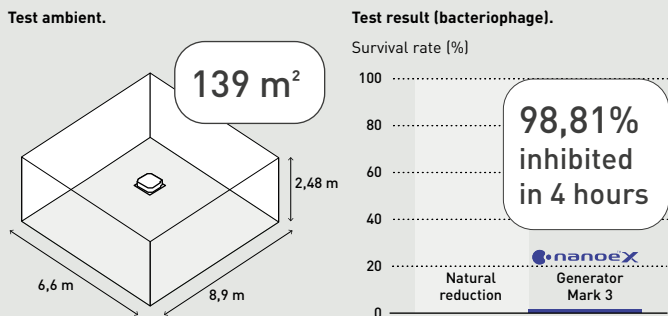
**HACCP Food Safety Certified<sup>3)</sup> – Europe's first HVAC manufacturer.**

1) Certification mark only valid for nanoe X Generator Mark 3. 2) Certification mark only valid for nanoe X Generator Mark 2 and Mark 3. 3) Applicable to PACi NX and ECOi indoor units equipped with nanoe X Generator Mark 3.

Effectiveness in large space with Generator Mark 3

**Inhibits virus.**

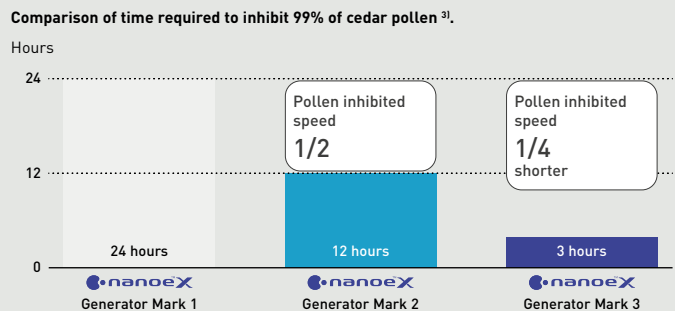
An air conditioner equipped with nanoe X Generator Mark 3 inhibits activity of adhered virus (Bacteriophage) by 98,81% in 4 hours<sup>1)</sup>.



**Inhibits pollen.**

The result of nanoe X Generator Mark 3.

Inhibits pollen in 1/4 the time of nanoe X Generator Mark 2<sup>2)</sup>.



1) Testing organisation: SGS Inc / Test subject: Adhered Bacteriophage / Test volume: Approx. 139 m<sup>3</sup> large space [6,6 x 8,9 x 2,48 m]. Test result: Inhibited 98,81% in 4 hours. Test report no.: SHES210901902584.  
 2) Effect after 3 hours in a test space of approx. 24 m<sup>3</sup>. The figures are not the results of testing in an actual operating space. 3) nanoe X Generator Mark 1: [Testing organisation] Panasonic Product Analysis Center [Test method] ELISA method of measuring allergens adhering to fabric in a test room [approx. 24 m<sup>3</sup>] [Method of inhibition] Release of nanoe™ [Target] Adhered allergen [cedar pollen] [Test Result] Inhibition of 99% or more in 24 hours [4AA33-151001-F01]. nanoe X Generator Mark 2: [Testing organisation] Panasonic Product Analysis Center, [Test method] ELISA method of measuring allergens adhering to fabric in a test room [approx. 24 m<sup>3</sup>] [Method of inhibition] Release of nanoe™ [Target] Adhered allergen [cedar pollen] [Test Result] Inhibition of 99% or more in 12 hours confirmed [L19YA009]. nanoe X Generator Mark 3: [Testing organisation] Panasonic Product Analysis Center [Test method] ELISA method of measuring allergens adhering to fabric in a test room [approx. 24 m<sup>3</sup>] [Method of inhibition] Release of nanoe™ [Target] Adhered allergen [cedar pollen] [Test Result] Inhibition of 99% or more in 3 hours [H21YA017-1].

## Where is nanoe™ X technology used?

Since 2003, nanoe™ has become a part of people's lives in Japan and other regions.

Such technology can be found in diverse applications for cleaning air and surfaces, inside trains, elevators, cars, home appliances and personal beauty ... as well as in air conditioning.

Panasonic Heating & Cooling Solutions is incorporating nanoe™ technology in a wide range of equipment for residential applications as well as for commercial spaces and, it is a solution that does not require filters or maintenance and can work independently from heating or cooling.



Home



Shop



Gym



Hotel



Office



Clinic



Restaurant



Hospital

It has been adopted in people's homes as well as in public facilities where improved air quality is desired, such as offices, hospitals, healthcare centres and hotels etc.

## Panasonic Heating & Cooling Solutions is incorporating nanoe™ technology in a wide range of equipment

### Home.

Built-in nanoe X Generator Mark 3.



**Wall-mounted Etherea.**  
CS-XZ\*\*ZKEW-H.  
4 capacities: 2,0 - 4,2 kW.  
CS-XZ\*\*ZKEW.  
4 capacities: 2,0 - 5,0 kW.  
CS-(M)Z\*\*ZKE(W).  
7 capacities: 1,6 - 7,1 kW.



**RAC Solo.**  
P-MO\*\*\*6IC5A-E.  
4 capacities: 1,7 - 3,0 kW.

Built-in nanoe X Generator Mark 2.



**Aquarea EcoFlex ducted unit.**  
S-71WF3E.

Built-in nanoe X Generator Mark 1.



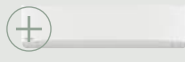
**Wall-mounted TZ super-compact.**  
CS-(M)TZ\*\*ZKE(W).  
8 capacities: 1,6 - 7,1 kW.



**Floor console.**  
CS-Z\*\*UFEAW.  
4 capacities: 2,0 - 5,0 kW.

### Commercial.

PACi NX. Built-in nanoe X Generator Mark 3.



**Wall-mounted - PK4.**  
S-\*\*\*PK4E.  
5 capacities: 3,6 - 10,0 kW.



**High static pressure hide-away.**  
S-\*\*\*PE4E.  
2 capacities: 20,0 and 25,0 kW.

PACi NX. Built-in nanoe X Generator Mark 2.



**4 way 60x60 cassette - PY3.**  
S-\*\*\*PY3E.  
4 capacities: 2,5 - 6,0 kW.



**Ceiling - PT3.**  
S-\*\*\*PT3E.  
7 capacities: 3,6 - 14,0 kW.



**Adaptive ducted unit - PF3.**  
S-\*\*\*PF3E.  
7 capacities: 3,6 - 14,0 kW.

PACi NX. Built-in nanoe X Generator Mark 1.



**4 way 90x90 cassette - PU3.**  
S-\*\*\*PU3E.  
7 capacities: 3,6 - 14,0 kW.

Flex Air Smart fan coils. Built-in nanoe X Generator Mark 3.



**Fan coil wall-mounted - FK1.**  
S-\*\*FK1E.  
6 capacities: 1,9 - 5,2 kW.



**Fan coil medium static duct - FF1.**  
S-\*\*\*FF1E.  
7 capacities: 2,3 - 9,3 kW.

VRF. Built-in nanoe X Generator Mark 3.



**U2 type 4 way 90x90 cassette.**  
S-\*\*\*MU2E5C.  
11 capacities: 2,2 - 16,0 kW.



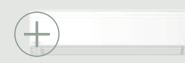
**Y3 type 4 way 60x60 cassette.**  
S-\*\*\*MY3EB.  
6 capacities: 1,5 - 5,6 kW.



**F3 type adaptive duct.**  
S-\*\*\*MF3E5D.  
12 capacities: 1,5 - 16,0 kW.



**M2 type hide-away.**  
S-\*\*\*MM2EB.  
7 capacities: 1,0 - 5,6 kW.



**K3 type wall-mounted.**  
S-\*\*\*MK3E.  
8 capacities: 1,5 - 10,6 kW.



**P2 type floor-standing.**  
S-\*\*\*MP2E5.  
6 capacities: 2,2 - 7,3 kW.



**R2 type concealed floor-standing.**  
S-\*\*\*MR2E5.  
6 capacities: 2,2 - 7,3 kW.

VRF. Built-in nanoe X Generator Mark 1.



**G1 type floor console.**  
S-\*\*\*MG1E5N.  
5 capacities: 2,2 - 5,6 kW.

Ventilation. Built-in nanoe X Generator Mark 1.



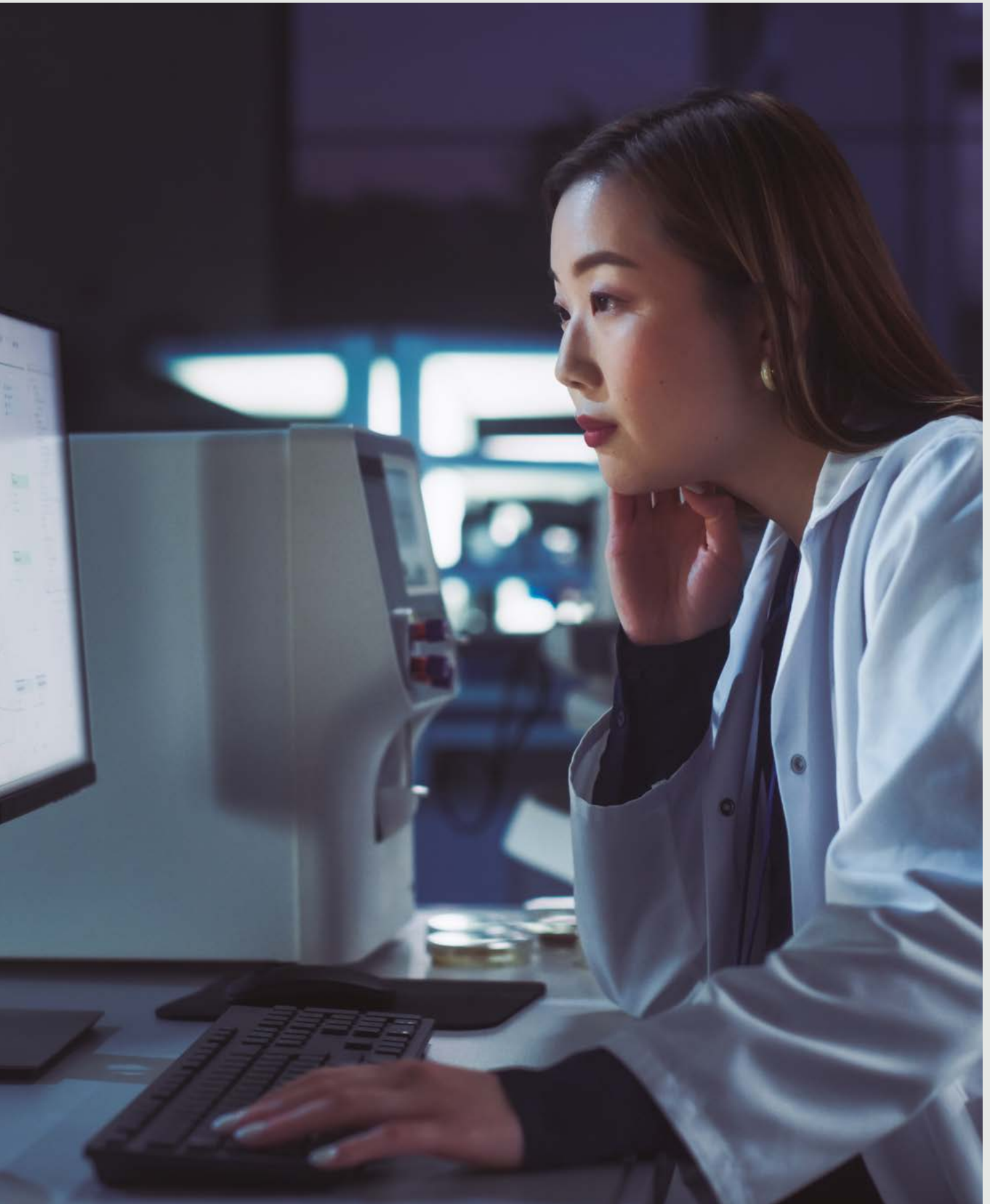
**Ceiling mounted air-e.**  
FV-15CSD1G.  
1 capacity.

nanoe™ X: improving protection 24/7

## 100% Panasonic, the DNA of Japanese craftsmanship

Applying advanced technologies that truly make life better, we live by an unparalleled commitment to product quality.

Panasonic is building on the Japanese tradition of uncompromising quality control worldwide, developing and manufacturing fine products and delivering them to customers everywhere.



At Panasonic, we believe that the best air conditioner is one that works quietly and effectively in the background whilst minimising its impact on the environment.

People who use our products can look forward to long years of high-quality performance without the need for constant service. As part of our rigorous design and development process, Panasonic air conditioners undergo a variety of stringent tests to ensure their effectiveness and long-term reliability. Tests for durability, waterproofing, shock resistance, and noise are conducted on component parts or on the finished products themselves.

As a result of all of these time consuming efforts, Panasonic air conditioners meet industrial standards and regulations in every country where they are sold.

### International Standard Quality

To uphold the company's reputation around the world, Panasonic strives continuously to offer quality with minimized environmental impact.



#### Reliable parts that meet or exceed industrial standards.

In every country where they are sold, Panasonic air conditioners comply with all required industrial standards and regulations. In addition, Panasonic conducts stringent testing to ensure the reliability of parts and materials. The strength of the resin material used in a propeller fan is confirmed by a tension test.



#### Compliance with RoHS / REACH substance restrictions.

Panasonic products and used materials strictly comply with chemical substance restrictions as defined by RoHS or REACH. During the development and production of parts, stringent inspections are conducted on over 100 materials to ensure that no hazardous substances are included.



#### Sophisticated production process.

Panasonic's air conditioner production lines employ state-of-the-art factory automation technologies to ensure products are manufactured with high attention to quality to meet expectations of reliability and trustworthiness.

### Durability

At Panasonic we know the importance of a long service life with minimal maintenance. That's why we subject our air conditioners to a wide range of stringent durability tests.



#### Long-term durability test.

To ensure durability and stable operation for many years, we conduct a long-term continuous operation test under conditions that are much more severe than actual operating conditions.



#### Compressor reliability test.

After the continuous operation test, we remove the compressor from a selected outdoor unit, disassemble it, and examine the internal mechanisms and parts for potential failure. This helps ensure reliable long-term performance under harsh conditions.



#### Waterproofing test.

The unit - which is subject to rain and wind - complies with IPX4 waterproof specifications. Contact sections on printed circuit boards are resin-potted to prevent adverse effects caused by exposure to water (an unlikely occurrence).

## A globally trusted air conditioning brand

Panasonic – leading the way in Heating and Cooling. With more than 65 years of experience, selling to more than 120 countries around the world, Panasonic is one of the leaders in the heating and cooling sector. With a diverse network of production and R&D facilities, Panasonic delivers innovative products incorporating cutting-edge technologies that set the standard for air conditioners worldwide.



From, for and by Europe.

**Panasonic R&D Centers in Europe.**

The European Research and Development Centers of Panasonic in Germany and Italy are focused on technology development for intelligent and climate-friendly future solutions.

**Our European factories.**

In 2018, Panasonic began producing air to water heat pumps at its factory in Pilsen, Czech Republic. By 2023, production expanded to include air to water and water to water chillers and heat pumps, fan coils, water source heat pumps, and rooftops at Panasonic’s factories in Italy and France. Additionally, Panasonic’s new refrigeration factory in Poland further strengthens its commitment to the European market.

With a combination of highly skilled teams and advanced production automation, Panasonic is well-positioned to meet Europe’s growing demand while maintaining exceptional quality standards.

**More than 50 years of experienced organization in Europe.**

At Panasonic, we know that the best is always yet to come. This is why our air conditioning and heat pump solutions are constantly upgraded. Panasonic is committed to offering our customers innovative products in the heating and cooling market across Europe, and has the ambition to not only meet but also exceed their requirements. Our Technology and Design teams anticipate the needs of tomorrow. We look to produce smaller, quieter, efficient solutions - with better technological features – that can reduce energy consumption while providing suitable temperature conditions for the user.



Czech



Italy



France



Poland

**38 Training Center in 22 countries in Europe**

**The Panasonic PRO Academy.**

Heating and Cooling business is changing rapidly, new technologies, new regulations, new solutions that require continuous update for professionals. Panasonic takes its responsibility to its distributors, specifiers and installers seriously and has developed a comprehensive training programme with 38 Training Center in 22 countries in Europe.



## PRO Club. The professional website of Panasonic

Panasonic has an impressive range of support services for designers, specifiers, engineers and distributors working in the heating and cooling markets.



Panasonic PRO Club ([www.panasonicproclub.com](http://www.panasonicproclub.com)) is the online tool which makes your life easier! You just have to register and a lot of functionalities are freely available to you, wherever you are, from your computer or smartphone!

- Print catalogues with your logo and contact details
- Access to the extensive library of professional design, selection and calculation tools (Aquarea Designer, VRF software, chiller selector, etc.)
- Get documents of conformity and all other documents you may need
- Download all the service manuals, end user manuals and installation manuals
- Download energy labels in PDF format using the energy label generators
- Download Revit and CAD files and specification texts
- Know what to do with error codes (error code search by error code or unit ref.)
- PRO Academy: register for training
- Download product images in high resolutions, advertisements, deco guidelines
- Get to know special offers and promotions
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Panasonic PRO Club is fully compatible with tablet computer and smartphone.

Visit [www.panasonicproclub.com](http://www.panasonicproclub.com) or connect simply with your smartphone to the PRO Club using this QR.

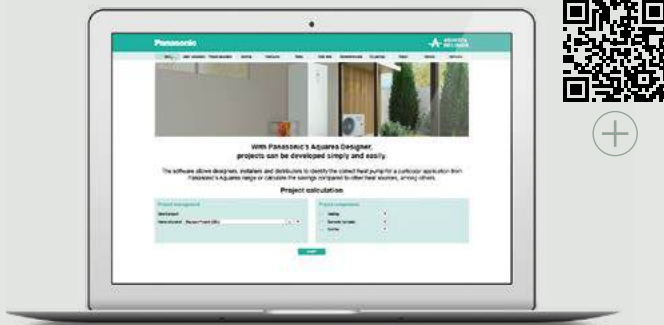
PRO Club 



Panasonic provides bespoke software and tools helping system designers, installers and dealers to very quickly select, design and size systems or create wiring or hydraulic diagrams at the push of a button.

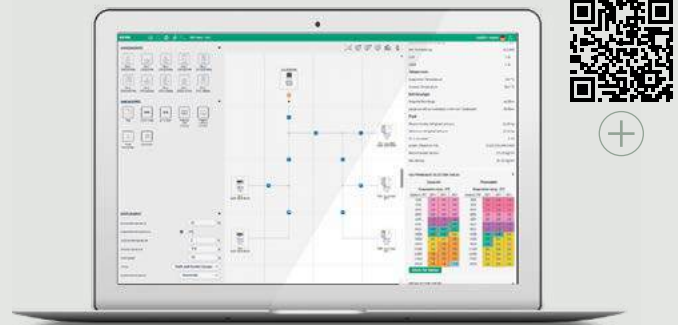
**Aquarea design tools**

Discover the suite of Aquarea design tools, created to simplify and optimise your workflow for Aquarea projects. From Aquarea Designer to the Hydraulic Scheme Generator, these resources are designed to make your planning process more efficient and effective.



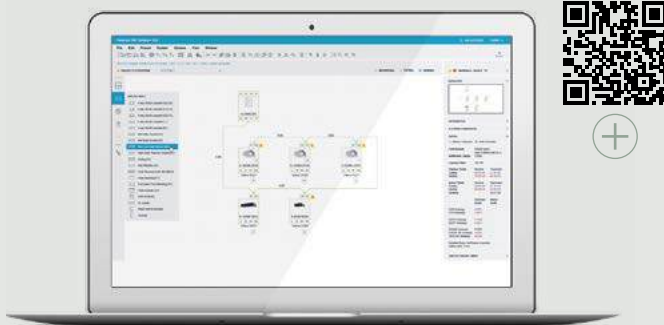
**Vent PRO**

From selecting the right ventilation unit to planning the air distribution system and choosing the appropriate components, the Vent PRO guides you through every step to ensure the optimal solution for your project.



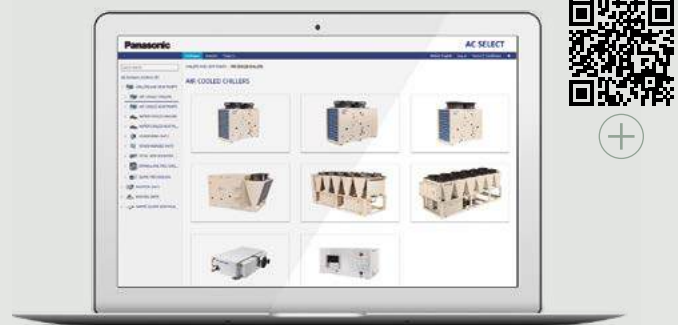
**Panasonic DX PRO Designer**

The Panasonic DX PRO Designer will be rebuilt with an improved user experience. The software runs in the cloud and is always up to date with the latest products. An intuitive interface supports the most complicated designs, allows online sharing and project collaboration with multilingual support.



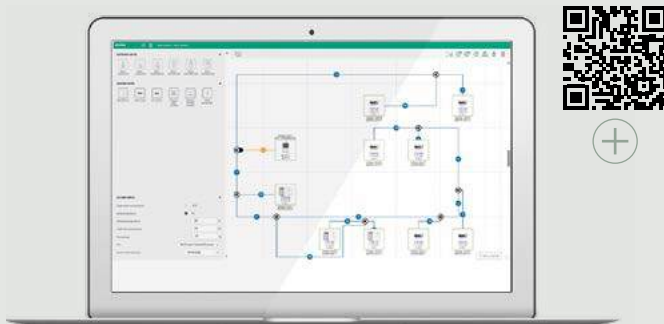
**AC SELECT**

Use AC SELECT to choose and configure your hydronic solution. Panasonic online selection tool offers an easy and quick solution to specify all the hydronic, fan coil unit and rooftop ranges at required conditions.



**REF PRO DESIGNER**

Think beyond unit selection. This advanced design tool supports engineers, installers, and technicians to design advanced systems for commercial refrigeration systems.



**OPEN BIM – BIM & AutoCAD Support**

Panasonic offers a wide range of HVAC&R products with BIM (Building Information Modelling) objects in Revit format and AutoCAD files, providing comprehensive support for design offices, consultants, and installers in planning projects.

