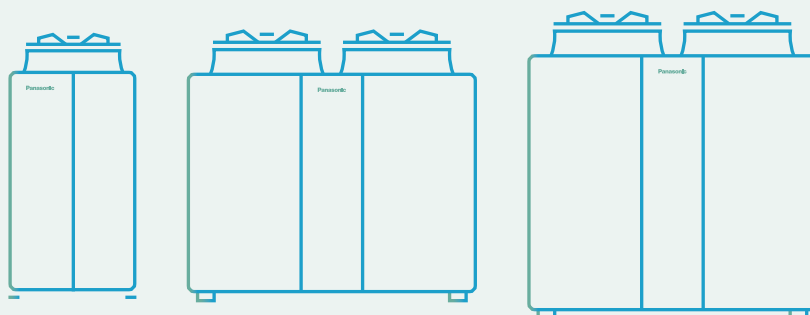


## Heat pump chillers 2022 / 2023



# 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.

2050



## 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

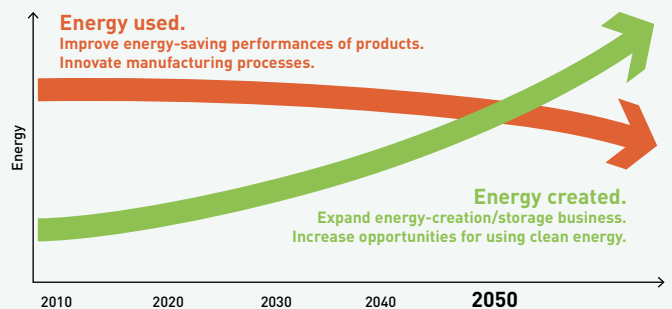
Energy used by Panasonic business activities and products.

**10** Energy used

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

**1** Energy created

### Working to realise environmental vision 2050





# Projects and case studies of Panasonic Heating & Cooling Solutions



Panasonic, a partner with the knowledge and experience to achieve your objectives and green needs.

## Integrated technology that permits better work, easy installation, high efficiency performance, and energy savings

Our main targets are the distributed services and B2B-integrated solutions.

Panasonic provides a single point of contact for the design and maintenance of your system, making things easy for you. Given our experience in processes, technologies and complex business models, we can offer you effective solutions that reduce costs, whilst also being efficient, user-friendly, reliable and innovative. Another advantage we offer to our clients is a support service for systems integration projects, which we provide through our wide range of services and solutions. As a global company, we have at our disposal the financial, logistical and technical resources to develop complex and wide-ranging solutions, both at country and international level by implementing them both on-time and on-budget.



Aquarea Heat Pumps provide heating and hot water for new rural housing development, UK.  
**Aquarea**



The Hotel Vincci Gala with efficiency class A, up to 70 % save energy. Barcelona, Spain.  
**ECOi - ECO G**



STEMCELL Technologies, a global biotechnology company, installed CO<sub>2</sub> condensing units - CR Series for cold rooms in the warehouse. France.  
**Refrigeration**



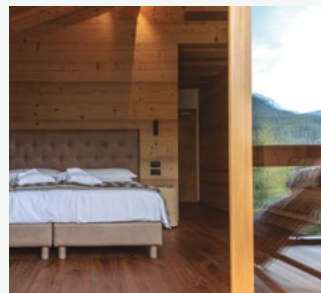
The EDEKA store in Germany, the first supermarket providing the maintenance-free nanoe™ X technology for better indoor air quality. Germany. **ECOi and nanoe™ X**



Aquarea T-CAP provides a complete solution of heating, cooling and DHW for the refurbishment of a luxury house in Voorthuizen, Netherlands.  
**Aquarea**



CÉDRUS LIGET, a complex facility including apartments, penthouses and showrooms etc. Hungary. **ECOi-W - ECOi - PACi**



Dolomiti Lodge Alverà hotel with nice wooden furnishings, located in Cortina d'Ampezzo, Italy. **ECOi**



LIAIGRE showroom, well-known as a luxury design architect in Paris, France. **ECOi**



Marina Village Greystones. 205 apartments and 153 houses. Ireland. **Aquarea**



ITK Engineering GmbH. An innovative office building located in Germany. **ECOi - PACi**



A historic building on Amsterdam's Marineterrein. Netherlands. **ECOi-W**



Nolan's supermarket in Ireland installs the first Panasonic CO<sub>2</sub> condensing units - CR Series for showcases. Ireland.  
**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.

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



First room air conditioner launched for domestic installation.



1958

World's first air conditioner equipped with nanoe™



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



1985

1971

1975

1982

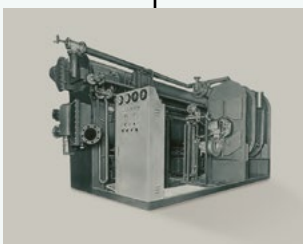
1989

2008

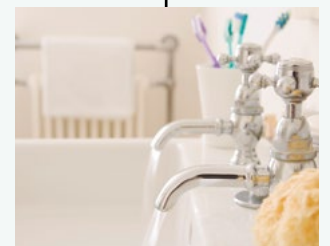
2010



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



Starts production of absorption chillers.



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



Introduces world's first simultaneous 3-Pipe heating / cooling VRF System.



# 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.

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

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



New VRF Systems ECOi EX with extraordinary energy saving performance.



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



2012

2015

2016

2018

2019

2020

2021

Looking ahead



The first Hybrid System with VRF and GHP in Europe.



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



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

**JAPAN  
QUALITY**





## 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.



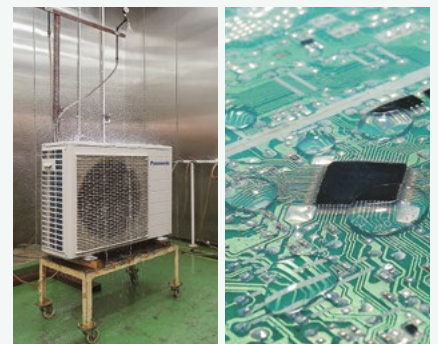
#### Long-term durability test.

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 50 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.





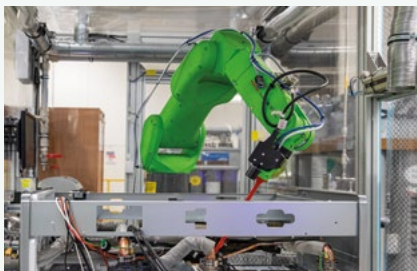


**From, for and by Europe**

In 2018 Panasonic initiated the production of air to water heat pumps in its factory in Pilsen, Czech Republic. Keeping an excellent combination of highly skilled human resources and production automation the big demand growth foreseen in Europe can be met with outstanding quality standards.



Factory in Pilsen, Czech Republic.



**More than 40 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.

**Panasonic R&D Center Germany GmbH.**

The European Research and Development Center of Panasonic focusing on technology development for intelligent and environmentally friendly future products, such as audio video, communication and energy solutions.



Panasonic R&D Center Germany GmbH.

**38 Training Center in 19 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 19 countries in Europe.



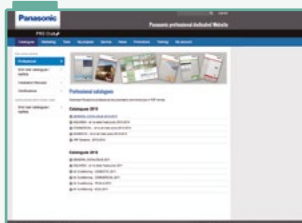
# PRO Club. The professional website of Panasonic

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

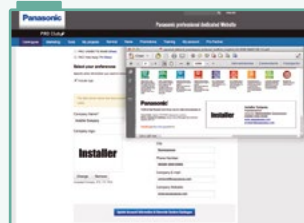


Panasonic PRO Club ([www.panasonicproclub.com](http://www.panasonicproclub.com)) is the online tool which makes your life easier! You just have to register and a lot of functionalities are freely available to you, where ever you are, from your computer or smartphone!

- 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
- Find out about the latest news first



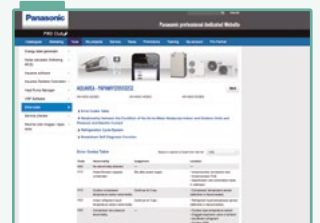
Easy download Panasonic service documentation and brochures.



Customise leaflets with your logo and contact details. Save and print the PDF.



Energy label generator. Download Energy labels of any device in PDF format.



Error Code on your smartphone and your PC: Search by error code or model reference. Online version + downloadable version for offline use.

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.

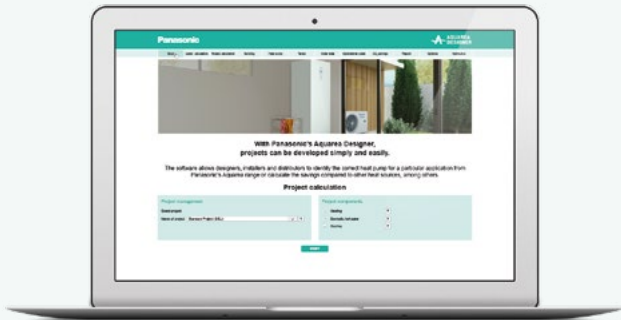




Panasonic provides bespoke software and tools helping system designers, installers and dealers to very quickly select, design and size systems or create wiring or hydraulic diagrams at the push of a button.

**Aquarea Designer - online tool**

With Panasonic's online tool, projects can be developed simply and easily. The newly developed tool is optimised to help HVAC professionals easily identify the most appropriate Aquarea air to water heat pump for a particular application.



**Domestic AirCon Quick Selector**

This user-friendly online tool for our domestic range allows to choose the best split or multi-split system for each project needs and get the specifications of that particular application.



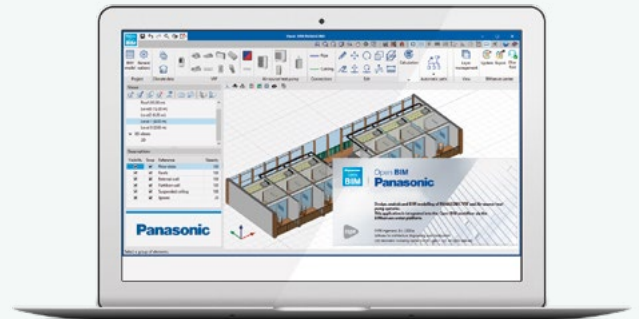
**VRF Designer**

Building on the success of the ECOi VRF Designer software, this package provides air conditioning system designers, installers and dealers with a program to design and size projects for Panasonic's VRF ranges.



**Open BIM**

Design, analysis and BIM modeling of Panasonic VRF and Air to Water heat pump systems. Generates documents, 3D model, schematics and drawings. This application is integrated into the Open BIM workflow via the BIMserver.center platform.



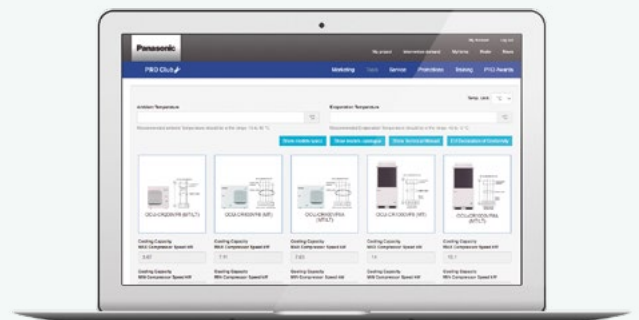
**Chiller configurator**

This online software solution offers a complete tool to allow the user to accurately calculate the performance at specified conditions, select and configure our range of commercial chillers, heat pumps and fan coils. It also provides a comprehensive report to share with customers and clients alike.



**Refrigeration tool**

Panasonic has launched a new online calculator to support engineers, installers, and technicians to quickly make calculations when specifying solutions for commercial refrigeration systems.



*ECO i - W*





## Discover a new era of ECOi, the ECOi-W. Cooling only and heat pumps chillers

Panasonic introduces the new ECOi-W cooling only and heat pumps chiller series.

These new series provides a wide variety of HVAC system solutions, to meet all of your residential, commercial and industrial needs.

### ECOi-W R32 outdoor units

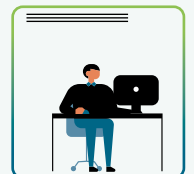
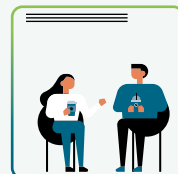
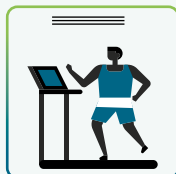
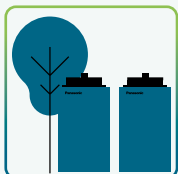
ECOi-W R32, the new range of sustainable chiller solutions to suit a variety of commercial and industrial applications	→ 14
Range of ECOi-W R32 outdoor units	→ 16
Features of ECOi-W R32 cooling only outdoor units	→ 18
U - 050/060/070/075 CQ, CR, CS	→ 19
U - 085/100/115/130 CQ, CR, CS	→ 20
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Features of ECOi-W R32 heat pump outdoor units	→ 22
U - 050/060/070/075 CM, CN, CO	→ 23
U - 085/100/115/130 CM, CN, CO	→ 24
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### ECOi-W R410A outdoor units

ECOi-W R410A, the solution for hotels, offices and industry	→ 28
Range of ECOi-W R410A outdoor units	→ 30
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U - 020/025/030/035/040 CV	→ 34
U - 045/055/065/075 CV	→ 35
U - 090/105/125 CV	→ 36
U - 140/150/170/190/210 CV	→ 37
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U - 020/025/030/035/040 CW	→ 40
U - 045/055/065/075 CW	→ 41
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Options for R410A outdoor units	→ 44

### Fan coils

Explore the new range of fan coils. Designed to fit with your environment and enhance comfort	→ 46
Range of fan coils	→ 48
Fan coils - ducted	→ 50
Fan coils - high static pressure ducted	→ 52
Fan coils - 4 way cassette	→ 54
Fan coils - ceiling chassis	→ 56
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Control and connectivity	→ 62
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# ECOi-W R32, the new range of sustainable chiller solutions to suit a variety of commercial and industrial applications

ECOi-W provides the optimal performance in any climatic condition.



## 1 High efficiency level

- High efficiency levels thanks to an efficient compressor's performance, specially designed for R32 refrigerant.

## 2 R32 Refrigerant

- Thanks to a GWP (Global Warming Potential) of 675, this refrigerant is 3 times less polluting than the standard R410A.

## 3 High flexibility

- Capacity range from 50 to 170 kW
- Customisable design
- Operating range: -15 °C (heating) to 48 °C (cooling)

## 4 High quality

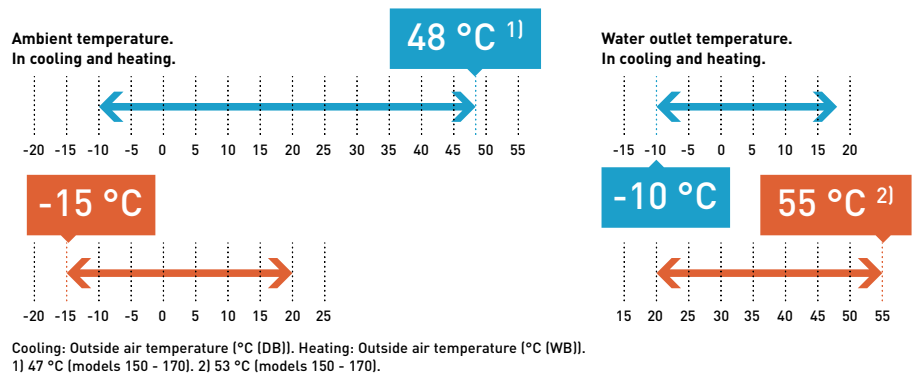
- Defrost limiting coil design
- Optimised design for service and maintenance
- Compact footprint

### Operating conditions

Panasonic ECOi-W provides a wide operating range from -15 °C in heating to 48 °C in cooling.

### Water outlet temperature in cooling.

A water outlet temperature of -10 °C in cooling offers a uniqueness to the ECOi-W Series, which can ensure the operation temperature of the process equipment in factories.



### Compact units

The ECOi-W R32 range has been designed in a compact manner to ensure the smallest possible footprint. The first chassis measures 2,53 m<sup>2</sup> and the third chassis features **one of the smallest footprint on the market** with an average ratio of 37 kW/m<sup>2</sup>.

### Super low noise versions

For the entire range, customers can choose between a standard unit or a super low noise version. The super low noise version features EC fans and compressor sound jackets for improved sound levels.



ECOi-W R32 line-up

ECOi-W R32 size	50	60	70	75	85	100	115	130	150	170	
Cooling only range											
	SEER	4,23	4,40	4,57	4,60	4,52	4,30	4,53	4,47	4,64	4,56
Heat pump range											
	SEER <sup>1)</sup>	4,36	4,32	4,54	4,47	4,48	4,35	4,34	4,33	4,61	4,62
	SCOP <sup>1)</sup>	3,63	3,52	3,55	3,57	3,57	3,63	3,60	3,73	3,65	3,60
	Energy efficiency class (heating) <sup>1) 2)</sup>	A <sup>+</sup>	A <sup>+</sup>	A <sup>+</sup>	—	—	—	—	—	—	—
	Dimension (H x W x D)	 1986x2180x1160		 1986x2180x1160		 2286x2180x1160			 2285 x 3789 x 1151		

1) Those are the data with variable flow. 2) Following Eurovent and COMMISSION REGULATION (EU) No 811/2013 for low-temperature heat pumps. Scale from A+++ to D, as of 26th September 2019.

Outstanding water pump configuration

Units can be equipped with a variable speed pump that automatically adjusts its speed according to the required capacity. Compared to a fixed-speed pump, and depending on the operating profile of a pump working at partial load, the annual energy consumption of the pump can be reduced.

Key points

- 10 sizes - 4 chassis
- Cooling only or Reversible units
- Low GWP R32 refrigerant
- High efficiency
- Wide operating limits
- Low footprint
- New advanced control system
- Easy maintenance
- Standard or Super low noise versions
- Remotely controllable with ECOi-W Cloud
- 100% factory tested

R32  
675



R410A  
2088



GWP - Measurement scale.

1) Comparison made between equivalent units operating respectively with R410A and R32 refrigerants. Impact only considers the refrigerants and not the units as a whole. 2) U-150 R32 Cooling Only. 3) U-130 R32 Heat Pump Chiller.

## Range of ECOi-W R32 outdoor units

Page	Outdoor units	50 kW	60 kW	70 kW	75 kW
	ECOi-W R32 50 to 60				
<b>P. 19</b>	Cooling only	U-050CQNB / U-050CQBM / U-050CRNB / U-050CRBM / U-050CSNB / U-050CSBM	U-060CQNB / U-060CQBM / U-060CRNB / U-060CRBM / U-060CSNB / U-060CSBM		
<b>P. 23</b>	Heat pump	U-050CMNB / U-050CMBM / U-050CNNB / U-050CNBM / U-050CONB / U-050COBM	U-060CMNB / U-060CMBM / U-060CNNB / U-060CNBM / U-060CONB / U-060COBM		
	ECOi-W R32 70 to 75				
<b>P. 19</b>	Cooling only		U-070CQNB / U-070CQBM / U-070CRNB / U-070CRBM / U-070CSNB / U-070CSBM	U-075CQNB / U-075CQBM / U-075CRNB / U-075CRBM / U-075CSNB / U-075CSBM	
<b>P. 23</b>	Heat pump		U-070CMNB / U-070CMBM / U-070CNNB / U-070CNBM / U-070CONB / U-070COBM	U-075CMNB / U-075CMBM / U-075CNNB / U-075CNBM / U-075CONB / U-075COBM	
	ECOi-W R32 85 to 130				
<b>P. 20</b>	Cooling only				
<b>P. 24</b>	Heat pump				
	ECOi-W R32 150 to 170				
<b>P. 21</b>	Cooling only				
<b>P. 25</b>	Heat pump				





85 kW

100 kW

115 kW

130 kW

150 kW

170 kW



U-085CQNB /	U-100CQNB /	U-115CQNB /	U-130CQNB /
U-085CQBL /	U-100CQBL /	U-115CQBL /	U-130CQBL /
U-085CRNB /	U-100CRNB /	U-115CRNB /	U-130CRNB /
U-085CRBL /	U-100CRBL /	U-115CRBL /	U-130CRBL /
U-085CSNB /	U-100CSNB /	U-115CSNB /	U-130CSNB /
U-085CSBL	U-100CSBL	U-115CSBL	U-130CSBL

U-085CMNB /	U-100CMNB /	U-115CMNB /	U-130CONB /
U-085CMBL /	U-100CMBL /	U-115CMBL /	U-130COBL /
U-085CNNB /	U-100CNNB /	U-115CNNB /	U-130CMNB /
U-085CNBL /	U-100CNBL /	U-115CNBL /	U-130CMBL /
U-085CONB /	U-100CONB /	U-115CONB /	U-130CNNB /
U-085COBL	U-100COBL	U-115COBL	U-130CNBL



U-150CQNB / U-150CQBL /	U-170CQNB / U-170CQBL /
U-150CRNB / U-150CRBL /	U-170CRNB / U-170CRBL /
U-150CSNB / U-150CSBL	U-170CSNB / U-170CSBL

U-150CMNB / U-150CMBL /	U-170CMNB / U-170CMBL /
U-150CNNB / U-150CNBL /	U-170CNNB / U-170CNBL /
U-150CONB / U-150COBL	U-170CONB / U-170COBL



# Features of ECOi-W R32 cooling only outdoor units



REFER TO PAGE 26 TO SEE MORE  
OPTIONS FOR R32 OUTDOOR UNITS

## ECOi-W R32 cooling only outdoor units.

- High seasonal efficiency
- Water outlet temperature range: -10 to +18 °C
- Optimised design for service and maintenance
- Simple user friendly control as standard
- Modbus RTU & TCP/IP, BACnet MSTP & IP as standard
- Electronic expansion valves

### Technical focus:

- Chiller type: cooling only
- Compressor type (number): Scroll compressors (2)
- Refrigerant type: R32
- Heat exchanger: stainless steel plate heat exchanger
- Flow switch, water safety and air purge valves included
- Water filter included (mandatory to be installed on site)
- Night mode setting to save energy and reduce noise level
- Water compensation curve control

## U - 050/060/070/075 CQ, CR, CS

- Ambient temperature operating range: -15 to +48 °C
- Optional acoustically insulating compressor jacket

### Technical focus:

- Refrigerant circuit: 1
- Fan type (number): axial fan (1 for 50/60, 2 for 70/75), optional EC and high pressure EC fans

## U - 085/100/115/130 CQ, CR, CS

- Ambient temperature operating range: -15 to +48 °C
- Optional acoustically insulating compressor jacket

### Technical focus:

- Refrigerant circuit: 1
- Fan type (number): axial fan (2), optional EC and high pressure EC fans

## U - 150/170 CQ, CR, CS

- Ambient temperature operating range: -15 to +47 °C
- Victaulic® water connections

### Technical focus:

- Refrigerant circuit: 2
- Fan type (number): axial fan (3), optional EC and high pressure EC fans

## Available options

Options					
Pump	Pump drive	Hydraulic options	Ambient options	Control options	Electrical options
Single pump low pressure	Fixed speed	Low water pressure sensor <sup>1)</sup>	Finned coil treatment - epoxy	Energy meter	EC fan(s) option
	Variable twin speed (single pump)	Desuperheater	Finned coil Blygold treatment	Digital input for: Cooling/heating or Night mode or Load Shedding	Power factor correction capacitors <sup>3)</sup>
Variable twin speed (double pump)		Water isolation valves	Outdoor coil protection grid		Soft starter
Double pump low pressure	Constant outlet pressure (single pump) <sup>2)</sup>		Rubber pads (supplied loose)		
Double pump high pressure		Constant outlet pressure (double pump) <sup>2)</sup>	Spring damper (supplied loose)		
			Container transport		<b>Refrigerant options</b>
			Acoustically insulating compressor jacket		Refrigerant gauges (HP and LP manometers)

1) Low water pressure sensor is supplied loose when selected as an option without pump and hydraulic kit. To be installed on site. 2) Available on special quotation, please contact your local sales representative. 3) Only for U - 150/170 CQ, CR, CS.

**U - 050/060/070/075 CQ, CR, CS****Cooling capacity: 52,6 to 75,3 kW**

High seasonal efficiency and wide range options to meet the exact requirements of your project.



Model	50			60			70			75				
<b>AC fan model w/o buffer / w buffer</b>	<b>U-050CQNB/U-050CQBM</b>			<b>U-060CQNB/U-060CQBM</b>			<b>U-070CQNB/U-070CQBM</b>			<b>U-075CQNB/U-075CQBM</b>				
<b>EC fan model w/o buffer / w buffer</b>	<b>U-050CRNB/U-050CRBM</b>			<b>U-060CRNB/U-060CRBM</b>			<b>U-070CRNB/U-070CRBM</b>			<b>U-075CRNB/U-075CRBM</b>				
<b>High pressure EC fan model w/o buffer / w buffer</b>	<b>U-050CSNB/U-050CSBM</b>			<b>U-060CSNB/U-060CSBM</b>			<b>U-070CSNB/U-070CSBM</b>			<b>U-075CSNB/U-075CSBM</b>				
Power supply	Voltage	V	400			400			400			400		
	Phase		Three phase			Three phase			Three phase			Three phase		
	Frequency	Hz	50			50			50			50		
Cooling capacity <sup>1)</sup>		kW	52,6			60,4			70,0			75,3		
Input power <sup>1)</sup>		kW	16,8			19,8			22,3			25,7		
Total EER 100 % <sup>1)</sup>			3,12			3,05			3,15			2,93		
<b>SEER <sup>2)</sup></b>			<b>4,23</b>			<b>4,40</b>			<b>4,57</b>			<b>4,60</b>		
$\eta_{s,c}$ <sup>2)</sup>		%	<b>166</b>			<b>173</b>			<b>180</b>			<b>181</b>		
Startup type			Direct			Direct			Direct			Direct		
Maximum operating current		A	43,3			52,7			60			69,4		
Startup current w/o softstarter / w softstarter		A	161/119			162/121			200/148			209/157		
Sound power (w AC/EC fans / w HP EC fans)		dB(A)	83,2/87,2			83,8/87,3			81,3/89,2			81,3/89,3		
Sound pressure (w AC/EC fans / w HP EC fans) <sup>3)</sup>		dB(A)	51,4/55,4			52,0/55,5			49,5/57,4			49,5/57,5		
Dimension (w AC fans) w/o buffer	HxWxD	mm	1986x2180x1160			1986x2180x1160			1986x2180x1160			1986x2180x1160		
Dimension (w AC fans) w buffer	HxWxD	mm	1986x2680x1160			1986x2680x1160			1986x2680x1160			1986x2680x1160		
Dimension (w EC/HP EC fans) w/o buffer	HxWxD	mm	2034x2180x1160			2034x2180x1160			2034x2180x1160			2034x2180x1160		
Dimension (w EC/HP EC fans) w buffer	HxWxD	mm	2034x2680x1160			2034x2680x1160			2034x2680x1160			2034x2680x1160		
Operating weight w/o buffer / w buffer		kg	527/1018			547/1038			621/1114			637/1130		
Refrigerant (R32)		kg	7,9			8,1			10,3			10,6		
Number of refrigerant circuit			1			1			1			1		
<b>Compressors</b>														
Number			2			2			2			2		
Type			Scroll			Scroll			Scroll			Scroll		
Part load step		%	0/47/53/100			0/41/59/100			0/40/60/100			0/46/54/100		
Crankcase heater		W	70/70			70/66			70/66			66/66		
<b>Evaporator</b>														
Number			1			1			1			1		
Type			Plate			Plate			Plate			Plate		
Nominal water flow	Cool	m <sup>3</sup> /h	9,2			10,6			12,2			13,2		
Water pressure drop	Cool	kPa	35,4			46,8			33,1			38,2		
Water volume		l	4,1			4,1			6,1			6,1		
Antifreeze heater		W	30			30			2x30			2x30		
<b>Coils</b>														
Number			1			1			2			2		
Frontal surface		m <sup>2</sup>	4,2			4,2			5,6			5,6		
Number of rows			2			2			2			2		
<b>Fans standard</b>														
Number			AC			EC			HP EC			AC		
Air flow		m <sup>3</sup> /h	21200	21200	21200	21200	21200	21200	30000	30000	30000	30000	30000	
Rotation speed		r.p.m.	870	780	940	870	780	940	690	620	940	690	620	
Input power (each fan)		W	2,1	1,1	1,6	2,1	1,1	1,6	1	0,6	1,9	1	0,6	
Static pressure (HP EC)		Pa	85			85			180			180		
<b>Water connections</b>														
Type			Male gas threaded BSPP ISO 228			Male gas threaded BSPP ISO 228			Male gas threaded BSPP ISO 228			Male gas threaded BSPP ISO 228		
Inlet - diameter	Evaporator	Inch	2			2			2			2		
Outlet - diameter		Inch	2			2			2			2		
Inlet - diameter	Desuperheater	Inch	1 ¼			1 ¼			1 ¼			1 ¼		
Outlet - diameter		Inch	1 ¼			1 ¼			1 ¼			1 ¼		

1) Data refers to 7 °C leaving chilled water temperature and 35 °C condenser air temperature, according EN14511 standard. 2) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers. 3) Sound pressure levels calculated at 10 meters. Sound pressure levels refer to ISO standard 3744 with parallel piped shape.

\* w: with, w/o: without. \*\* The data are calculated with variable flow.

**Accessories**

<b>PAW-SYSREMKIT1</b>	Remote control
<b>PAW-CM000SP041</b>	Cloudgate plug and play IP65 box mobile 4G Europe
<b>PAW-CM000K0001</b>	Remote antenna to improve signal coverage

**Accessories**

<b>PAW-00SRTS011</b>	ECOi-W Cloud service fee. Prepaid subscription for 1 year
<b>PAW-SYSSOV4</b>	Shut off valves kit for model 50 - 75





## U - 085/100/115/130 CQ, CR, CS

Cooling capacity: 84,2 to 135,0 kW

Customizable design gives high flexibility. Wide range of communication protocols fulfill the requirements in hotels, offices, industry applications.



Model	85			100			115			130				
AC fan model w/o buffer / w buffer	U-085CQNB/U-085CQBL			U-100CQNB/U-100CQBL			U-115CQNB/U-115CQBL			U-130CQNB/U-130CQBL				
EC fan model w/o buffer / w buffer	U-085CRNB/U-085CRBL			U-100CRNB/U-100CRBL			U-115CRNB/U-115CRBL			U-130CRNB/U-130CRBL				
High pressure EC fan model w/o buffer / w buffer	U-085CSNB/U-085CSBL			U-100CSNB/U-100CSBL			U-115CSNB/U-115CSBL			U-130CSNB/U-130CSBL				
Power supply	Voltage	V	400			400			400			400		
	Phase		Three phase			Three phase			Three phase			Three phase		
	Frequency	Hz	50			50			50			50		
Cooling capacity <sup>1)</sup>	kW	84,2			102,2			121,0			135,0			
Input power <sup>1)</sup>	kW	29,1			34,1			37,8			42,6			
Total EER 100 % <sup>1)</sup>		2,89			3,00			3,19			3,16			
SEER <sup>2)</sup>		4,52			4,30			4,53			4,47			
$\eta_{s,c}$ <sup>2)</sup>	%	178			169			178			176			
Startup type		Direct			Direct			Direct			Direct			
Maximum operating current	A	75,0			86,6			93,8			104,2			
Startup current w/o softstarter / w softstarter	A	215/129			326/240			333/247			343/257			
Sound power (w AC/EC fans / w HP EC fans)	dB(A)	84,4/89,3			86,0/89,7			87,0/90,0			87,4/90,2			
Sound pressure (w AC/EC fans / w HP EC fans) <sup>3)</sup>	dB(A)	52,5/57,4			54,1/57,8			55,1/58,1			55,5/58,3			
Dimension (w AC fans) w/o buffer	HxWxD	mm	2286x2180x1160			2286x2180x1160			2286x2180x1160			2286x2180x1160		
Dimension (w AC fans) w buffer	HxWxD	mm	2286x2680x1160			2286x2680x1160			2286x2680x1160			2286x2680x1160		
Dimension (w EC/HP EC fans) w/o buffer	HxWxD	mm	2334x2180x1160			2334x2180x1160			2334x2180x1160			2334x2180x1160		
Dimension (w EC/HP EC fans) w buffer	HxWxD	mm	2334x2680x1160			2334x2680x1160			2334x2680x1160			2334x2680x1160		
Operating weight w/o buffer / w buffer	kg	701/1202			731/1232			813/1317			815/1319			
Refrigerant (R32)	kg	12,8			10,9			13			15			
Number of refrigerant circuit		1			1			1			1			
<b>Compressors</b>														
Number		2			2			2			2			
Type		Scroll			Scroll			Scroll			Scroll			
Part load step	%	0/50/100			0/34/66/100			0/44/56/100			0/50/100			
Crankcase heater	W	66/66			66/66			66/66			66/66			
<b>Evaporator</b>														
Number		1			1			1			1			
Type		Plate			Plate			Plate			Plate			
Nominal water flow	Cool	m <sup>3</sup> /h	14,7			17,9			21,1			23,6		
Water pressure drop	Cool	kPa	22,6			33,5			46,6			58,1		
Water volume		l	7,8			7,8			7,8			7,8		
Antifreeze heater	W	2x30			2x30			2x30			2x30			
<b>Coils</b>														
Number		2			2			2			2			
Frontal surface		m <sup>2</sup>	6,4			6,4			6,4			6,4		
Number of rows			2			2			3			3		
<b>Fans standard</b>														
Number		AC	EC	HP EC	AC	EC	HP EC	AC	EC	HP EC	AC	EC	HP EC	
Number		2			2			2			2			
Air flow	m <sup>3</sup> /h	41300	41300	41300	41300	41300	41300	41300	41300	41300	41300	41300	41300	
Rotation speed	r.p.m.	870	780	940	870	780	940	870	780	940	870	780	940	
Input power (each fan)	W	2,1	0,8	1,6	2,1	0,8	1,6	1,6	1,0	1,6	1,6	1,0	1,6	
Static pressure (HP EC)	Pa	85			85			85			85			
<b>Water connections</b>														
Type			Male gas threaded BSPP ISO 228			Male gas threaded BSPP ISO 228			Male gas threaded BSPP ISO 228			Male gas threaded BSPP ISO 228		
Inlet - diameter	Evaporator	Inch	2 ½			2 ½			2 ½			2 ½		
Outlet - diameter		Inch	2 ½			2 ½			2 ½			2 ½		
Inlet - diameter	Desuperheater	Inch	1 ¼			1 ¼			1 ¼			1 ¼		
Outlet - diameter		Inch	1 ¼			1 ¼			1 ¼			1 ¼		

1) Data refers to 7 °C leaving chilled water temperature and 35 °C condenser air temperature, according EN14511 standard. 2) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers. 3) Sound pressure levels calculated at 10 meters. Sound pressure levels refer to ISO standard 3744 with parallel piped shape.

\* w: with, w/o: without. \*\* The data are calculated with variable flow.

Accessories	
PAW-SYSREMKIT1	Remote control
PAW-CM000SP041	Cloudgate plug and play IP65 box mobile 4G Europe
PAW-CM000K0001	Remote antenna to improve signal coverage

Accessories	
PAW-00SRTS011	ECOi-W Cloud service fee. Prepaid subscription for 1 year
PAW-SYSSOV5	Shut off valves kit for model 85 - 170



**U - 150/170 CQ, CR, CS****Cooling capacity: 156,0 to 176,0 kW**

Powerful and efficient operation with 2 scroll compressors and superior flexibility with plug and play hydraulic options.



Model	150		170					
<b>AC fan model w/o buffer / w buffer</b>	<b>U-150CQNB/U-150CQBL</b>		<b>U-170CQNB/U-170CQBL</b>					
<b>EC fan model w/o buffer / w buffer</b>	<b>U-150CRNB/U-150CRBL</b>		<b>U-170CRNB/U-170CRBL</b>					
<b>High pressure EC fan model w/o buffer / w buffer</b>	<b>U-150CSNB/U-150CSBL</b>		<b>U-170CSNB/U-170CSBL</b>					
Power supply	Voltage	V	400					
	Phase		Three phase					
	Frequency	Hz	50					
Cooling capacity <sup>1)</sup>		kW	156,0	176,0				
Input power <sup>1)</sup>		kW	47,9	55,5				
Total EER 100 % <sup>1)</sup>			3,26	3,17				
<b>SEER <sup>2)</sup></b>			<b>4,64</b>	<b>4,56</b>				
$\eta_{s,c}$ <sup>2)</sup>		%	<b>183</b>	<b>179</b>				
Startup type			Direct	Direct				
Maximum operating current		A	125	142				
Startup current w/o softstarter / w softstarter		A	363/277	380/294				
Sound power (w AC/EC fans / w HP EC fans)		dB(A)	88,9/91,6	91,1/92,3				
Sound pressure (w AC/EC fans / w HP EC fans) <sup>3)</sup>		dB(A)	57,0/59,7	59,2/60,4				
Dimension (w AC fans) w/o buffer	HxWxD	mm	2285x3789x1151	2285x3789x1151				
Dimension (w AC fans) w buffer	HxWxD	mm	2285x3789x1151	2285x3789x1151				
Dimension (w EC/HP EC fans) w/o buffer	HxWxD	mm	2333x3789x1151	2333x3789x1151				
Dimension (w EC/HP EC fans) w buffer	HxWxD	mm	2333x3789x1151	2333x3789x1151				
Operating weight w/o buffer / w buffer		kg	1265/1683	1279/1697				
Refrigerant (R32)		kg	19,2	20,0				
Number of refrigerant circuit			1	1				
<b>Compressors</b>								
Number			2	2				
Type			Scroll	Scroll				
Part load step		%	0/45/55/100	0/38/62/100				
Crankcase heater		W	66/105	66/105				
<b>Evaporator</b>								
Number			1	1				
Type			Plate	Plate				
Nominal water flow	Cool	m <sup>3</sup> /h	27,3	30,7				
Water pressure drop	Cool	kPa	39,1	49,7				
Water volume		l	11,5	12,9				
Antifreeze heater		W	130	130				
<b>Coils</b>								
Number			2	2				
Frontal surface		m <sup>2</sup>	8,7	8,7				
Number of rows			3	3				
<b>Fans standard</b>								
Number			AC	EC	HP EC	AC	EC	HP EC
Number				3			3	
Air flow		m <sup>3</sup> /h	56200	56200	56200	56200	56200	56200
Rotation speed		r.p.m.	870	780	940	870	780	940
Input power (each fan)		W	1,4	0,8	1,7	1,4	0,8	1,7
Static pressure (HP EC)		Pa		110			110	
<b>Water connections</b>								
Type			Male gas threaded BSPP ISO 229		Male gas threaded BSPP ISO 230			
Inlet - diameter	Evaporator	Inch	2 ½		2 ½			
Outlet - diameter		Inch	2 ½		2 ½			
Inlet - diameter	Desuperheater	Inch	1 ¼		1 ¼			
Outlet - diameter		Inch	1 ¼		1 ¼			

1) Data refers to 7 °C leaving chilled water temperature and 35 °C condenser air temperature, according EN14511 standard. 2) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers. 3) Sound pressure levels calculated at 10 meters. Sound pressure levels refer to ISO standard 3744 with parallel piped shape.

\* w: with, w/o: without. \*\* The data are calculated with variable flow.

Accessories	
<b>PAW-SYSREMKIT1</b>	Remote control
<b>PAW-CM000SP041</b>	Cloudgate plug and play IP65 box mobile 4G Europe
<b>PAW-CM000K001</b>	Remote antenna to improve signal coverage

Accessories	
<b>PAW-00SRTS011</b>	ECOi-W Cloud service fee. Prepaid subscription for 1 year
<b>PAW-SYSSOV5</b>	Shut off valves kit for model 85 - 170





# Features of ECOi-W R32 heat pump outdoor units



REFER TO PAGE 26 TO SEE MORE  
OPTIONS FOR R32 OUTDOOR UNITS

## ECOi-W R32 heat pump outdoor units.

- High seasonal efficiency in cooling and heating
- Optional acoustically insulating compressor jacket
- Optimised design for service and maintenance
- Simple user friendly control as standard
- Modbus RTU & TCP/IP, BACnet MSTP & IP as standard
- Electronic expansion valves

### Technical focus:

- Chiller type: heat pump
- Compressor type (number): Scroll compressors (2)
- Refrigerant type: R32
- Refrigerant circuit: 1
- Heat exchanger: stainless steel plate heat exchanger
- Flow switch, water safety and air purge valves included
- Water filter included (mandatory to be installed on site)
- Night mode setting to save energy and reduce noise level
- Water compensation curve control
- Bluefin anti-corrosion coating

## U - 050/060/070/075 CM, CN, CO

- Ambient temperature operating range: -15 to +48 °C in cooling, -15 to +20 °C in heating
- Water outlet temperature range: -10 to +18 °C in cooling, +20 to +55 °C in heating

### Technical focus:

- Fan type (number): axial fan (1 for 50/60, 2 for 70/75), optional EC and high pressure EC fans

## U - 085/100/115/130 CM, CN, CO

- Ambient temperature operating range: -15 to +48 °C in cooling, -15 to +20 °C in heating
- Water outlet temperature range: -10 to +18 °C in cooling, +20 to +55 °C in heating

### Technical focus:

- Fan type (number): axial fan (2), optional EC and high pressure EC fans

## U - 150/170 CM, CN, CO

- Ambient temperature operating range: -15 to +47 °C in cooling, -15 to +20 °C in heating
- Water outlet temperature range: -10 to +18 °C in cooling, +20 to +53 °C in heating
- Victaulic® water connections

### Technical focus:

- Fan type (number): axial fan (3), optional AC, EC and high pressure EC fans
- Remote LAN connection as standard

## Available options

Options	Pump drive	Hydraulic options	Ambient options	Control options	Electrical options
Single pump low pressure	Fixed speed	Low water pressure sensor <sup>1)</sup>	Finned coil treatment - epoxy	Energy meter	EC fan(s) option
Single pump high pressure	Variable twin speed (single pump)	Desuperheater	Finned coil Blygold treatment	Digital input for: Cooling/heating or Night mode or Load Shedding	Power factor correction capacitors <sup>3)</sup>
Double pump low pressure	Variable twin speed (double pump)	Water isolation valves	Outdoor coil protection grid		Soft starter
Double pump high pressure	Constant outlet pressure (single pump) <sup>2)</sup>		Rubber pads (supplied loose)		
	Constant outlet pressure (double pump) <sup>2)</sup>		Spring damper (supplied loose)		
			Container transport		<b>Refrigerant options</b>
			Acoustically insulating compressor jacket		Refrigerant gauges (HP and LP manometers)

1) Low water pressure sensor is supplied loose when selected as an option without pump and hydraulic kit. To be installed on site. 2) Available on special quotation, please contact your local sales representative. 3) Only for U - 150/170 CM, CN, CO.



**U - 050/060/070/075 CM, CN, CO**

**Cooling capacity: 49,9 to 75,3 kW**  
**Heating capacity: 53,5 to 80,0 kW**

High seasonal efficiency in cooling, maximum SEER 4,54 in this range. ECOi-W Series offers a variety of options to meet your needs.



Model	50			60			70			75				
<b>AC fan model w/o buffer / w buffer</b>	U-050CMNB/U-050CMBM			U-060CMNB/U-060CMBM			U-070CMNB/U-070CMBM			U-075CMNB/U-075CMBM				
<b>EC fan model w/o buffer / w buffer</b>	U-050CNB/U-050CNBM			U-060CNB/U-060CNBM			U-070CNB/U-070CNBM			U-075CNB/U-075CNBM				
<b>High pressure EC fan model w/o buffer / w buffer</b>	U-050CONB/U-050COBM			U-060CONB/U-060COBM			U-070CONB/U-070COBM			U-075CONB/U-075COBM				
Power supply	Voltage	V	400			400			400			400		
	Phase		Three phase			Three phase			Three phase			Three phase		
	Frequency	Hz	50			50			50			50		
Cooling capacity <sup>1)</sup>		kW	49,9			60,4			70,0			75,3		
Input power <sup>1)</sup>		kW	17,0			19,8			22,3			25,7		
Total EER 100 % <sup>1)</sup>			2,94			3,05			3,15			2,93		
<b>SEER <sup>2) 3)</sup></b>			<b>4,36</b>			<b>4,32</b>			<b>4,54</b>			<b>4,47</b>		
$\eta_{s,c}$ <sup>2) 3)</sup>		%	<b>171</b>			<b>170</b>			<b>178</b>			<b>176</b>		
Heating capacity <sup>4)</sup>		kW	53,5			61,5			71,7			80,0		
Input power <sup>4)</sup>		kW	17,3			19,5			22,2			24,7		
<b>SCOP <sup>3) 5)</sup></b>			<b>3,63</b>			<b>3,52</b>			<b>3,55</b>			<b>3,57</b>		
$\eta_{s,c}$ <sup>3) 5)</sup>		%	<b>142</b>			<b>138</b>			<b>139</b>			<b>140</b>		
Energy efficiency class [Scale A+++ to D] <sup>6)</sup>			A+			A+			A+			-		
Startup type			Direct			Direct			Direct			Direct		
Maximum operating current	A		43,3			52,7			60,0			69,4		
Startup current w/o softstarter / w softstarter	A		161/119			162/120			200/148			209/157		
Sound power [w AC/EC fans / w HP EC fans]		dB(A)	83,2/87,2			83,8/87,3			81,3/89,2			81,3/89,3		
Sound pressure [w AC/EC fans / w HP EC fans] <sup>7)</sup>		dB(A)	51,4/55,4			52,0/55,5			49,5/57,4			49,5/57,5		
Dimension [w AC fans] w/o buffer	HxWxD	mm	1986x2180x1160			1986x2180x1160			1986x2180x1160			1986x2180x1160		
Dimension [w AC fans] w buffer	HxWxD	mm	1986x2680x1160			1986x2680x1160			1986x2680x1160			1986x2680x1160		
Dimension [w EC/HP EC fans] w/o buffer	HxWxD	mm	2034x2180x1160			2034x2180x1160			2034x2180x1160			2034x2180x1160		
Dimension [w EC/HP EC fans] w buffer	HxWxD	mm	2034x2680x1160			2034x2680x1160			2034x2680x1160			2034x2680x1160		
Operating weight w/o buffer / w buffer		kg	527/1018			547/1038			621/1114			637/1130		
Refrigerant [R32]		kg	7,9			8,1			10,3			10,6		
Number of refrigerant circuit			1			1			1			1		
<b>Compressors</b>														
Number/Type			2/Scroll			2/Scroll			2/Scroll			2/Scroll		
Part load step	%		0/47/53/100			0/41/59/100			0/40/60/100			0/46/54/100		
Crankcase heater	W		70/70			70/66			70/66			66/66		
<b>Evaporator</b>														
Number/Type			1/Plate			1/Plate			1/Plate			1/Plate		
Nominal water flow	Cool / Heat	m <sup>3</sup> /h	8,7/9,3			10,6/10,7			12,2/12,5			13,2/13,9		
Water pressure drop	Cool / Heat	kPa	31,8/36,4			46,8/48,1			33,1/34,4			38,2/42,8		
Water volume		l	4,1			4,1			6,1			6,1		
Antifreeze heater	W		30			30			2x30			2x30		
<b>Coils</b>														
Number			1			1			2			2		
Frontal surface		m <sup>2</sup>	4,2			4,2			5,6			5,6		
Number of rows			2			2			2			2		
<b>Fans standard</b>														
			AC	EC	HP EC	AC	EC	HP EC	AC	EC	HP EC	AC	EC	HP EC
Number			1			1			2			2		
Air flow	m <sup>3</sup> /h		21200	21200	21200	21200	21200	21200	30000	30000	30000	30000	30000	30000
Rotation speed	r.p.m.		870	780	940	870	780	940	690	620	940	690	620	940
Input power (each fan)	W		2,1	1,1	1,6	2,1	1,1	1,6	1,0	0,6	1,9	1,0	0,6	1,9
Static pressure [HP EC]	Pa		85			85			180			180		
<b>Water connections</b>														
Type			Male gas threaded BSPP ISO 228			Male gas threaded BSPP ISO 228			Male gas threaded BSPP ISO 228			Male gas threaded BSPP ISO 228		
Inlet - Outlet - diameter	Evaporator	Inch	2 - 2			2 - 2			2 - 2			2 - 2		
Inlet - Outlet - diameter	Desuperheater	Inch	1 ¼ - 1 ¼			1 ¼ - 1 ¼			1 ¼ - 1 ¼			1 ¼ - 1 ¼		

1) Data refers to 7 °C leaving chilled water temperature and 35 °C condenser air temperature, according EN14511 standard. 2) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers. 3) Those are the data with variable flow. 4) Data refers to 45 °C leaving warm water temperature and 7 °C ambient coil air temperature with 87 % R.H., according EN14511 standard. 5) Following COMMISSION REGULATION (EU) No 813/2013 for low-temperature heat pumps. 6) Following Eurovent and COMMISSION REGULATION (EU) No 811/2013 for low-temperature heat pumps. Scale from A+++ to D, as of 26th September 2019. 7) Sound pressure levels calculated at 10 meters. Sound pressure levels refer to ISO standard 3744 with parallel piped shape.

\* w: with, w/o: without.

Accessories	
<b>PAW-SYSREMKIT1</b>	Remote control
<b>PAW-CM000SP041</b>	Cloudgate plug and play IP65 box mobile 4G Europe
<b>PAW-CM000K0001</b>	Remote antenna to improve signal coverage

Accessories	
<b>PAW-00SRTS011</b>	ECOi-W Cloud service fee. Prepaid subscription for 1 year
<b>PAW-SYSSOV4</b>	Shut off valves kit for model 50 - 75

HIGH SEER  
4,54

HIGH SCOP  
3,62

ErP

BLUEFIN

ULTIMATE CUSTOMISATION

AUTOMATIC FAN

HEATING MODE

COOLING MODE

BMS CONNECTIVITY



## U - 085/100/115/130 CM, CN, CO

Cooling capacity: 84,2 to 135,0 kW

Heating capacity: 86,2 to 137,0 kW

Customizable design gives high flexibility. Wide range of communication protocols fulfill the requirements in hotels, offices, industry applications.



Model	85			100			115			130				
AC fan model w/o buffer / w buffer	U-085CMNB/U-085CMBL			U-100CMNB/U-100CMBL			U-115CMNB/U-115CMBL			U-130CMNB/U-130CMBL				
EC fan model w/o buffer / w buffer	U-085CNB/U-085CNBL			U-100CNB/U-100CNBL			U-115CNB/U-115CNBL			U-130CNB/U-130CNBL				
High pressure EC fan model w/o buffer / w buffer	U-085COB/U-085COBL			U-100COB/U-100COBL			U-115COB/U-115COBL			U-130COB/U-130COBL				
Power supply	Voltage	V	400			400			400			400		
	Phase		Three phase			Three phase			Three phase			Three phase		
	Frequency	Hz	50			50			50			50		
Cooling capacity <sup>1)</sup>		kW	84,2			102,0			121,0			135,0		
Input power <sup>1)</sup>		kW	29,1			34,1			37,7			42,4		
Total EER 100 % <sup>1)</sup>			2,89			3,00			3,20			3,18		
SEER <sup>2) 3)</sup>			4,48			4,35			4,34			4,33		
$\eta_{s,c}$ <sup>2) 3)</sup>		%	176			171			171			170		
Heating capacity <sup>4)</sup>		kW	86,2			105,0			123,0			137,0		
Input power <sup>4)</sup>		kW	28,5			33,3			36,9			40,6		
SCOP <sup>3) 5)</sup>			3,57			3,63			3,60			3,73		
$\eta_{s,c}$ <sup>3) 5)</sup>		%	140			142			141			146		
Startup type			Direct			Direct			Direct			Direct		
Maximum operating current		A	75,0			86,6			93,8			104,2		
Startup current w/o softstarter / w softstarter		A	215/129			326/240			333/247			343/257		
Sound power (w AC/EC fans / w HP EC fans)		dB(A)	84,4/89,3			86,0/89,7			87,0/90,0			87,4/90,2		
Sound pressure (w AC/EC fans / w HP EC fans) <sup>7)</sup>		dB(A)	52,5/57,4			54,1/57,8			55,1/58,1			55,5/58,3		
Dimension (w AC fans) w/o buffer	H x W x D	mm	2286 x 2180 x 1160			2286 x 2180 x 1160			2286 x 2180 x 1160			2286 x 2180 x 1160		
Dimension (w AC fans) w buffer	H x W x D	mm	2286 x 2680 x 1160			2286 x 2680 x 1160			2286 x 2680 x 1160			2286 x 2680 x 1160		
Dimension (w EC/HP EC fans) w/o buffer	H x W x D	mm	2334 x 2180 x 1160			2334 x 2180 x 1160			2334 x 2180 x 1160			2334 x 2180 x 1160		
Dimension (w EC/HP EC fans) w buffer	H x W x D	mm	2334 x 2680 x 1160			2334 x 2680 x 1160			2334 x 2680 x 1160			2334 x 2680 x 1160		
Operating weight w/o buffer / w buffer		kg	701/1202			731/1232			813/1317			815/1319		
Refrigerant (R32)		kg	12,8			10,9			13,0			15,0		
Number of refrigerant circuit			1			1			1			1		
<b>Compressors</b>														
Number/Type			2/Scroll			2/Scroll			2/Scroll			2/Scroll		
Part load step		%	0/50/100			0/34/66/100			0/44/56/100			0/50/100		
Crankcase heater		W	66/66			66/66			66/66			66/66		
<b>Evaporator</b>														
Number/Type			1/Plate			1/Plate			1/Plate			1/Plate		
Nominal water flow	Cool / Heat	m <sup>3</sup> /h	14,2/14,7			17,1/18,0			19,9/20,9			22,0/22,3		
Water pressure drop	Cool / Heat	kPa	21,3/22,5			30,5/33,8			41,4/45,9			50,7/52,3		
Water volume		l	7,8			7,8			7,8			7,8		
Antifreeze heater		W	2 x 30			2 x 30			2 x 30			2 x 30		
<b>Coils</b>														
Number			2			2			2			2		
Frontal surface		m <sup>2</sup>	6,4			6,4			6,4			6,4		
Number of rows			2			2			3			3		
<b>Fans standard</b>														
			AC	EC	HP EC	AC	EC	HP EC	AC	EC	HP EC	AC	EC	HP EC
Number			2			2			2			2		
Air flow		m <sup>3</sup> /h	41300	41300	41300	41300	41300	41300	41300	41300	41300	41300	41300	41300
Rotation speed		r.p.m.	870	780	940	870	780	940	870	780	940	870	780	940
Input power (each fan)		W	2,1	0,8	1,6	2,1	0,8	1,6	1,6	1,0	1,6	1,6	1,0	1,6
Static pressure (HP EC)		Pa	85			85			85			85		
<b>Water connections</b>														
Type			Male gas threaded BSPP ISO 228			Male gas threaded BSPP ISO 228			Male gas threaded BSPP ISO 228			Male gas threaded BSPP ISO 228		
Inlet - Outlet - diameter	Evaporator	Inch	2 ½ - 2 ½			2 ½ - 2 ½			2 ½ - 2 ½			2 ½ - 2 ½		
Inlet - Outlet - diameter	Desuperheater	Inch	1 ¼ - 1 ¼			1 ¼ - 1 ¼			1 ¼ - 1 ¼			1 ¼ - 1 ¼		

1) Data refers to 7 °C leaving chilled water temperature and 35 °C condenser air temperature, according EN14511 standard. 2) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers. 3) Those are the data with variable flow. 4) Data refers to 45 °C leaving warm water temperature and 7 °C ambient coil air temperature with 87 % R.H., according EN14511 standard. 5) Following COMMISSION REGULATION (EU) No 813/2013 for low-temperature heat pumps. 6) Sound pressure levels calculated at 10 meters. Sound pressure levels refer to ISO standard 3744 with parallel piped shape. \* w: with, w/o: without.

Accessories	
PAW-SYSREMKIT1	Remote control
PAW-CM000SP041	Cloudgate plug and play IP65 box mobile 4G Europe
PAW-CM000K0001	Remote antenna to improve signal coverage

Accessories	
PAW-00SRTS011	ECOi-W Cloud service fee. Prepaid subscription for 1 year
PAW-SYSSOV5	Shut off valves kit for model 85 - 170





**U - 150/170 CM, CN, CO**

**Cooling capacity: 156,0 to 176,0 kW**  
**Heating capacity: 158,0 to 182,0 kW**

Heat pump chiller series with powerful operation by 2 scroll compressors. Maximum water outlet temperature in heating is up to 53 °C. Defrost limiting design ensures to provide stable hot water even at low ambient conditions.



Model		150	170				
<b>AC fan model w/o buffer / w buffer</b>		<b>U-150CMNB / U-150CMBL</b>	<b>U-170CMNB / U-170CMBL</b>				
<b>EC fan model w/o buffer / w buffer</b>		<b>U-150CNB / U-150CNBL</b>	<b>U-170CNB / U-170CNBL</b>				
<b>High pressure EC fan model w/o buffer / w buffer</b>		<b>U-150COB / U-150COBL</b>	<b>U-170COB / U-170COBL</b>				
Power supply	Voltage	V	400				
	Phase		Three phase				
	Frequency	Hz	50				
Cooling capacity <sup>1)</sup>	kW	156,0	176,0				
Input power <sup>1)</sup>	kW	47,9	55,5				
Total EER 100 % <sup>1)</sup>		3,26	3,17				
<b>SEER <sup>2) 3)</sup></b>		<b>4,61</b>	<b>4,62</b>				
$\eta_{s,c}$ <sup>2) 3)</sup>	%	<b>181</b>	<b>182</b>				
Heating capacity <sup>4)</sup>	kW	158,0	182,0				
Input power <sup>4)</sup>	kW	47,7	54,0				
<b>SCOP <sup>3) 5)</sup></b>		<b>3,65</b>	<b>3,60</b>				
$\eta_{s,c}$ <sup>3) 5)</sup>	%	<b>143</b>	<b>141</b>				
Startup type		Direct	Direct				
Maximum operating current	A	125	142				
Startup current w/o softstarter / w softstarter	A	363/277	380/294				
Sound power (w AC/EC fans / w HP EC fans)	dB(A)	88,9/91,6	91,1/92,3				
Sound pressure (w AC/EC fans / w HP EC fans) <sup>7)</sup>	dB(A)	57,0/59,7	59,2/60,4				
Dimension (w AC fans) w/o buffer	H x W x D	mm	2285 x 3789 x 1151				
Dimension (w AC fans) w buffer	H x W x D	mm	2285 x 3789 x 1151				
Dimension (w EC/HP EC fans) w/o buffer	H x W x D	mm	2333 x 3789 x 1151				
Dimension (w EC/HP EC fans) w buffer	H x W x D	mm	2333 x 3789 x 1151				
Operating weight w/o buffer / w buffer	kg	1265/1683	1279/1697				
Refrigerant (R32)	kg	19,2	20,0				
Number of refrigerant circuit		1	1				
<b>Compressors</b>							
Number/Type		2/Scroll	2/Scroll				
Part load step	%	0/45/55/100	0/38/62/100				
Crankcase heater	W	66/105	66/105				
<b>Evaporator</b>							
Number/Type		1/Plate	1/Plate				
Nominal water flow	Cool / Heat	m <sup>3</sup> /h	26,2/26,8				
Water pressure drop	Cool / Heat	kPa	36,2/37,8				
Water volume		l	11,5				
Antifreeze heater	W	130	130				
<b>Coils</b>							
Number		2,00	2,00				
Frontal surface	m <sup>2</sup>	8,7	8,7				
Number of rows		3	3				
<b>Fans standard</b>							
Number		AC	EC	HP EC	AC	EC	HP EC
Air flow	m <sup>3</sup> /h	56200	56200	56200	56200	56200	56200
Rotation speed	r.p.m.	870	780	940	870	780	940
Input power (each fan)	W	1,4	0,8	1,7	1,4	0,8	1,7
Static pressure (HP EC)	Pa		110			110	
<b>Water connections</b>							
Type		Male gas threaded BSPP ISO 229		Male gas threaded BSPP ISO 230			
Inlet - Outlet - diameter	Evaporator	Inch	2 1/2 - 2 1/2		2 1/2 - 2 1/2		
Inlet - Outlet - diameter	Desuperheater	Inch	1 1/4 - 1 1/4			1 1/4 - 1 1/4	

1) Data refers to 7 °C leaving chilled water temperature and 35 °C condenser air temperature, according EN14511 standard. 2) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers. 3) Those are the data with variable flow. 4) Data refers to 45 °C leaving warm water temperature and 7 °C ambient coil air temperature with 87 % R.H., according EN14511 standard. 5) Following COMMISSION REGULATION (EU) No 813/2013 for low-temperature heat pumps. 6) Sound pressure levels calculated at 10 meters. Sound pressure levels refer to ISO standard 3744 with parallel piped shape. \* w: with, w/o: without.

Accessories	
<b>PAW-SYSREMKIT1</b>	Remote control
<b>PAW-CM000SP041</b>	Cloudgate plug and play IP65 box mobile 4G Europe
<b>PAW-CM000K0001</b>	Remote antenna to improve signal coverage

Accessories	
<b>PAW-00SRTS011</b>	ECOi-W Cloud service fee. Prepaid subscription for 1 year
<b>PAW-SYSSOV5</b>	Shut off valves kit for model 85 - 170



# Options for R32 outdoor units

**Options table 50 - 85**

Option	Type	Ref.	Description	Model				
				50	60	70	75	85
1	Capacity							
2	Refrigerant, fan and compressor type	Q	R32, AC fan, fixed speed compressor - Cooling Only	•	•	•	•	•
		R	R32, EC fan, fixed speed compressor - Cooling Only	•	•	•	•	•
		S	R32, high pressure EC fan, fixed speed compressor - Cooling Only	•	•	•	•	•
		M	R32, AC fan, fixed speed compressor - Heat Pump	•	•	•	•	•
		N	R32, EC fan, fixed speed compressor - Heat Pump	•	•	•	•	•
3	Buffer tank option	O	R32, high pressure EC fan, fixed speed compressor - Heat Pump	•	•	•	•	•
		NB	No buffer	Std	Std	Std	Std	Std
		BM	Buffer tank (medium)	•	•	•	•	•
4	Pump option	BL	Buffer tank (large)					•
			No pump	Std	Std	Std	Std	Std
			Single pump low pressure	•	•	•	•	•
			Single pump high pressure	•	•	•	•	•
			Double pump low pressure	•	•	•	•	•
5	Pump drive option		Double pump high pressure	•	•	•	•	•
			Pump drive - fixed speed	Std	Std	Std	Std	Std
			Pump drive - variable twin speed (single pump)	•	•	•	•	•
			Pump drive - variable twin speed (double pump)	•	•	•	•	•
			Pump drive - constant outlet pressure (single pump)	•	•	•	•	•
6	Hydraulic options		Pump drive - constant outlet pressure (double pump)	•	•	•	•	•
			Flow switch	Std	Std	Std	Std	Std
			Low water pressure sensor <sup>1)</sup>	•	•	•	•	•
			Desuperheater	•	•	•	•	•
7	Control options		Water isolation valves	•	•	•	•	•
			Standard BMS option (Modbus RTU)	Std	Std	Std	Std	Std
			Modbus TCP/IP	Std	Std	Std	Std	Std
			BACnet MSTP	Std	Std	Std	Std	Std
			BACnet IP	Std	Std	Std	Std	Std
			Digital input for: Cooling/heating or Night mode or Load Shedding	Std	Std	Std	Std	Std
8	Electrical options		Energy meter	•	•	•	•	•
			Automatic circuit breaker	Std	Std	Std	Std	Std
			Phase sequence control	Std	Std	Std	Std	Std
			Fan speed controller	•	•	•	•	•
			Power supply w neutral <sup>2)</sup>	S0	S0	S0	S0	S0
			Electrical backup heater 12 kW - Heat Pump <sup>3)</sup>	•	•	•	•	•
			Electrical backup heater 24 kW - Heat Pump <sup>3)</sup>	•	•	•	•	•
			Electrical backup heater 36 kW - Heat Pump <sup>3)</sup>	•	•	•	•	•
			Soft starter	•	•	•	•	•
			Electronic expansion valves	Std	Std	Std	Std	Std
9	Refrigerant options		Refrigerant gauges (HP and LP manometers)	•	•	•	•	•
			Aluminium finned coil - Cooling Only	Std	Std	Std	Std	Std
10	Ambient options		Bluefin coil treatment - Heat Pump	Std	Std	Std	Std	Std
			Finned coil treatment - epoxy	•	•	•	•	•
			Finned coil Blygold treatment	S0	S0	S0	S0	S0
			Outdoor coil protection grid	•	•	•	•	•
			Rubber pads (supplied loose)	•	•	•	•	•
			Spring damper (supplied loose)	•	•	•	•	•
			Container transport	•	•	•	•	•
			Acoustically insulating compressor jacket	•	•	•	•	•

1) Low water pressure sensor is supplied loose when selected as an option without pump and hydraulic kit. To be installed on site.

2) Systems are supplied without neutral terminal as standard, please contact local sales representative.

3) Electrical backup heaters can only be selected when combined with buffer tank option.

Std: Standard item included.

•: Optional item that can be selected.

S0: Special order item.



## Options table 100 - 170

Option	Type	Ref.	Description	Model				
				100	115	130	150	170
1	Capacity							
2	Refrigerant, fan and compressor type	Q	R32, AC fan, fixed speed compressor - Cooling Only	•	•	•	•	•
		R	R32, EC fan, fixed speed compressor - Cooling Only	•	•	•	•	•
		S	R32, high pressure EC fan, fixed speed compressor - Cooling Only	•	•	•	•	•
		M	R32, AC fan, fixed speed compressor - Heat Pump	•	•	•	•	•
		N	R32, EC fan, fixed speed compressor - Heat Pump	•	•	•	•	•
		O	R32, high pressure EC fan, fixed speed compressor - Heat Pump	•	•	•	•	•
3	Buffer tank option	NB	No buffer	Std	Std	Std	Std	Std
		BL	Buffer tank (large)	•	•	•	•	•
4	Pump option		No pump <sup>1)</sup>	Std	Std	Std	Std	Std
			Single pump low pressure	•	•	•	•	•
			Single pump high pressure	•	•	•	•	•
			Double pump low pressure	•	•	•	•	•
			Double pump high pressure	•	•	•	•	•
			Pump drive - fixed speed <sup>2)</sup>	Std	Std	Std	Std	Std
5	Pump drive option		Pump drive - variable twin speed (single pump)	•	•	•	•	•
			Pump drive - variable twin speed (double pump)	•	•	•	•	•
			Pump drive - constant outlet pressure (single pump)	•	•	•	•	•
			Pump drive - constant outlet pressure (double pump)	•	•	•	•	•
6	Hydraulic options		Flow switch	Std	Std	Std	Std	Std
			Low water pressure sensor <sup>1)</sup>	•	•	•	•	•
			Desuperheater	•	•	•	•	•
			Water isolation valves	•	•	•	•	•
7	Control options		Standard BMS option (Modbus RTU)	Std	Std	Std	Std	Std
			Modbus TCP/IP	Std	Std	Std	Std	Std
			BACnet MSTP	Std	Std	Std	Std	Std
			BACnet IP	Std	Std	Std	Std	Std
			Digital input for: Cooling/heating or Night mode or Load Shedding	Std	Std	Std	Std	Std
			Energy meter	•	•	•	•	•
8	Electrical options		Automatic circuit breaker	Std	Std	Std	Std	Std
			Phase sequence control	Std	Std	Std	Std	Std
			Power supply w neutral <sup>2)</sup>	S0	S0	S0		
			Power factor correction capacitors				•	•
			Electrical backup heater 24 kW - Heat Pump <sup>3)</sup>	•	•	•		
			Electrical backup heater 36 kW - Heat Pump <sup>3)</sup>	•	•	•		
9	Refrigerant options		Soft starter	•	•	•	•	•
			Electronic expansion valves	Std	Std	Std	Std	Std
10	Ambient options		Refrigerant gauges (HP and LP manometers)	•	•	•	•	•
			Aluminium finned coil - Cooling Only	Std	Std	Std	Std	Std
			Bluefin coil treatment - Heat Pump	Std	Std	Std	Std	Std
			Finned coil treatment - epoxy	•	•	•	•	•
			Finned coil Blygold treatment	S0	S0	S0	S0	S0
			Outdoor coil protection grid	•	•	•	•	•
			Rubber pads (supplied loose)	•	•	•	•	•
			Spring damper (supplied loose)	•	•	•	•	•
	Container transport	•	•	•	•	•		
	Acoustically insulating compressor jacket	•	•	•	•	•		

1) Low water pressure sensor is supplied loose when selected as an option without pump and hydraulic kit. To be installed on site.

2) Systems are supplied without neutral terminal as standard, please contact local sales representative.

3) Electrical backup heaters can only be selected when combined with buffer tank option.

Std: Standard item included.

•: Optional item that can be selected.

S0: Special order item.

# ECOi-W R410A, the solution for hotels, offices and industry

ECOi-W provides the optimal performance in any climate.



## 1 High energy saving and comfort

- High SEER / SCOP
- Quiet operation
- Integration with ECOi VRF systems via BMS control
- Centralized remote management system

## 2 High flexibility

- Capacity range from 20 to 210 kW
- Customisable design
- Operating range: -17 °C (heating) to 50 °C (cooling)
- Wide range of hydraulic options
- Wide range of communication protocols

## 3 High quality

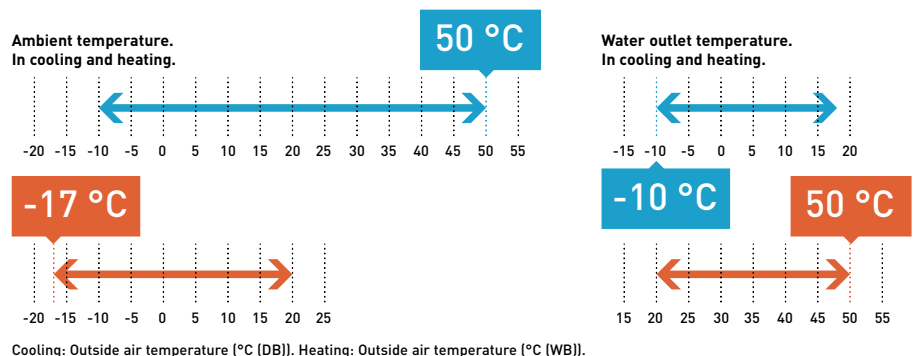
- Defrost limiting coil design (140 to 210 kW)
- Optimised design for service and maintenance
- Compact footprint

### Operating conditions

Panasonic ECOi-W provides a wide operating range from -17 °C in heating to 50 °C in cooling.

### Water outlet temperature in cooling.

A water outlet temperature of -10 °C in cooling offers a uniqueness to the ECOi-W Series, which can ensure the operation temperature of the process equipment in factories.



### Class A pump

Units can be equipped with an efficient pump. A wide range of single and double pump, plus pump drive option is available.

### BP heat exchanger

Very compact & long durability Braze Plate Heat Exchanger. Unique design for the size 140 - 210 improving frost protection and efficiency.

### Axial AC

The microprocessor control automatically adjusts the fan speed as a function of the operating conditions.



ECOi-W R410A line-up

ECOi-W R410A size	20	25	30	35	40	45	55	65	75	90	105	125	140	150	170	190	210	
Cooling only range																		
	SEER	4,78	4,38	4,43	4,43	4,48	4,40	4,53	4,53	4,68	4,45	4,50	4,55	4,40	4,45	4,38	4,40	4,25
Heat pump range																		
	SEER <sup>1)</sup>	4,68	4,31	4,28	4,25	4,33	4,20	4,41	4,51	4,63	4,40	4,44	4,49	4,39	4,36	4,31	4,23	4,28
	SCOP <sup>1)</sup>	3,50	3,38	3,45	3,50	3,50	3,38	3,38	3,55	3,53	3,40	3,43	3,43	3,30	3,33	3,30	3,28	3,23
	Energy efficiency class (heating) <sup>1) 2)</sup>	A+	A+	A+	A+	A+	A+	A+	A+	-	-	-	-	-	-	-	-	-
	Dimension (HxWxD)																	

1) Those are the data with variable flow. 2) Following Eurovent and COMMISSION REGULATION (EU) No 811/2013 for low-temperature heat pumps. Scale from A+++ to D, as of 26th September 2019.

Simple user friendly control

In addition to basic control functions...

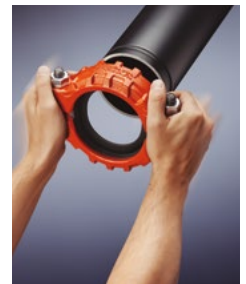
- Intelligent logic control for inlet water temperature
- Night setback operation to reduce electrical consumption and noise
- Automatic test operation at the push of a button



Victaulic® grooved connection

Victaulic® Installation-Ready™ couplings assure proper piping installation.

Optimised design to reduce installation effects, including noise and vibration attenuation.

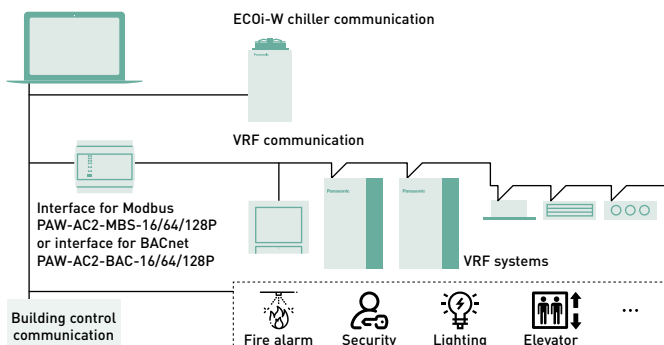
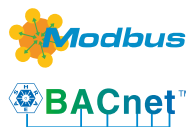


Model type supplied may vary.

\* Available in 140-210.  
\*\* Threaded Victaulic® connection kit (PAW-SYSVICTH) is optional.

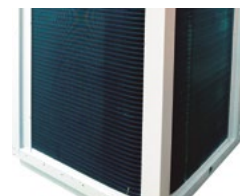
BMS integration

Modbus RTU as standard.  
Modbus TCP/IP, BACnet IP and BACnet MSTP as optional availability.  
Integrated systems with ECOi-W Chiller, VRF and BMS control can be offered.



Bluefin for more durability

Bluefin hygrophillic coating improves defrost performance and reduces damage for a longer life time.



\* Available in heat pump range.



Low noise

ECOi-W series is equipped with the compressor phonic insulation box as a standard.

\* Standard in 20-40, 140-210. Optional in 45-125.



# Range of ECOi-W R410A outdoor units

Page	Outdoor units	20 kW	25 kW	30 kW	35 kW	40 kW	45 kW	55 kW	65 kW	75 kW	
	ECOi-W 20 to 40										
<b>P. 34</b>	Cooling only	U-020CVNB U-020CVBS	U-025CVNB U-025CVBS	U-030CVNB U-030CVBS	U-035CVNB U-035CVBS	U-040CVNB U-040CVBS					
<b>P. 40</b>	Heat pump	U-020CWNB U-020CWBS	U-025CWNB U-025CWBS	U-030CWNB U-030CWBS	U-035CWNB U-035CWBS	U-040CWNB U-040CWBS					
	ECOi-W 45 to 75										
<b>P. 35</b>	Cooling only					U-045CVNB U-045CVBM	U-055CVNB U-055CVBM	U-065CVNB U-065CVBM	U-075CVNB U-075CVBM		
<b>P. 41</b>	Heat pump					U-045CWNB U-045CWBM	U-055CWNB U-055CWBM	U-065CWNB U-065CWBM	U-075CWNB U-075CWBM		
	ECOi-W 90 to 125										
<b>P. 36</b>	Cooling only										
<b>P. 42</b>	Heat pump										
	ECOi-W 140 to 210										
<b>P. 37</b>	Cooling only										
<b>P. 43</b>	Heat pump										



90 kW

105 kW

125 kW

140 kW

150 kW

170 kW

190 kW

210 kW



U-090CVNB  
U-090CVBM

U-105CVNB  
U-105CVBM

U-125CVNB  
U-125CVBM

U-090CWNB  
U-090CWBM

U-105CWNB  
U-105CWBM

U-125CWNB  
U-125CWBM



U-140CVNB  
U-140CVBL

U-150CVNB  
U-150CVBL

U-170CVNB  
U-170CVBL

U-190CVNB  
U-190CVBL

U-210CVNB  
U-210CVBL

U-140CWNB  
U-140CWBL

U-150CWNB  
U-150CWBL

U-170CWNB  
U-170CWBL

U-190CWNB  
U-190CWBL

U-210CWNB  
U-210CWBL



## Features of ECOi-W R410A cooling only outdoor units

### ECOi-W R410A cooling only outdoor units.

- High seasonal efficiency
- Ambient temperature operating range: -10 to +50 °C
- Water outlet temperature range: -10 to +18 °C
- Optimised design for service and maintenance
- Simple user friendly control as standard
- Modbus RTU as standard

### Technical focus:

- Chiller type: cooling only
- Refrigerant type: R410A
- Heat exchanger: stainless steel plate heat exchanger
- Flow switch, water safety and air purge valves included
- Water filter included (mandatory to be installed on site)
- Night mode setting to save energy and reduce noise level
- Water compensation curve control

### U - 020/025/030/035/040 CV

- Super quiet operation

### Technical focus:

- Compressor type (number): Scroll compressors (2)
- Refrigerant circuit: 1
- Fan type (number): axial fan (1)

### U - 045/055/065/075 CV

- Optional extra-low noise kit available

### Technical focus:

- Compressor type (number): Scroll compressors (2)
- Refrigerant circuit: 1
- Fan type (number): axial fan (1 for 45/55, 2 for 65/75)

### U - 090/105/125 CV

- Optional extra-low noise kit available

### Technical focus:

- Compressor type (number): Scroll compressors (2)
- Refrigerant circuit: 1
- Fan type (number): axial fan (2)

### U - 140/150/170/190/210 CV

- Super quiet operation
- Victaulic® water connections
- Modbus TCP/IP as standard

### Technical focus:

- Compressor type (number): Scroll compressors (4)
- Refrigerant circuit: 2
- Fan type (number): axial fan (4)
- Remote LAN connection as standard



REFER TO PAGE 44 TO SEE MORE  
OPTIONS FOR R410A OUTDOOR UNITS**Available options for U - 020/025/030/035/040 CV**

Options				
Pump	Pump drive	Hydraulic options	Ambient options	Miscellaneous options
Single pump (as standard)	Fixed speed <sup>1)</sup>	Low water pressure sensor	Finned coil treatment - epoxy	Soft starter
	Variable twin speed	Water isolation valves	Rubber pads	Power supply w/o neutral
	Constant outlet pressure		Spring damper	Modbus TCP/IP
	Constant differential pressure		All seasons	BACnet MSTP
			High pressure fan <sup>2)</sup>	BACnet IP

1) Available for non-EU installation. 2) Available on models 25 - 40.

**Available options for U - 045/055/065/075 CV**

Options				
Pump	Pump drive	Hydraulic options	Ambient options	Miscellaneous options
Single pump	Fixed speed <sup>1)</sup>	Low water pressure sensor	Finned coil treatment - epoxy	Soft starter
Double pump	Variable twin speed	Water isolation valves	Outdoor coil protection grid	Power supply w/o neutral
	Constant outlet pressure		Rubber pads	Modbus TCP/IP
	Constant differential pressure		Spring damper	BACnet MSTP
			All seasons fan control	BACnet IP
			Extra-low noise kit	Container transport
		High pressure fan	Refrigerant gauge	
				Desuperheater

1) Available for non-EU installation.

**Available options for U - 090/105/125 CV**

Options				
Pump	Pump drive	Hydraulic options	Ambient options	Miscellaneous options
Single pump	Fixed speed <sup>1)</sup>	Low water pressure sensor	Finned coil treatment - epoxy	Soft starter
Double pump	Variable twin speed	Water isolation valves	Outdoor coil protection grid	Power supply w/o neutral
	Constant outlet pressure			Rubber pads
		Constant differential pressure		Spring damper
			Extra-low noise kit	Container transport
			High pressure fan	Refrigerant gauge
				Desuperheater

1) Available for non-EU installation.

**Available options for U - 140/150/170/190/210 CV**

Options					
Pump	Pump drive	Hydraulic options	Ambient options	Miscellaneous options	
Single pump low pressure	Fixed speed <sup>1)</sup>	Low water pressure sensor	Finned coil treatment - epoxy	Soft starter	
Single pump high pressure	Variable twin speed	Water isolation valves	Outdoor coil protection grid	Power supply w/o neutral	
Double pump low pressure	Variable capacity	Hydraulic gauges	Rubber pads	Modbus TCP/IP	
Double pump high pressure	Constant outlet pressure			Spring damper	BACnet IP
			Constant differential pressure	All seasons fan control	Container transport
			High pressure fan <sup>2)</sup>	Refrigerant gauge	

1) Available for non-EU installation. 2) Available on special order only, please contact your local Panasonic sales representative.



## U - 020/025/030/035/040 CV

Cooling capacity: 19,2 to 39,0 kW

Compact and highly efficient chiller series, with SEER up to 4,78.



Model		20	25	30	35	40	
<b>Standard without buffer tank</b>		<b>U-020CVNB</b>	<b>U-025CVNB</b>	<b>U-030CVNB</b>	<b>U-035CVNB</b>	<b>U-040CVNB</b>	
<b>With buffer tank</b>		<b>U-020CVBS</b>	<b>U-025CVBS</b>	<b>U-030CVBS</b>	<b>U-035CVBS</b>	<b>U-040CVBS</b>	
Power supply	Voltage	V	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50
Cooling capacity <sup>1)</sup>	kW	19,2	24,3	27,1	36,7	39,0	
Input power <sup>1)</sup>	kW	5,9	7,7	9,3	12,2	13,0	
Total EER 100 % <sup>1)</sup>		3,25	3,17	2,90	3,01	3,00	
<b>SEER <sup>2)</sup></b>		<b>4,78</b>	<b>4,38</b>	<b>4,43</b>	<b>4,43</b>	<b>4,48</b>	
$\eta_{s,c}$ <sup>2)</sup>	%	<b>188</b>	<b>172</b>	<b>174</b>	<b>174</b>	<b>176</b>	
Startup type		Direct	Direct	Direct	Direct	Direct	
Maximum operating current	A	17,7	22,2	24,3	31,8	33,8	
Startup current w/o softstarter / w softstarter	A	53/28	64/35	77/49	118/53	119/54	
Sound power (w standard fans)	dB(A)	75,0	75,0	75,0	76,0	76,0	
Sound pressure (w standard fans) <sup>3)</sup>	dB(A)	42,8	42,8	42,8	43,8	43,8	
Dimension (w standard fans) w/o buffer	H x W x D	mm	1983 x 1000 x 1000	1983 x 1000 x 1000	1983 x 1000 x 1000	1983 x 1000 x 1000	
Dimension (w standard fans) w buffer	H x W x D	mm	1983 x 1000 x 1507	1983 x 1000 x 1507	1983 x 1000 x 1507	1983 x 1000 x 1507	
Weight (w 1 pump) w/o buffer	kg	265	275	305	315	320	
Weight (w 1 pump) w buffer	kg	330	340	370	380	385	
Refrigerant (R410A)	kg	6,5	8,4	8,4	9,1	9,2	
Number of refrigerant circuit		1	1	1	1	1	
<b>Compressors</b>							
Number		2	2	2	2	2	
Type		Scroll	Scroll	Scroll	Scroll	Scroll	
Part load step	%	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100	
Crankcase heater	W	2x40	2x40	2x49	2x49	2x49	
<b>Evaporator</b>							
Number		1	1	1	1	1	
Type		Plate	Plate	Plate	Plate	Plate	
Nominal water flow (cooling)	m <sup>3</sup> /h	3,35	4,36	4,64	6,16	6,44	
Water pressure drop (cooling)	kPa	23	37	22	37	40	
Water volume	l	1,78	1,78	2,55	2,55	2,55	
Antifreeze heater	W	30	30	30	30	30	
<b>Coils</b>							
Number		1	1	1	1	1	
Frontal surface	m <sup>2</sup>	2,4	2,4	2,4	2,8	2,8	
Number of rows		2	2	2	2	2	
<b>Fans standard</b>							
Number		1	1	1	1	1	
Air flow	m <sup>3</sup> /h	9000	13000	13000	16000	16000	
Rotation speed	r.p.m.	900	900	900	650	650	
Input power (each fan)	W	620	940	940	930	930	
<b>Water connections</b>							
Type		Male gas threaded BSPP ISO 228	Male gas threaded BSPP ISO 228	Male gas threaded BSPP ISO 228	Male gas threaded BSPP ISO 228	Male gas threaded BSPP ISO 228	
Inlet - diameter	Inch	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	
Outlet - diameter	Inch	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	

1) Data refers to 7 °C leaving chilled water temperature and 35 °C condenser air temperature, according EN14511 standard. 2) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers. 3) Sound pressure levels calculated at 10 meters. Sound pressure levels refer to ISO standard 3744 with parallel piped shape.

\* w: with, w/o: without. \*\* The data are calculated with variable flow.

Accessories	
<b>PAW-SYSREMKIT</b>	Remote control
<b>PAW-CM000SP041</b>	Cloudgate plug and play IP65 box mobile 4G Europe
<b>PAW-CM000K001</b>	Remote antenna to improve signal coverage

Accessories	
<b>PAW-00SRTS011</b>	ECOi-W Cloud service fee. Prepaid subscription for 1 year
<b>PAW-SYSSOV1</b>	Shut off valves kit for model 20 - 40



**U - 045/055/065/075 CV****Cooling capacity: 45,3 to 73,1 kW**

High seasonal efficiency and wide range options to meet the exact requirements of your project.



Model		45	55	65	75	
<b>Standard without buffer tank</b>		<b>U-045CVNB</b>	<b>U-055CVNB</b>	<b>U-065CVNB</b>	<b>U-075CVNB</b>	
<b>With buffer tank</b>		<b>U-045CVBM</b>	<b>U-055CVBM</b>	<b>U-065CVBM</b>	<b>U-075CVBM</b>	
Power supply	Voltage	V	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50
Cooling capacity <sup>1)</sup>	kW	45,3	52,0	66,1	73,1	
Input power <sup>1)</sup>	kW	15,4	17,6	21,7	24,0	
Total EER 100 % <sup>1)</sup>		2,95	2,96	3,05	3,05	
<b>SEER <sup>2)</sup></b>		<b>4,40</b>	<b>4,53</b>	<b>4,53</b>	<b>4,68</b>	
$\eta_{s,c}$ <sup>2)</sup>	%	<b>173</b>	<b>178</b>	<b>178</b>	<b>184</b>	
Startup type		Direct	Direct	Direct	Direct	
Maximum operating current	A	40,2	44,2	58,4	64,4	
Startup current w/o softstarter / w softstarter	A	133,2/65,8	140,2/72,8	201,4/101,0	206,4/106,0	
Sound power (w standard fans)	dB(A)	80,0	80,0	80,0	80,0	
Sound pressure (w standard fans) <sup>3)</sup>	dB(A)	47,8	47,8	47,8	47,8	
Dimension (w standard fans) w/o buffer	H x W x D	mm	1986 x 2180 x 1160	1986 x 2180 x 1160	1986 x 2180 x 1160	1986 x 2180 x 1160
Dimension (w standard fans) w buffer	H x W x D	mm	1986 x 2680 x 1160	1986 x 2680 x 1160	1986 x 2680 x 1160	1986 x 2680 x 1160
Weight (w 1 pump) w/o buffer	kg	515	520	580	590	
Weight (w 1 pump) w buffer	kg	675	680	740	750	
Refrigerant (R410A)	kg	14,5	14,9	18,9	19,0	
Number of refrigerant circuit		1	1	1	1	
<b>Compressors</b>						
Number		2	2	2	2	
Type		Scroll	Scroll	Scroll	Scroll	
Part load step	%	0/50/100	0/43/57/100	0/40/60/100	0/45/55/100	
Crankcase heater	W	2 x 66	2 x 66	2 x 66	2 x 66	
<b>Evaporator</b>						
Number		1	1	1	1	
Type		Plate	Plate	Plate	Plate	
Nominal water flow (cooling)	m <sup>3</sup> /h	8,06	9,18	11,30	12,31	
Water pressure drop (cooling)	kPa	30	35	28	37	
Water volume	l	4,10	4,10	6,10	6,10	
Antifreeze heater	W	30	30	2 x 30	2 x 30	
<b>Coils</b>						
Number		1	1	2	2	
Frontal surface	m <sup>2</sup>	4,20	4,20	5,55	5,55	
Number of rows		2	2	2	2	
<b>Fans standard</b>						
Number		1	1	2	2	
Air flow	m <sup>3</sup> /h	22500	22500	30000	30000	
Rotation speed	r.p.m.	790	790	650	650	
Input power (each fan)	W	1650	1650	930	930	
<b>Water connections</b>						
Type		Male gas threaded BSPP ISO 228	Male gas threaded BSPP ISO 228	Male gas threaded BSPP ISO 228	Male gas threaded BSPP ISO 228	
Inlet - diameter	Inch	2	2	2	2	
Outlet - diameter	Inch	2	2	2	2	

1) Data refers to 7 °C leaving chilled water temperature and 35 °C condenser air temperature, according EN14511 standard. 2) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers. 3) Sound pressure levels calculated at 10 meters. Sound pressure levels refer to ISO standard 3744 with parallel piped shape.  
\* w: with, w/o: without. \*\* The data are calculated with variable flow.

Accessories	
<b>PAW-SYSREMKIT</b>	Remote control
<b>PAW-CM000SP041</b>	Cloudgate plug and play IP65 box mobile 4G Europe
<b>PAW-CM000K0001</b>	Remote antenna to improve signal coverage

Accessories	
<b>PAW-00SRTS011</b>	ECOi-W Cloud service fee. Prepaid subscription for 1 year
<b>PAW-SYSSOV2</b>	Shut off valves kit for model 45 - 75





## U - 090/105/125 CV

Cooling capacity: 90,7 to 123,0 kW

Customizable design gives high flexibility. Wide range of communication protocols fulfill the requirements in hotels, offices, industry applications.



Model	90		105		125	
<b>Standard without buffer tank</b>	<b>U-090CVNB</b>		<b>U-105CVNB</b>		<b>U-125CVNB</b>	
<b>With buffer tank</b>	<b>U-090CVBM</b>		<b>U-105CVBM</b>		<b>U-125CVBM</b>	
Power supply	Voltage	V	400		400	
	Phase		Three phase		Three phase	
	Frequency	Hz	50		50	
Cooling capacity <sup>1)</sup>		kW	90,7	104,0	123,0	
Input power <sup>1)</sup>		kW	30,6	34,9	40,6	
Total EER 100 % <sup>1)</sup>			2,96	2,98	3,03	
<b>SEER <sup>2)</sup></b>			<b>4,45</b>	<b>4,50</b>	<b>4,55</b>	
<b>η<sub>s,c</sub> <sup>2)</sup></b>		%	<b>175</b>	<b>177</b>	<b>179</b>	
Startup type			Direct		Direct	
Maximum operating current		A	77,9		86,0	
Startup current w/o softstarter / w softstarter		A	264,9/127,3		312,0/145,8	
Sound power (w standard fans)		dB(A)	83,0		83,0	
Sound pressure (w standard fans) <sup>3)</sup>		dB(A)	50,8		50,8	
Dimension (w standard fans) w/o buffer	H x W x D	mm	2286 x 2180 x 1160		2286 x 2180 x 1160	
Dimension (w standard fans) w buffer	H x W x D	mm	2286 x 2680 x 1160		2286 x 2680 x 1160	
Weight (w 1 pump) w/o buffer		kg	750		855	
Weight (w 1 pump) w buffer		kg	910		1015	
Refrigerant (R410A)		kg	22,0		27,0	
Number of refrigerant circuit			1		1	
<b>Compressors</b>						
Number			2		2	
Type			Scroll		Scroll	
Part load step		%	0/45/55/100		0/38/62/100	
Crankcase heater		W	66/82		66/95	
<b>Evaporator</b>						
Number			1		1	
Type			Plate		Plate	
Nominal water flow (cooling)		m <sup>3</sup> /h	15,73		18,25	
Water pressure drop (cooling)		kPa	26		34	
Water volume		l	10,80		10,80	
Antifreeze heater		W	2 x 30		2 x 30	
<b>Coils</b>						
Number			2		2	
Frontal surface		m <sup>2</sup>	6,4		6,4	
Number of rows			2		3	
<b>Fans standard</b>						
Number			2		2	
Air flow		m <sup>3</sup> /h	42000		42000	
Rotation speed		r.p.m.	790		790	
Input power (each fan)		W	1650		1650	
<b>Water connections</b>						
Type			Male gas threaded BSPP ISO 228	Male gas threaded BSPP ISO 228	Male gas threaded BSPP ISO 228	
Inlet - diameter		Inch	2 1/2		2 1/2	
Outlet - diameter		Inch	2 1/2		2 1/2	

1) Data refers to 7 °C leaving chilled water temperature and 35 °C condenser air temperature, according EN14511 standard. 2) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers. 3) Sound pressure levels calculated at 10 meters. Sound pressure levels refer to ISO standard 3744 with parallel piped shape.

\* w: with, w/o: without. \*\* The data are calculated with variable flow.

Accessories	
<b>PAW-SYSREMKIT</b>	Remote control
<b>PAW-CM000SP041</b>	Cloudgate plug and play IP65 box mobile 4G Europe
<b>PAW-CM000K001</b>	Remote antenna to improve signal coverage

Accessories	
<b>PAW-00SRTS011</b>	ECOi-W Cloud service fee. Prepaid subscription for 1 year
<b>PAW-SYSSOV3</b>	Shut off valves kit for model 90 - 125



**U - 140/150/170/190/210 CV****Cooling capacity: 132,0 to 208,0 kW**

Powerful and efficient operation with 4 scroll compressors and superior flexibility with plug and play hydraulic options.



Model		140	150	170	190	210
<b>Standard without buffer tank</b>		<b>U-140CVNB</b>	<b>U-150CVNB</b>	<b>U-170CVNB</b>	<b>U-190CVNB</b>	<b>U-210CVNB</b>
<b>With buffer tank</b>		<b>U-140CVBL</b>	<b>U-150CVBL</b>	<b>U-170CVBL</b>	<b>U-190CVBL</b>	<b>U-210CVBL</b>
Power supply	Voltage	V	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50
Cooling capacity <sup>1)</sup>	kW	132,0	146,0	164,0	181,0	208,0
Input power <sup>1)</sup>	kW	43,1	47,6	54,8	61,1	69,8
Total EER 100 % <sup>1)</sup>		3,06	3,07	2,99	2,96	2,98
<b>SEER <sup>2)</sup></b>		<b>4,40</b>	<b>4,45</b>	<b>4,38</b>	<b>4,40</b>	<b>4,25</b>
$\eta_{s,c}$ <sup>2)</sup>	%	<b>173</b>	<b>175</b>	<b>172</b>	<b>173</b>	<b>167</b>
Startup type		Direct	Direct	Direct	Direct	Direct
Maximum operating current	A	108,0	119,0	136,0	153,0	170,0
Startup current w/o softstarter / w softstarter	A	251/130	262/141	324/161	341/178	396/201
Sound power (w standard fans)	dB(A)	85,4	85,4	87,0	88,1	88,1
Sound pressure (w standard fans) <sup>3)</sup>	dB(A)	53,4	53,4	55,0	56,1	56,1
Dimension (w standard fans) w/o buffer	H x W x D	mm	2295 x 2856 x 2210	2295 x 2856 x 2210	2295 x 2856 x 2210	2295 x 2856 x 2210
Dimension (w standard fans) w buffer	H x W x D	mm	2295 x 3666 x 2210	2295 x 3666 x 2210	2295 x 3666 x 2210	2295 x 3666 x 2210
Weight (w 1 low Pa pump) w/o buffer	kg	1510	1520	1610	1680	1940
Weight (w 1 low Pa pump) w buffer	kg	1640	1650	1740	1810	2070
Refrigerant (R410A)	kg	2 x 24,7	2 x 24,7	24,7/33,3	2 x 33,3	2 x 33,3
Number of refrigerant circuit		2	2	2	2	2
<b>Compressors</b>						
Number		4	4	4	4	4
Type		Scroll	Scroll	Scroll	Scroll	Scroll
Part load step	%	0 / 24 / 26 / 48 / 50 / 52 / 74 / 76 / 100	0 / 23 / 27 / 46 / 50 / 54 / 73 / 77 / 100	0 / 20 / 24 / 44 / 45 / 55 / 69 / 80 / 100	0 / 22 / 28 / 44 / 50 / 56 / 72 / 78 / 100	0 / 19 / 31 / 38 / 50 / 62 / 69 / 81 / 100
Crankcase heater	W	4 x 66	4 x 66	3 x 66/82	2 x 82/2 x 66	2 x 95/2 x 66
<b>Evaporator</b>						
Number		1	1	1	1	1
Type		Plate	Plate	Plate	Plate	Plate
Nominal water flow (cooling)	m <sup>3</sup> /h	21,56	23,65	25,95	30,24	33,62
Water pressure drop (cooling)	kPa	33	39	24	32	40
Water volume	l	8,49	8,49	12,21	12,21	12,21
Antifreeze heater	W	60	60	120	120	120
<b>Coils</b>						
Number		4	4	4	4	4
Frontal surface	m <sup>2</sup>	11,88	11,88	11,88	11,88	11,88
Number of rows		2+2	2+2	2+3	3+3	3+3
<b>Fans standard</b>						
Number		4	4	4	4	4
Air flow	m <sup>3</sup> /h	56000	56000	71000	86000	83000
Rotation speed	r.p.m.	900	900	900	900	900
Input power (each fan)	W	940	940	940 - 1650	1650	1650
<b>Water connections</b>						
Type		Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Inlet - diameter	Inch	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
Outlet - diameter	Inch	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2

1) Data refers to 7 °C leaving chilled water temperature and 35 °C condenser air temperature, according EN14511 standard. 2) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers. 3) Sound pressure levels calculated at 10 meters. Sound pressure levels refer to ISO standard 3744 with parallel piped shape.

\* w: with, w/o: without. \*\* The data are calculated with variable flow.

Accessories	
<b>PAW-SYSREMKIT</b>	Remote control
<b>PAW-CM000SP041</b>	Cloudgate plug and play IP65 box mobile 4G Europe
<b>PAW-CM000K001</b>	Remote antenna to improve signal coverage

Accessories	
<b>PAW-00SRTS011</b>	ECOi-W Cloud service fee. Prepaid subscription for 1 year
<b>PAW-SYSVICTH</b>	Victaulic® connection kit for model 140 - 210





# Features of ECOi-W R410A heat pump outdoor units

## ECOi-W R410A heat pump outdoor units.

- High seasonal efficiency in cooling and heating
- Eurovent certified
- Ambient temperature operating range: -10 to +50 °C in cooling, -17 to +20 °C in heating
- Water outlet temperature range: -10 to +18 °C in cooling, +20 to +50 °C in heating
- Optimised design for service and maintenance
- Simple user friendly control as standard
- Modbus RTU as standard

### Technical focus:

- Chiller type: heat pump
- Refrigerant type: R410A
- Heat exchanger: stainless steel plate heat exchanger
- Flow switch, water safety and air purge valves included
- Water filter included (mandatory to be installed on site)
- Night mode setting to save energy and reduce noise level
- Water compensation curve control
- Bluefin anti-corrosion coating

## U - 020/025/030/035/040 CW

- Super quiet operation

### Technical focus:

- Compressor type (number): Scroll compressors (2)
- Refrigerant circuit: 1
- Fan type (number): axial fan (1)

## U - 045/055/065/075 CW

- Optional extra-low noise kit available

### Technical focus:

- Compressor type (number): Scroll compressors (2)
- Refrigerant circuit: 1
- Fan type (number): axial fan (1 for 45/55, 2 for 65/75)

## U - 090/105/125 CW

- Optional extra-low noise kit available

### Technical focus:

- Compressor type (number): Scroll compressors (2)
- Refrigerant circuit: 1
- Fan type (number): axial fan (2)

## U - 140/150/170/190/210 CW

- Smart defrost: Defrost limiting design to ensure a constant water outlet temperature even at very low temperatures

**1 DEFROST CYCLE  
EVERY 130 MINUTES.**

**Heating Capacity: +22 %  
Integrated COP: +15 %  
Improved SCOP Class**

### Technical focus:

- Compressor type (number): Scroll compressors (4)
- Refrigerant circuit: 2
- Fan type (number): axial fan (4)
- Remote LAN connection as standard

- Super quiet operation
- Victaulic® water connections
- Modbus TCP/IP as standard

REFER TO PAGE 44 TO SEE MORE  
OPTIONS FOR R410A OUTDOOR UNITS**Available options for U - 020/025/030/035/040 CW**

Options				
Pump	Pump drive	Hydraulic options	Ambient options	Miscellaneous options
Single pump	Variable twin speed <sup>1)</sup>	Low water pressure sensor	Finned coil treatment - epoxy	Soft starter
	Constant outlet pressure	Water isolation valves	Rubber pads	Power supply w/o neutral
	Constant differential pressure		Spring damper	Modbus TCP/IP
			All seasons	BACnet MSTP
			Nordic pack	BACnet IP
			High pressure fan <sup>2)</sup>	

1) Available as standard on models 35 - 40 when pump is selected. 2) Available as standard on models 20 - 30 when pump is selected.

**Available options for U - 045/055/065/075 CW**

Options				
Pump	Pump drive	Hydraulic options	Ambient options	Miscellaneous options
Single pump	Fixed speed	Low water pressure sensor	Finned coil treatment - epoxy	Soft starter
Double pump	Variable twin speed	Water isolation valves	Outdoor coil protection grid	Power supply w/o neutral
	Constant outlet pressure	Electrical heater low power (only with buffer tank)	Rubber pads	Modbus TCP/IP
	Constant differential pressure		Spring damper	BACnet MSTP
		Electrical heater high power (only with buffer tank)	All seasons fan control	BACnet IP
			Extra-low noise kit	Container transport
			High pressure fan	Refrigerant gauge
				Desuperheater

**Available options for U - 090/105/125 CW**

Options				
Pump	Pump drive	Hydraulic options	Ambient options	Miscellaneous options
Single pump	Fixed speed	Low water pressure sensor	Finned coil treatment - epoxy	Soft starter
Double pump	Variable twin speed	Water isolation valves	Outdoor coil protection grid	Power supply w/o neutral
	Constant outlet pressure	Electrical heater low power (only with buffer tank)	Rubber pads	Modbus TCP/IP
	Constant differential pressure		Spring damper	BACnet MSTP
		Electrical heater high power (only with buffer tank)	All seasons fan control	BACnet IP
			Extra-low noise kit	Container transport
			High pressure fan	Refrigerant gauge
				Desuperheater

**Available options for U - 140/150/170/190/210 CW**

Options				
Pump	Pump drive	Hydraulic options	Ambient options	Miscellaneous options
Single pump low pressure	Fixed speed	Low water pressure sensor	Finned coil treatment - epoxy	Soft starter
Single pump high pressure	Variable twin speed	Water isolation valves	Outdoor coil protection grid	Power supply w/o neutral
Double pump low pressure	Variable capacity	Hydraulic gauges	Rubber pads	Modbus TCP/IP
Double pump high pressure	Constant outlet pressure		Spring damper	BACnet IP
	Constant differential pressure		All seasons fan control	Container transport
			Nordic pack	Refrigerant gauge
			High pressure fan	Desuperheater <sup>1)</sup>

1) Available on special order only, please contact your local Panasonic sales representative.



### U - 020/025/030/035/040 CW

Cooling capacity: 18,7 to 38,1 kW

Heating capacity: 19,5 to 41,6 kW

Compact and powerful heat pump chiller series with Panasonic quality verification.

ECOi-W Series guarantees quiet operation.



Model		20	25	30	35	40	
<b>Standard without buffer tank</b>		<b>U-020CWNB</b>	<b>U-025CWNB</b>	<b>U-030CWNB</b>	<b>U-035CWNB</b>	<b>U-040CWNB</b>	
<b>With buffer tank</b>		<b>U-020CWBS</b>	<b>U-025CWBS</b>	<b>U-030CWBS</b>	<b>U-035CWBS</b>	<b>U-040CWBS</b>	
Power supply	Voltage	V	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50
Cooling capacity <sup>1)</sup>	kW	18,7	23,7	26,4	35,8	38,1	
Input power <sup>1)</sup>	kW	5,9	7,7	9,4	12,3	13,1	
Total EER 100 % <sup>1)</sup>		3,15	3,07	2,81	2,92	2,91	
SEER <sup>2) 3)</sup>		<b>4,68</b>	<b>4,31</b>	<b>4,28</b>	<b>4,25</b>	<b>4,33</b>	
$\eta_{s,c}$ <sup>2) 3)</sup>	%	<b>184</b>	<b>169</b>	<b>168</b>	<b>167</b>	<b>170</b>	
Heating capacity <sup>4)</sup>	kW	19,5	26,9	29,7	37,3	41,6	
Input power <sup>4)</sup>	kW	6,1	9,3	9,9	13,2	13,5	
SCOP <sup>3) 5)</sup>		<b>3,50</b>	<b>3,38</b>	<b>3,45</b>	<b>3,50</b>	<b>3,50</b>	
$\eta_{s,h}$ <sup>3) 5)</sup>	%	<b>137</b>	<b>132</b>	<b>135</b>	<b>137</b>	<b>137</b>	
Energy efficiency class (Scale A+++ to D) <sup>6)</sup>		A+	A+	A+	A+	A+	
Startup type		Direct	Direct	Direct	Direct	Direct	
Maximum operating current	A	17,7	22,2	24,3	31,8	33,8	
Startup current w/o softstarter / w softstarter	A	53/20	64/35	77/41	118/53	119/54	
Sound power (w standard fans)	dB(A)	75,0	75,0	75,0	76,0	76,0	
Sound pressure (w standard fans) <sup>7)</sup>	dB(A)	42,8	42,8	42,8	43,8	43,8	
Dimension (w standard fans) w/o buffer	HxWxD	mm	1983x1000x1000	1983x1000x1000	1983x1000x1000	1983x1000x1000	
Dimension (w standard fans) w buffer	HxWxD	mm	1983x1000x1507	1983x1000x1507	1983x1000x1507	1983x1000x1507	
Weight (w 1 pump) w/o buffer	kg	280	290	320	330	335	
Weight (w 1 pump) w buffer	kg	345	355	385	395	400	
Refrigerant (R410A)	kg	8,4	8,4	8,4	9,1	9,2	
Number of refrigerant circuit		1	1	1	1	1	
<b>Compressors</b>							
Number		2	2	2	2	2	
Type		Scroll	Scroll	Scroll	Scroll	Scroll	
Part load step	%	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100	
Crankcase heater	W	2x40	2x40	2x49	2x49	2x49	
<b>Evaporator</b>							
Number		1	1	1	1	1	
Type		Plate	Plate	Plate	Plate	Plate	
Nominal water flow (cooling)	m <sup>3</sup> /h	3,35	4,36	4,64	6,16	6,44	
Water pressure drop (cooling)	kPa	23	37	22	37	40	
Water volume	l	1,78	1,78	2,55	2,55	2,55	
Antifreeze heater	W	30	30	30	30	30	
<b>Coils</b>							
Number		1	1	1	1	1	
Frontal surface	m <sup>2</sup>	2,4	2,4	2,4	2,8	2,8	
Number of rows		2	2	2	2	2	
<b>Fans standard</b>							
Number		1	1	1	1	1	
Air flow	m <sup>3</sup> /h	9000	13000	13000	16000	16000	
Rotation speed	r.p.m.	900	900	900	650	650	
Input power (each fan)	W	620	940	940	930	930	
<b>Water connections</b>							
Type		Male gas threaded BSP ISO 228	Male gas threaded BSP ISO 228	Male gas threaded BSP ISO 228	Male gas threaded BSP ISO 228	Male gas threaded BSP ISO 228	
Inlet - diameter	Inch	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	
Outlet - diameter	Inch	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	

1) Data refers to 7 °C leaving chilled water temperature and 35 °C condenser air temperature, according EN14511 standard. 2) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers. 3) Those are the data with variable flow. 4) Data refers to 45 °C leaving warm water temperature and 7 °C ambient coil air temperature with 87 % R.H., according EN14511 standard. 5) Following COMMISSION REGULATION (EU) No 813/2013 for low-temperature heat pumps. 6) Following Eurovent and COMMISSION REGULATION (EU) No 811/2013 for low-temperature heat pumps. Scale from A+++ to D, as of 26th September 2019. 7) Sound pressure levels calculated at 10 meters. Sound pressure levels refer to ISO standard 3744 with parallel piped shape. \* w: with, w/o: without.

#### Accessories

<b>PAW-SYSREMKIT</b>	Remote control
<b>PAW-CM000SP041</b>	Cloudgate plug and play IP65 box mobile 4G Europe
<b>PAW-CM000K0001</b>	Remote antenna to improve signal coverage

#### Accessories

<b>PAW-00SRTS011</b>	ECOi-W Cloud service fee. Prepaid subscription for 1 year
<b>PAW-SYSSOV1</b>	Shut off valves kit for model 20 - 40





**U - 045/055/065/075 CW**

**Cooling capacity: 44,3 to 71,0 kW**  
**Heating capacity: 48,5 to 75,9 kW**

High seasonal efficiency in cooling, maximum SEER 4,63 in this range. ECOi-W Series offers a variety of options to meet your needs.



Model			45	55	65	75
<b>Standard without buffer tank</b>						
			<b>U-045CWNB</b>	<b>U-055CWNB</b>	<b>U-065CWNB</b>	<b>U-075CWNB</b>
<b>With buffer tank</b>						
			<b>U-045CWBM</b>	<b>U-055CWBM</b>	<b>U-065CWBM</b>	<b>U-075CWBM</b>
Power supply	Voltage	V	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50
Cooling capacity <sup>1)</sup>		kW	44,3	50,9	64,1	71,0
Input power <sup>1)</sup>		kW	15,9	18,0	21,8	24,0
Total EER 100 % <sup>1)</sup>			2,78	2,83	2,95	2,96
<b>SEER <sup>2) 3)</sup></b>			<b>4,20</b>	<b>4,41</b>	<b>4,51</b>	<b>4,63</b>
$\eta_{s,c}$ <sup>2) 3)</sup>		%	<b>165</b>	<b>174</b>	<b>177</b>	<b>182</b>
Heating capacity <sup>4)</sup>		kW	48,5	58,2	67,2	75,9
Input power <sup>4)</sup>		kW	17,3	20,4	22,5	24,3
<b>SCOP <sup>5) 5)</sup></b>			<b>3,38</b>	<b>3,38</b>	<b>3,55</b>	<b>3,53</b>
$\eta_{s,h}$ <sup>5) 5)</sup>		%	<b>132</b>	<b>132</b>	<b>139</b>	<b>138</b>
Energy efficiency class (Scale A+++ to D) <sup>6)</sup>			A+	A+	A+	—
Startup type			Direct	Direct	Direct	Direct
Maximum operating current		A	40,2	44,2	59,4	64,4
Startup current w/o softstarter / w softstarter		A	133/66	140/73	201/101	206/106
Sound power (w standard fans)		dB(A)	80,0	80,0	80,0	80,0
Sound pressure (w standard fans) <sup>7)</sup>		dB(A)	47,8	47,8	47,8	47,8
Dimension (w standard fans) w/o buffer	H x W x D	mm	1986 x 2180 x 1160	1986 x 2180 x 1160	1986 x 2180 x 1160	1986 x 2180 x 1160
Dimension (w standard fans) w buffer	H x W x D	mm	1986 x 2680 x 1160	1986 x 2680 x 1160	1986 x 2680 x 1160	1986 x 2680 x 1160
Weight (w 1 pump) w/o buffer		kg	540	550	610	620
Weight (w 1 pump) w buffer		kg	700	710	770	780
Refrigerant (R410A)		kg	14,5	14,9	18,9	19,0
Number of refrigerant circuit			1	1	1	1
<b>Compressors</b>						
Number			2	2	2	2
Type			Scroll	Scroll	Scroll	Scroll
Part load step		%	0/50/100	0/43/57/100	0/40/60/100	0/45/55/100
Crankcase heater		W	2x66	2x66	2x66	2x66
<b>Evaporator</b>						
Number			1	1	1	1
Type			Plate	Plate	Plate	Plate
Nominal water flow (cooling)		m <sup>3</sup> /h	8,06	9,18	11,30	12,31
Water pressure drop (cooling)		kPa	30	35	28	37
Water volume		l	4,10	4,10	6,10	6,10
Antifreeze heater		W	30	30	2x30	2x30
<b>Coils</b>						
Number			1	1	2	2
Frontal surface		m <sup>2</sup>	4,20	4,20	5,55	5,55
Number of rows			2	2	2	2
<b>Fans standard</b>						
Number			1	1	2	2
Air flow		m <sup>3</sup> /h	22500	22500	30000	30000
Rotation speed		r.p.m.	790	790	650	650
Input power (each fan)		W	1650	1650	930	930
<b>Water connections</b>						
Type			Male gas threaded BSPP ISO 228	Male gas threaded BSPP ISO 228	Male gas threaded BSPP ISO 228	Male gas threaded BSPP ISO 228
Inlet - diameter		Inch	2	2	2	2
Outlet - diameter		Inch	2	2	2	2

1) Data refers to 7 °C leaving chilled water temperature and 35 °C condenser air temperature, according EN14511 standard. 2) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers. 3) Those are the data with variable flow. 4) Data refers to 45 °C leaving warm water temperature and 7 °C ambient coil air temperature with 87 % R.H., according EN14511 standard. 5) Following COMMISSION REGULATION (EU) No 813/2013 for low-temperature heat pumps. 6) Following Eurovent and COMMISSION REGULATION (EU) No 811/2013 for low-temperature heat pumps. Scale from A+++ to D, as of 26th September 2019. 7) Sound pressure levels calculated at 10 meters. Sound pressure levels refer to ISO standard 3744 with parallel piped shape. \* w: with, w/o: without.

**Accessories**

<b>PAW-SYSREMKIT</b>	Remote control
<b>PAW-CM000SP041</b>	Cloudgate plug and play IP65 box mobile 4G Europe
<b>PAW-CM000K001</b>	Remote antenna to improve signal coverage

**Accessories**

<b>PAW-00SRTS011</b>	ECOi-W Cloud service fee. Prepaid subscription for 1 year
<b>PAW-SYSSOV2</b>	Shut off valves kit for model 45 - 75





## U - 090/105/125 CW

**Cooling capacity: 88,7 to 119,3 kW**  
**Heating capacity: 88,1 to 119,1 kW**

Customizable design gives high flexibility. Wide range of communication protocols fulfill the requirements in hotels, offices, industry applications.



Model			90	105	125
<b>Standard without buffer tank</b>			<b>U-090CWNB</b>	<b>U-105CWNB</b>	<b>U-125CWNB</b>
<b>With buffer tank</b>			<b>U-090CWBM</b>	<b>U-105CWBM</b>	<b>U-125CWBM</b>
Power supply	Voltage	V	400	400	400
	Phase		Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50
Cooling capacity <sup>1)</sup>		kW	88,7	100,8	119,3
Input power <sup>1)</sup>		kW	30,6	34,8	40,4
Total EER 100 % <sup>1)</sup>			2,90	2,89	2,96
<b>SEER <sup>2) 3)</sup></b>			<b>4,40</b>	<b>4,44</b>	<b>4,49</b>
$\eta_{s,c}$ <sup>2) 3)</sup>		%	<b>173</b>	<b>175</b>	<b>177</b>
Heating capacity <sup>4)</sup>		kW	88,1	101,0	119,1
Input power <sup>4)</sup>		kW	33,8	38,4	45,5
<b>SCOP <sup>3) 5)</sup></b>			<b>3,40</b>	<b>3,43</b>	<b>3,43</b>
$\eta_{s,h}$ <sup>3) 5)</sup>		%	<b>133</b>	<b>134</b>	<b>134</b>
Startup type			Direct	Direct	Direct
Maximum operating current		A	77,9	86,0	102,0
Startup current w/o softstarter / w softstarter		A	265 / 127	312 / 146	345 / 183
Sound power (w standard fans)		dB(A)	83,0	83,0	83,0
Sound pressure (w standard fans) <sup>6)</sup>		dB(A)	50,8	50,8	50,8
Dimension (w standard fans) w/o buffer	H x W x D	mm	2286 x 2180 x 1160	2286 x 2180 x 1160	2286 x 2180 x 1160
Dimension (w standard fans) w buffer	H x W x D	mm	2286 x 2680 x 1160	2286 x 2680 x 1160	2286 x 2680 x 1160
Weight (w 1 pump) w/o buffer		kg	790	900	920
Weight (w 1 pump) w buffer		kg	950	1060	1080
Refrigerant (R410A)		kg	22,0	27,0	28,5
Number of refrigerant circuit			1	1	1
<b>Compressors</b>					
Number			2	2	2
Type			Scroll	Scroll	Scroll
Part load step		%	0/45/55/100	0/38/62/100	0/33/67/100
Crankcase heater		W	66/82	66/95	66/95
<b>Evaporator</b>					
Number			1	1	1
Type			Plate	Plate	Plate
Nominal water flow (cooling)		m <sup>3</sup> /h	15,73	18,25	20,95
Water pressure drop (cooling)		kPa	26	34	45
Water volume		l	10,80	10,80	10,80
Antifreeze heater		W	2x30	2x30	2x30
<b>Coils</b>					
Number			2	2	2
Frontal surface		m <sup>2</sup>	6,4	6,4	6,4
Number of rows			2	3	3
<b>Fans standard</b>					
Number			2	2	2
Air flow		m <sup>3</sup> /h	42000	42000	42000
Rotation speed		r.p.m.	790	790	790
Input power (each fan)		W	1650	1650	1650
<b>Water connections</b>					
Type			Male gas threaded BSPP ISO 228	Male gas threaded BSPP ISO 228	Male gas threaded BSPP ISO 228
Inlet - diameter		Inch	2 1/2	2 1/2	2 1/2
Outlet - diameter		Inch	2 1/2	2 1/2	2 1/2

1) Data refers to 7 °C leaving chilled water temperature and 35 °C condenser air temperature, according EN14511 standard. 2) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers. 3) Those are the data with variable flow. 4) Data refers to 45 °C leaving warm water temperature and 7 °C ambient coil air temperature with 87 % R.H., according EN14511 standard. 5) Following COMMISSION REGULATION (EU) No 813/2013 for low-temperature heat pumps. 6) Sound pressure levels calculated at 10 meters. Sound pressure levels refer to ISO standard 3744 with parallel piped shape. \* w: with, w/o: without.

Accessories	
<b>PAW-SYSREMKIT</b>	Remote control
<b>PAW-CM000SP041</b>	Cloudgate plug and play IP65 box mobile 4G Europe
<b>PAW-CM000K0001</b>	Remote antenna to improve signal coverage

Accessories	
<b>PAW-00SRTS011</b>	ECOi-W Cloud service fee. Prepaid subscription for 1 year
<b>PAW-SYSSOV3</b>	Shut off valves kit for model 90 - 125



**U - 140/150/170/190/210 CW****Cooling capacity: 128,3 to 207,9 kW****Heating capacity: 144,0 to 218,0 kW**

Heat pump chiller series with powerful operation by 4 scroll compressors. Maximum water outlet temperature in heating is up to 50 °C. Defrost limiting design ensures to provide stable hot water even at low ambient conditions.



Model		140	150	170	190	210
<b>Standard without buffer tank</b>		<b>U-140CWNB</b>	<b>U-150CWNB</b>	<b>U-170CWNB</b>	<b>U-190CWNB</b>	<b>U-210CWNB</b>
<b>With buffer tank</b>		<b>U-140CWBL</b>	<b>U-150CWBL</b>	<b>U-170CWBL</b>	<b>U-190CWBL</b>	<b>U-210CWBL</b>
Power supply	Voltage	V	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50
Cooling capacity <sup>1)</sup>	kW	128,3	142,1	163,9	177,5	207,9
Input power <sup>1)</sup>	kW	43,2	47,7	54,7	61,3	69,7
Total EER 100 % <sup>1)</sup>		2,97	2,98	2,99	2,90	2,98
<b>SEER <sup>2) 3)</sup></b>		<b>4,39</b>	<b>4,36</b>	<b>4,31</b>	<b>4,23</b>	<b>4,28</b>
$\eta_{s,c}$ <sup>2) 3)</sup>	%	<b>173</b>	<b>171</b>	<b>169</b>	<b>166</b>	<b>168</b>
Heating capacity <sup>4)</sup>	kW	144,0	154,0	170,0	195,0	218,0
Input power <sup>4)</sup>	kW	45,7	50,3	55,5	67,4	78,3
<b>SCOP <sup>3) 5)</sup></b>		<b>3,30</b>	<b>3,33</b>	<b>3,30</b>	<b>3,23</b>	<b>3,23</b>
$\eta_{s,h}$ <sup>3) 5)</sup>	%	<b>129</b>	<b>130</b>	<b>129</b>	<b>128</b>	<b>126</b>
Startup type		Direct	Direct	Direct	Direct	Direct
Maximum operating current	A	108,0	119,0	136,0	153,0	170,0
Startup current w/o softstarter / w softstarter	A	251 / 130	262 / 141	324 / 161	341 / 178	396 / 201
Sound power (w standard fans)	dB(A)	85,4	85,4	87,0	88,1	88,1
Sound pressure (w standard fans) <sup>6)</sup>	dB(A)	53,4	53,4	55,0	56,1	56,1
Dimension (w standard fans) w/o buffer	H x W x D	mm	2295 x 2856 x 2210	2295 x 2856 x 2210	2295 x 2856 x 2210	2295 x 2856 x 2210
Dimension (w standard fans) w buffer	H x W x D	mm	2295 x 3666 x 2210	2295 x 3666 x 2210	2295 x 3666 x 2210	2295 x 3666 x 2210
Weight (w 1 low Pa pump) w/o buffer	kg	1570	1580	1680	1750	2020
Weight (w 1 low Pa pump) w buffer	kg	1700	1710	1810	1880	2150
Refrigerant (R410A)	kg	2 x 24,7	2 x 24,7	24,7/33,3	2 x 33,3	2 x 33,3
Number of refrigerant circuit		2	2	2	2	2
<b>Compressors</b>						
Number		4	4	4	4	4
Type		Scroll	Scroll	Scroll	Scroll	Scroll
Part load step	%	0 / 24 / 26 / 48 / 50 / 52 / 74 / 76 / 100	0 / 23 / 27 / 46 / 50 / 54 / 73 / 77 / 100	0 / 20 / 24 / 44 / 45 / 55 / 69 / 80 / 100	0 / 22 / 28 / 44 / 50 / 56 / 72 / 78 / 100	0 / 19 / 31 / 38 / 50 / 62 / 69 / 81 / 100
Crankcase heater	W	4 x 66	4 x 66	3 x 66 / 82	2 x 82 / 2 x 66	2 x 95 / 2 x 66
<b>Evaporator</b>						
Number		1	1	1	1	1
Type		Plate	Plate	Plate	Plate	Plate
Nominal water flow (cooling)	m <sup>3</sup> /h	21,56	23,65	25,95	30,24	33,62
Water pressure drop (cooling)	kPa	33	39	24	32	40
Water volume	l	8,49	8,49	12,21	12,21	12,21
Antifreeze heater	W	60	60	120	120	120
<b>Coils</b>						
Number		4	4	4	4	4
Frontal surface	m <sup>2</sup>	11,88	11,88	11,88	11,88	11,88
Number of rows		2+2	2+2	2+3	3+3	3+3
<b>Fans standard</b>						
Number		4	4	4	4	4
Air flow	m <sup>3</sup> /h	56000	56000	71000	86000	83000
Rotation speed	r.p.m.	900	900	900	900	900
Input power (each fan)	W	940	940	940 - 1650	1650	1650
<b>Water connections</b>						
Type		Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Inlet - diameter	Inch	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
Outlet - diameter	Inch	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2

1) Data refers to 7 °C leaving chilled water temperature and 35 °C condenser air temperature, according EN14511 standard. 2) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers. 3) Those are the data with variable flow. 4) Data refers to 45 °C leaving warm water temperature and 7 °C ambient coil air temperature with 87 % R.H., according EN14511 standard. 5) Following COMMISSION REGULATION (EU) No 813/2013 for low-temperature heat pumps. 6) Sound pressure levels calculated at 10 meters. Sound pressure levels refer to ISO standard 3744 with parallel piped shape. \* w: with, w/o: without.

**Accessories**

<b>PAW-SYSREMKIT</b>	Remote control
<b>PAW-CM000SP041</b>	Cloudgate plug and play IP65 box mobile 4G Europe
<b>PAW-CM000K0001</b>	Remote antenna to improve signal coverage

**Accessories**

<b>PAW-00SRTS011</b>	ECOi-W Cloud service fee. Prepaid subscription for 1 year
<b>PAW-SYSVICTH</b>	Victaulic® connection kit for model 140 - 210



## Options for R410A outdoor units

Options table 20 - 125

Option	Type	Ref.	Description	Model																				
				20	25	30	35	40	45	55	65	75	90	105	125									
1	Capacity																							
2	Refrigerant and compressor type	V	R410A, fixed speed compressor - Cooling only	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*			
		W	R410A, fixed speed compressor - Heat Pump	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
3	Buffer tank option	NB	No buffer	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std			
		BS	Buffer tank (small)	*	*	*	*	*																
		BM	Buffer tank (medium)						*	*	*	*	*	*	*	*	*	*	*	*	*	*		
4	Pump option		No pump <sup>1)</sup>	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std			
			Single pump	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
			Double pump						*	*	*	*	*	*	*	*	*	*	*	*	*	*		
			Pump drive - fixed speed - Cooling only <sup>2)</sup>	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
5	Pump drive option		Pump drive - fixed speed - Heat Pump							Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std			
			Pump drive - variable twin speed (single pump) <sup>3)</sup>	Std	Std	Std	Std	Std	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
			Pump drive - variable twin speed (double pump)						*	*	*	*	*	*	*	*	*	*	*	*	*	*		
			Pump drive - constant outlet pressure (single pump)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
			Pump drive - constant outlet pressure (double pump)						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
			Pump drive - constant differential pressure (single pump) <sup>4)</sup>	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	
6	Hydraulic options		Flow switch	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std			
			Low water pressure sensor <sup>5)</sup>	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
			Water isolation valves	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
			Desuperheater	S0	S0	S0	S0	S0	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
			Standard BMS option (Modbus RTU)	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std		
7	Control options		Modbus TCP/IP	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
			BACnet MSTP	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
			BACnet IP	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
			Digital input for: Cooling/heating or Night mode or Load Shedding	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std		
			Automatic circuit breaker	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	
8	Electrical options		Phase sequence control	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std		
			Fan speed controller	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
			Electrical backup heater 12 kW - Heat pump <sup>6)</sup>								*	*	*	*										
			Electrical backup heater 24 kW - Heat pump <sup>6)</sup>								*	*	*	*	*	*	*	*	*	*	*	*	*	
			Electrical backup heater 36 kW - Heat pump <sup>6)</sup>																		*	*	*	
			Power supply w/o neutral <sup>7)</sup>	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	
9	Refrigerant options		Soft starter	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
			Refrigerant gauges (HP and LP manometers)								*	*	*	*	*	*	*	*	*	*	*	*		
			Aluminium finned coil - Cooling Only	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	
10	Ambient options		Bluefin coil treatment - Heat Pump	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std		
			Finned coil epoxy treatment	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
			Finned coil Blygold treatment	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	
			Outdoor coil protection grid	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
			Rubber pads (supplied loose)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
			Spring damper (supplied loose)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
			Container transport										*	*	*	*	*	*	*	*	*	*	*	
			Low noise option	Std	Std	Std	Std	Std					*	*	*	*	*	*	*	*	*	*	*	
	High pressure fan <sup>8)</sup>	S0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*			

1) The system may be supplied without a pump, but in order to meet EU ErP compliance, the installation must include a variable speed pump.

2) Fixed speed pump drive on cooling only chiller, is only suitable for installation outside of the EU due to ErP compliance.

3) Variable twin speed drive is supplied as standard with models 20 - 40, when selecting single pump option. Please select alternate pump drive if required.

4) Constant differential pump drive option is only available on a special order basis, and requires additional production time. Please contact your local sales representative.

5) Low water pressure sensor is supplied loose when selected as an option without pump and hydraulic kit. To be installed on site.

6) Electrical backup heaters can only be selected when combined with buffer tank option.

7) Power supply without neutral is only available on a special order and requires additional production time. Please contact your local sales representative.

8) High pressure fan is not available on model 20 due to body design.

Std: Standard item included.

\*: Optional item that can be selected.

S0: Special order item.



## Options table 140 - 210

Option	Type	Ref.	Description	Model				
				140	150	170	190	210
1	Capacity							
2	Refrigerant and compressor type	V	R410A, fixed speed compressor - Cooling only	•	•	•	•	•
		W	R410A, fixed speed compressor - Heat Pump	•	•	•	•	•
3	Buffer tank option	NB	No buffer	Std	Std	Std	Std	Std
		BL	Buffer tank (large)	•	•	•	•	•
4	Pump option		No pump <sup>1)</sup>	Std	Std	Std	Std	Std
			Single pump low pressure	•	•	•	•	•
			Single pump high pressure	•	•	•	•	•
			Double pump low pressure	•	•	•	•	•
			Double pump high pressure	•	•	•	•	•
			Pump drive - fixed speed <sup>2)</sup>	Std	Std	Std	Std	Std
5	Pump drive option		Pump drive - variable twin speed (single pump)	•	•	•	•	•
			Pump drive - variable twin speed (double pump)	•	•	•	•	•
			Pump drive - variable capacity (single pump)	•	•	•	•	•
			Pump drive - variable capacity (double pump)	•	•	•	•	•
			Pump drive - constant outlet pressure (single pump)	•	•	•	•	•
			Pump drive - constant outlet pressure (double pump)	•	•	•	•	•
6	Hydraulic options		Pump drive - constant differential pressure (single pump) <sup>3)</sup>	S0	S0	S0	S0	S0
			Pump drive - constant differential pressure (double pump) <sup>3)</sup>	S0	S0	S0	S0	S0
			Flow switch	Std	Std	Std	Std	Std
			Low water pressure sensor <sup>4)</sup>	•	•	•	•	•
			Water isolation valves	•	•	•	•	•
			Hydraulic gauges	•	•	•	•	•
7	Control options		Standard BMS option (Modbus RTU)	Std	Std	Std	Std	Std
			Modbus TCP/IP	•	•	•	•	•
			BACnet MSTP	•	•	•	•	•
			BACnet IP	•	•	•	•	•
8	Electrical options		Digital input for: Cooling/heating or Night mode or Load Shedding	Std	Std	Std	Std	Std
			Automatic circuit breaker	Std	Std	Std	Std	Std
			Phase sequence control	Std	Std	Std	Std	Std
			Fan speed controller	•	•	•	•	•
			Power supply w/o neutral	•	•	•	•	•
			Soft starter	•	•	•	•	•
9	Refrigerant options		Refrigerant gauges (HP and LP manometers)	•	•	•	•	•
			Aluminium finned coil - Cooling Only	Std	Std	Std	Std	Std
			Bluefin coil treatment - Heat Pump	Std	Std	Std	Std	Std
			Finned coil treatment - epoxy	•	•	•	•	•
			Finned coil Blygold treatment	S0	S0	S0	S0	S0
10	Ambient options		Outdoor coil protection grid	•	•	•	•	•
			Rubber pads (supplied loose)	•	•	•	•	•
			Spring damper (supplied loose)	•	•	•	•	•
			Container transport	•	•	•	•	•
			Low noise option	Std	Std	Std	Std	Std
			High pressure fan	S0	S0	S0	S0	S0

1) The system may be supplied without a pump, but in order to meet EU ErP compliance, the installation must include a variable speed pump.

2) Fixed speed pump drive on cooling only chiller, is only suitable for installation outside of the EU due to ErP compliance.

3) Constant differential pump drive option is only available on a special order basis, and requires additional production time. Please contact your local sales representative.

4) Low water pressure sensor is supplied loose when selected as an option without pump and hydraulic kit. To be installed on site.

Std: Standard item included.

•: Optional item that can be selected.

S0: Special order item.

# Explore the new range of fan coils. Designed to fit with your environment and enhance comfort

Designed to provide performance, comfort and seamless integration within your environment.





Fan coils highlighted features.  
Available in a wide range of designs, the fan coils are perfectly adapted to fit within almost any location.



**1 Innovation for an optimum comfort**  
Range of fan coils for heating and cooling with capacities from 0,5 to 21,9 kW in cooling and from 0,6 to 21,5 kW in heating. Bring full year comfort with water based systems.

**2 Energy efficient and low noise fan**  
Dynamically balanced and specially designed fans, reinforced acoustic insulation and optimised fan speed staging for lower noise levels. Improved efficiency with optional EC fan motor.

**3 Quality and efficient coil**  
Constructed from staggered copper tubes, mechanically expanded into aluminium fins, providing maximum heat transfer efficiency, durability and hygiene.

**4 Flexible installation**  
Various types of unit to fit your needs with flexible installation options. A choice of service side for hydraulic connections, piping configuration and horizontal or vertical installation for ducted units.

Offering a great range of capacities and performance, available in a wide range of designs, the fan coils are perfectly adapted to fit within almost any location. Whether the requirements are for cooling only, or for both heating and cooling, there is a fan coil to suit. With a variety of piping and fan configuration, the range is capable of meeting the most stringent of requirements. Line up available in AC and EC fans, it is possible to achieve both powerful performance, but with sustainability in mind.

**Controllers with sophisticated designs, provide a user friendly interface while enabling an easy and low cost integration to building management systems.**

Optional wired remote controller for AC fan, 2-pipe and 4-pipe application.



PAW-FC-RC1

Optional wired remote controller for AC fan 2-pipe application.



PAW-FC-903AC



PAW-FC-907AC

Optional wired remote controller for EC fan, 2-pipe and 4-pipe application.



PAW-FC-903EC



PAW-FC-907EC

# Range of fan coils

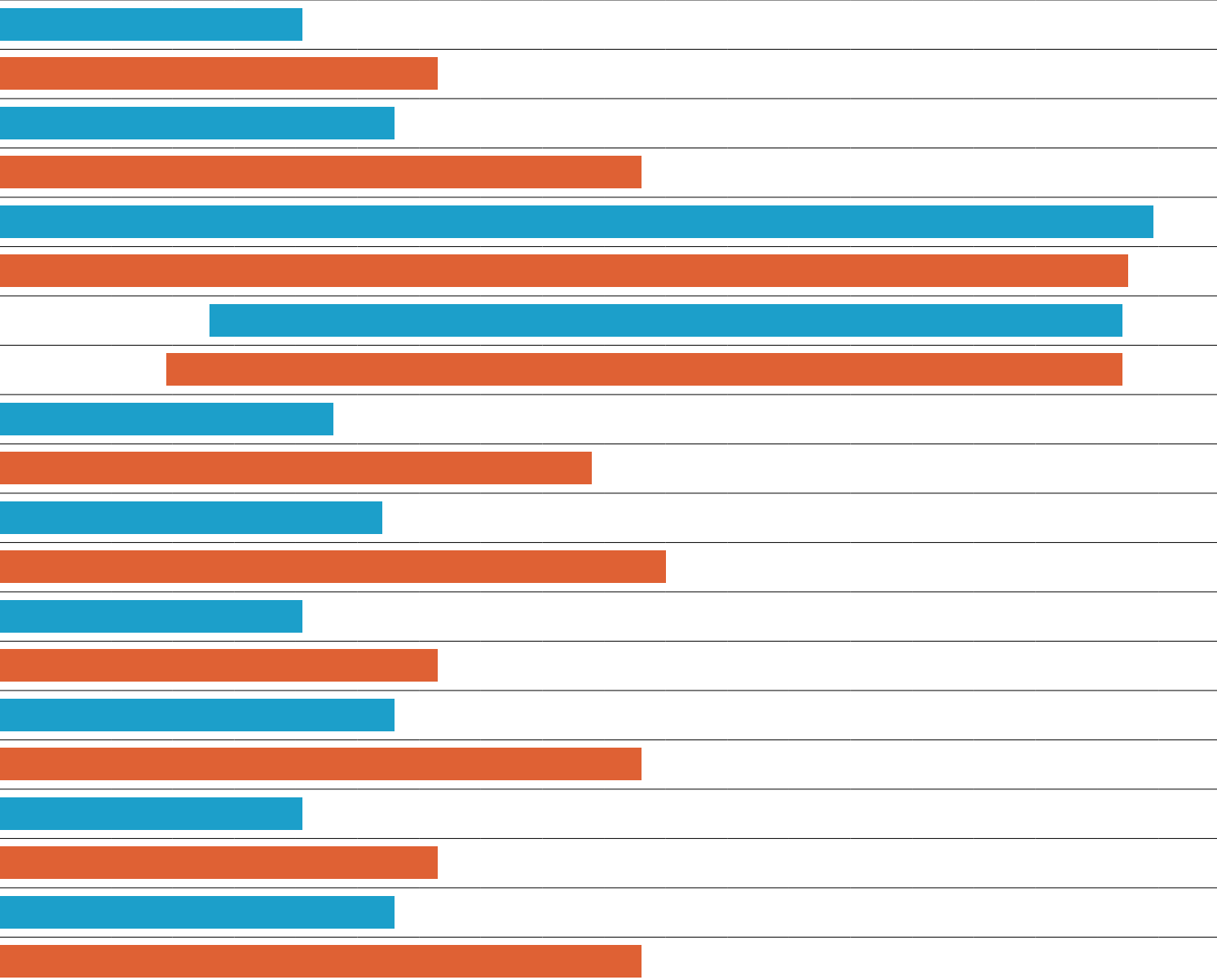
Page	Indoor units	Fan Type	Operation	Capacity range	0 kW	1 kW	2 kW	3 kW	4 kW
P. 50		AC	Cooling	0,7 to 8,1 kW	[Blue bar from 0 to 8.1 kW]				
			Heating	0,7 to 10,3 kW	[Orange bar from 0 to 10.3 kW]				
		EC	Cooling	0,5 to 9,6 kW	[Blue bar from 0 to 9.6 kW]				
			Heating	0,6 to 13,6 kW	[Orange bar from 0 to 13.6 kW]				
P. 52		AC	Cooling	4,1 to 21,9 kW	[Blue bar from 0 to 21.9 kW]				[Blue bar from 21.9 to 24.0 kW]
			Heating	4,7 to 21,5 kW	[Orange bar from 0 to 21.5 kW]				[Orange bar from 21.5 to 24.0 kW]
		EC	Cooling	6,6 to 21,4 kW	[Blue bar from 0 to 21.4 kW]				
			Heating	5,9 to 21,4 kW	[Orange bar from 0 to 21.4 kW]				
P. 54		AC	Cooling	1.4 to 8,6 kW	[Blue bar from 0 to 8.6 kW]				[Blue bar from 8.6 to 10.0 kW]
			Heating	1,1 to 12,8 kW	[Orange bar from 0 to 12.8 kW]				[Orange bar from 12.8 to 14.0 kW]
		EC	Cooling	1,4 to 9,4 kW	[Blue bar from 0 to 9.4 kW]				
			Heating	1,1 to 14,0 kW	[Orange bar from 0 to 14.0 kW]				
P. 56		AC	Cooling	0,7 to 8,1 kW	[Blue bar from 0 to 8.1 kW]				
			Heating	0,7 to 10,3 kW	[Orange bar from 0 to 10.3 kW]				
		EC	Cooling	0,5 to 9,6 kW	[Blue bar from 0 to 9.6 kW]				
			Heating	0,6 to 13,6 kW	[Orange bar from 0 to 13.6 kW]				
P. 58		AC	Cooling	0,7 to 8,1 kW	[Blue bar from 0 to 8.1 kW]				
			Heating	0,7 to 10,3 kW	[Orange bar from 0 to 10.3 kW]				
		EC	Cooling	0,5 to 9,6 kW	[Blue bar from 0 to 9.6 kW]				
			Heating	0,6 to 13,6 kW	[Orange bar from 0 to 13.6 kW]				
P. 60		AC	Cooling	1,0 to 3,9 kW	[Blue bar from 0 to 3.9 kW]				[Blue bar from 3.9 to 4.0 kW]
			Heating	1,4 to 4,1 kW	[Orange bar from 0 to 4.1 kW]				[Orange bar from 4.1 to 4.0 kW]
P. 61		AC	Cooling	0,2 to 1,7 kW	[Blue bar from 0 to 1.7 kW]				[Blue bar from 1.7 to 2.0 kW]
			Heating	0,2 to 1,7 kW	[Orange bar from 0 to 1.7 kW]				[Orange bar from 1.7 to 2.0 kW]

Values indicated are for the full operating range. The data shown within the tables following are indicative of specific installation conditions. For full details relating to performance and operating conditions, please refer to the technical data manual.





5 kW 6 kW 7 kW 8 kW 9 kW 10kW 11kW 12kW 13kW 14kW 15kW 16kW 17kW 18kW 19kW 20kW 21kW 22kW



Fan coils - ducted (AC)



Optional controller.  
Advanced wired  
remote controller.  
PAW-FC-RC1



Optional controller.  
Wired remote  
controller with  
touch control.  
PAW-FC-907AC



Optional controller.  
Wired remote  
controller.  
PAW-FC-903AC

2-pipe - Left connection (PAW-)			FC2A-D010L	FC2A-D020L	FC2A-D030L	FC2A-D040L	FC2A-D050L	FC2A-D060L	FC2A-D070L	FC2A-D080L
2-pipe - Right connection (PAW-)			FC2A-D010R	FC2A-D020R	FC2A-D030R	FC2A-D040R	FC2A-D050R	FC2A-D060R	FC2A-D070R	FC2A-D080R
Total cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,7/1,0/1,5	0,7/1,2/1,7	1,0/2,0/2,5	1,2/2,4/3,2	1,7/3,2/4,6	2,7/4,6/5,8	3,4/6,1/7,3	4,6/6,1/8,1
Sensible cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,5/0,8/1,1	0,6/0,9/1,3	0,8/1,5/1,9	0,9/1,8/2,3	1,2/2,2/3,3	1,9/3,3/4,5	2,4/4,3/5,1	3,4/4,6/6,3
Water flow	Lo/Med/Hi	l/h	124/172/250	127/213/289	172/341/430	206/413/547	296/544/798	466/784/1003	587/1058/1252	798/1048/1400
Water pressure drop	Lo/Med/Hi	kPa	10,7/19,5/39,2	1,9/3,9/6,3	6,3/19,3/28,8	5,4/17,1/28,0	7,5/22,8/46,9	13,9/37,4/60,2	4,8/15,4/21,5	11,9/19,3/32,5
Heating capacity <sup>2)</sup>	Lo/Med/Hi	kW	0,9/1,4/2,0	0,9/1,5/2,2	1,3/2,4/3,1	1,4/2,9/4,0	2,1/4,1/5,7	3,1/5,3/7,1	4,3/7,9/9,3	5,9/8,1/11,6
4-pipe - Left connection (PAW-)			FC4A-D010L	FC4A-D020L	FC4A-D030L	FC4A-D040L	FC4A-D050L	FC4A-D060L	FC4A-D070L	FC4A-D080L
4-pipe - Right connection (PAW-)			FC4A-D010R	FC4A-D020R	FC4A-D030R	FC4A-D040R	FC4A-D050R	FC4A-D060R	FC4A-D070R	FC4A-D080R
Total cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,7/0,9/1,3	0,6/1,1/1,6	1,0/1,9/2,4	1,1/2,3/3,0	1,7/3,0/4,3	2,6/4,4/5,6	3,3/5,9/6,9	4,5/5,9/8,0
Sensible cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,5/0,7/1,0	0,5/0,8/1,2	0,8/1,5/1,8	0,8/1,7/2,2	1,2/2,2/3,1	1,8/3,2/4,3	2,3/4,2/4,9	3,3/4,4/6,2
Water flow	Lo/Med/Hi	l/h	114/159/225	109/192/268	165/327/414	194/388/517	284/522/748	449/756/967	575/1019/1193	775/1020/1380
Water pressure drop	Lo/Med/Hi	kPa	8,3/15,2/29,0	1,5/3,4/5,6	3,0/9,5/14,4	6,4/22,3/36,8	4,2/12,8/25,1	10,2/27,7/44,5	5,9/17,9/24,4	19,3/31,1/53,6
Heating capacity <sup>2)</sup>	Lo/Med/Hi	kW	0,5/0,7/1,0	0,6/0,9/1,1	1,0/1,4/1,6	0,9/1,6/2,1	1,5/2,3/3,0	1,9/2,9/3,7	2,7/3,6/4,3	3,9/5,6/7,1
Water flow	Lo/Med/Hi	l/h	79/127/178	100/146/190	164/232/274	160/273/354	251/401/508	325/505/633	456/626/736	673/963/1226
Water pressure drop	Lo/Med/Hi	kPa	1,9/3,5/5,6	1,5/3,2/5,3	5,1/9,0/11,9	9,2/26,5/42,7	10,7/24,6/29,5	20,3/43,9/52,9	67,2/117,9/137,8	33,1/63,7/75
Sound levels										
Global sound power	Lo/Med/Hi	dB(A)	33/40/49	31/43/50	30/45/52	30/44/51	34/46/56	38/51/58	43/56/61	50/55/64
Global sound pressure <sup>3)</sup>	Lo/Med/Hi	dB(A)	24/31/40	22/34/41	21/36/43	21/35/42	25/37/47	29/42/49	34/47/52	41/46/55
Fan										
Number			1	1	1	2	2	2	2	3
Air flow 2-pipe	Lo/Med/Hi	m <sup>3</sup> /h	111/190/283	105/179/265	138/274/390	173/357/499	253/486/716	350/640/933	480/893/1064	660/936/1397
Air flow 4-pipe	Lo/Med/Hi	m <sup>3</sup> /h	95/168/253	89/161/241	132/263/369	162/335/467	242/466/671	334/614/885	470/859/1012	634/905/1370
Maximum external pressure		Pa	55	55	65	85	85	115	125	70
Filter			G2	G2	G2	G2	G2	G2	G2	G2
Electrical data										
Power supply	Voltage	V	230	230	230	230	230	230	230	230
	Phase		Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase
	Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Power consumption 2-pipe	Lo/Med/Hi	W	13/24/36	10/18/29	16/37/45	15/37/56	28/55/72	37/75/105	53/100/147	90/112/188
Power consumption 4-pipe	Lo/Med/Hi	W	13/24/36	10/18/28	16/37/44	15/37/55	28/54/70	37/74/104	53/99/145	90/112/188
Water connections										
Type			Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded
2-pipe		Inch	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4
	Cool	Inch	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4
4-pipe	Heat	Inch	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Dimension and weight										
Dimension	H x W x D	mm	220 x 570 x 430	220 x 570 x 430	220 x 730 x 430	220 x 938 x 430	220 x 1122 x 430	220 x 1307 x 430	220 x 1121 x 530	220 x 1316 x 530
Weight	2 / 4-pipes	kg	13/14	13/14	15/16	20/22	22/24	26/28	27/29	38/40

1) According to Eurovent standard. Air: 27 °C DB / 19 °C WB. Water in / out: 7 °C / 12 °C. 2) Air: 20 °C. Water in / out: 50 °C / 45 °C. 3) The sound pressure levels are based on (NR) characteristics of a room having volume of 100 m<sup>3</sup> with reverberation of 0,5 seconds. Values indicated are for 0 Pa external static pressure, for additional pressure characteristics, please refer the selection software.

Technical focus

- Cooling capacity from 0,7 to 8,1 kW
- Heating capacity from 0,7 to 10,3 kW
- 5-speed AC fan motor(s)

Operating limits

Entering water temperature	From 5 to 90 °C
Indoor air temperature	From 5 to 32 °C

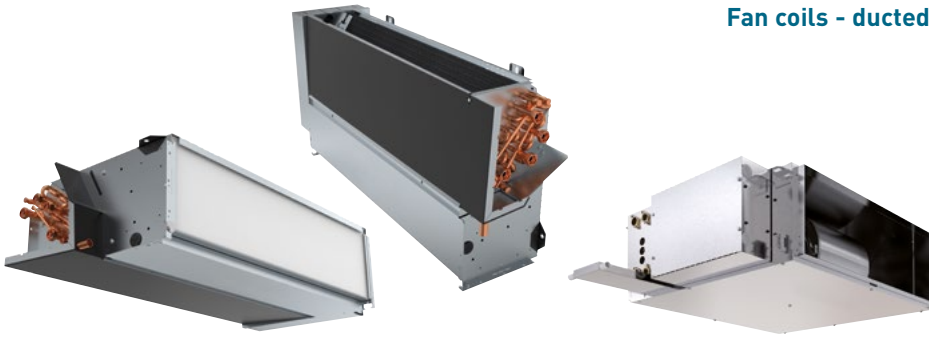
Main features and accessories

- 2 and 4-pipe configurations
- Left or right hand arrangements
- Ease of installation
- Very low acoustic levels
- 2 way or 3 way ON / OFF valves
- Auxiliary drain pan
- Air intake with removable grid
- G2 filter





Fan coils - ducted (EC)



Optional controller.  
Wired remote controller with touch control.  
PAW-FC-907EC



Optional controller.  
Wired remote controller.  
PAW-FC-903EC

2-pipe - Left connection (PAW-)			FC2E-D010L	FC2E-D020L	FC2E-D030L	FC2E-D040L	FC2E-D050L	FC2E-D060L	FC2E-D070L	FC2E-D080L	FC2E-F040L
2-pipe - Right connection (PAW-)			FC2E-D010R	FC2E-D020R	FC2E-D030R	FC2E-D040R	FC2E-D050R	FC2E-D060R	FC2E-D070R	FC2E-D080R	FC2E-F040R
Total cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,6/1,2/2,1	0,6/1,4/2,4	0,9/2,1/3,1	1,3/2,9/4,2	1,3/4,0/5,0	2,0/4,5/5,2	2,7/5,9/6,9	5,1/6,5/8,8	3,6/6,6/9,2
Sensible cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,5/1,1/1,9	0,5/1,1/1,9	0,6/1,6/2,4	1,0/2,1/3,0	1,1/3,0/3,7	1,4/3,5/4,0	2,0/4,3/5,2	3,7/4,8/6,6	2,9/6,1/9,1
Water flow	Lo/Med/Hi	l/h	107/210/356	110/237/406	148/354/532	230/506/722	231/685/743	341/767/800	463/1008/1098	879/1111/1254	627/1142/1575
Water pressure drop	Lo/Med/Hi	kPa	8,2/28,2/76,9	1,5/4,6/11,0	5,0/20,5/42,1	6,4/24,4/46,3	4,9/35,1/41,0	7,8/35,8/38,8	3,0/14,0/16,6	14,1/21,4/26,6	10,6/51,2/93,8
Heating capacity <sup>2)</sup>	Lo/Med/Hi	kW	0,8/1,6/2,9	0,9/1,9/3,3	1,0/2,2/3,4	1,4/3,0/5,3	1,7/5,2/5,5	2,3/5,9/6,1	3,8/7,3/8,2	6,2/8,0/9,3	4,4/8,3/11,8
4-pipe - Left connection (PAW-)			FC4E-D010L	FC4E-D020L	FC4E-D030L	FC4E-D040L	FC4E-D050L	FC4E-D060L	FC4E-D070L	FC4E-D080L	FC4E-F040L
4-pipe - Right connection (PAW-)			FC4E-D010R	FC4E-D020R	FC4E-D030R	FC4E-D040R	FC4E-D050R	FC4E-D060R	FC4E-D070R	FC4E-D080R	FC4E-F040R
Total cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,5/1,1/1,9	0,6/1,2/2,2	0,8/1,9/2,9	1,2/2,7/4,0	1,2/3,6/4,6	1,8/4,1/4,9	2,6/5,1/6,4	5,0/6,2/9,6	3,3/6,4/8,8
Sensible cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,4/0,9/1,7	0,4/1,0/1,8	0,6/1,5/2,2	0,9/1,9/2,8	1,0/2,8/3,5	1,2/3,2/3,8	1,9/3,8/4,8	3,6/4,6/7,2	2,7/5,6/8,0
Water flow	Lo/Med/Hi	l/h	92/185/327	97/206/375	129/321/493	205/457/681	212/625/686	306/707/749	443/886/977	855/1070/1242	567/1093/1511
Water pressure drop	Lo/Med/Hi	kPa	5,8/20,1/59,2	1,3/3,7/9,7	4,0/9,2/19,7	6,3/29,6/60,1	2,5/17,9/21,3	5,1/24,3/27,2	3,5/13,6/16,5	22,9/33,9/44,3	10,0/47,2/86,7
Heating capacity <sup>2)</sup>	Lo/Med/Hi	kW	0,4/0,8/1,4	0,6/0,9/1,5	1,0/1,4/1,8	1,2/2,0/2,8	1,6/2,4/2,5	1,4/2,9/3,1	2,5/3,4/3,6	4,5/5,9/6,9	2,5/4,5/6,2
Water flow	Lo/Med/Hi	l/h	76/140/235	95/161/255	166/243/304	204/350/483	267/416/438	233/503/531	434/583/614	767/1011/1194	432/783/1065
Water pressure drop	Lo/Med/Hi	kPa	1,8/4,0/8,4	1,4/3,8/9,4	5,3/9,7/14,1	15,6/41,8/76,3	11,9/26,3/28,9	11,5/43,6/48,1	61,5/103,8/113,9	42,1/69,7/95,1	30,6/107,6/214,8
Sound levels											
Global sound power	Lo/Med/Hi	dB(A)	34/47/60	34/47/60	31/50/59	29/44/52	30/51/57	32/54/58	40/54/59	51/56/64	42/58/68 <sup>3)</sup>
Global sound pressure <sup>4)</sup>	Lo/Med/Hi	dB(A)	25/38/51	25/38/51	22/41/50	20/35/43	21/42/48	23/45/49	31/45/50	42/47/55	23/39/52
Fan											
Number			1	1	1	2	2	2	2	3	1
Air flow 2-pipe	Lo/Med/Hi	m <sup>3</sup> /h	108/228/417	98/234/413	145/380/585	170/412/678	203/645/816	245/737/912	350/850/1050	685/927/1398	592/1284/1935
Air flow 4-pipe	Lo/Med/Hi	m <sup>3</sup> /h	91/199/379	84/200/380	123/342/540	148/369/627	185/587/646	205/668/716	329/798/894	660/884/1079	523/1222/1864
Maximum external pressure		Pa	75	75	75	105	70	105	115	70	190
Filter			G2	G2	G2	G2	G2	G2	G2	G2	G2
Electrical data											
Power supply	Voltage	V	230	230	230	230	230	230	230	230	230
	Phase		Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase
	Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Power consumption 2-pipe	Lo/Med/Hi	W	5/11/41	5/13/41	4/16/42	2/13/43	4/24/46	2/30/54	11/44/77	23/42/108	11/62/197
Power consumption 4-pipe	Lo/Med/Hi	W	5/11/39	5/13/40	6/15/40	2/12/42	2/23/44	2/28/52	11/43/75	22/41/116	11/60/188
Water connections											
Type			Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded
2-pipe		Inch	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4
	Cool	Inch	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4
4-pipe	Heat	Inch	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Dimension and weight											
Dimension	HxWxD	mm	220 x 570 x 430	220 x 570 x 430	220 x 730 x 430	220 x 938 x 430	220 x 1122 x 430	220 x 1307 x 430	220 x 1121 x 530	220 x 1316 x 530	223 x 1233 x 653
Weight	2 / 4-pipes	kg	13/14	13/14	15/16	20/22	22/24	26/28	27/29	38/40	19/19

1) According to Eurovent standard. Air: 27 °C DB / 19 °C WB. Water in / out: 7 °C / 12 °C. 2) Air: 20 °C. Water in / out: 50 °C / 45 °C. 3) The sound power levels indicated are from return and radiated measurements. 4) The sound pressure levels are based on (NR) characteristics of a room having volume of 100 m<sup>3</sup> with reverberation of 0,5 seconds. Values indicated are for 0 Pa external static pressure, for additional pressure characteristics, please refer the selection software.

Technical focus

- Cooling capacity from 0,5 to 9,6 kW
- Heating capacity from 0,6 to 13,6 kW
- Low energy consumption EC fan[s]

Operating limits

Entering water temperature	From 5 to 90 °C
Indoor air temperature	From 5 to 32 °C

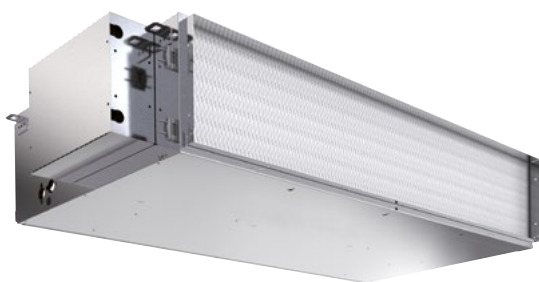
Main features and accessories

- 2 and 4-pipe configurations
- Left or right hand arrangements
- Can be installed both horizontally and vertically\*
- Ease of installation
- Very low acoustic levels
- 2 way or 3 way ON / OFF valves
- Auxiliary drain pan
- Air intake with removable grid
- G2 filter

\* PAW-FC2E-F040 and PAW-FC4E-F040 may only be installed horizontally.



Fan coils - high static pressure ducted (AC)



Optional controller.  
Advanced wired  
remote controller.  
PAW-FC-RC1



Optional controller.  
Wired remote  
controller with  
touch control.  
PAW-FC-907AC



Optional controller.  
Wired remote  
controller.  
PAW-FC-903AC

2-pipe - Left connection			PAW-FC2A-E070L	PAW-FC2A-E150L	PAW-FC2A-E180L	PAW-FC2A-E210L	PAW-FC2A-E240L*	PAW-FC2A-E270L*
2-pipe - Right connection			PAW-FC2A-E070R	PAW-FC2A-E150R	PAW-FC2A-E180R	PAW-FC2A-E210R	PAW-FC2A-E240R*	PAW-FC2A-E270R*
Total cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	4,4/5,5/6,4	5,6/11,5/14,2	4,9/11,5/15,0	5,2/13,7/18,6	14,3/19,8/23,3	15,8/23,0/27,5
Sensible cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	3,12/5,1	3,9/9,2/12,2	3,7/9,5/13,1	3,5/9,9/13,7	10,3/14,9/17,8	11,0/16,3/19,7
Water flow	Lo/Med/Hi	l/h	749/951/1095	966/1979/2437	837/1979/2589	899/2357/3201	2468/3410/4015	2718/3951/4740
Water pressure drop	Lo/Med/Hi	kPa	26,5/42,5/56,2	5,5/19,9/29,3	4,4/19,6/32,0	4,9/28,8/51,5	13,8/25,2/34,2	12,8/25,2/35,3
Heating capacity <sup>2)</sup>	Lo/Med/Hi	kW	5,4/8,6/12,7	6,2/14,2/20,0	6,3/16,3/23,2	6,1/16,5/23,4	17,2/26,3/32,6	17,9/27,5/33,7
4-pipe - Left connection			PAW-FC4A-E070L	PAW-FC4A-E150L	PAW-FC4A-E180L	PAW-FC4A-E210L	PAW-FC4A-E240L*	PAW-FC4A-E270L*
4-pipe - Right connection			PAW-FC4A-E070R	PAW-FC4A-E150R	PAW-FC4A-E180R	PAW-FC4A-E210R	PAW-FC4A-E240R*	PAW-FC4A-E270R*
Total cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	4,0/5,4/6,0	5,3/10,1/11,9	5,5/11,2/13,6	5,9/14,4/18,8	13,3/17,7/20,5	14,3/19,9/23,4
Sensible cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	2,8/4,1/4,7	3,7/8,4/10,9	3,9/9,1/12,0	4,0/10,6/14,5	9,9/13,9/16,3	10,3/14,9/17,8
Water flow	Lo/Med/Hi	l/h	680/924/1035	919/1739/2044	951/1928/2335	1013/2478/3241	2291/3053/3526	2464/3427/4032
Water pressure drop	Lo/Med/Hi	kPa	29,7/52,1/64,4	4,1/13,5/18,4	4,7/17,4/25,0	6,6/35,2/59,1	14,5/25,0/33,0	12,8/23,3/31,5
Heating capacity <sup>2)</sup>	Lo/Med/Hi	kW	3,7/6,0/7,4	5,3/11,8/15,9	5,3/11,9/15,9	5,3/11,9/16,0	7,2/11,1/13,5	7,2/11,1/13,5
Water flow	Lo/Med/Hi	l/h	636/1029/1266	906/2038/2746	911/2045/2745	916/2051/2747	1242/1910/2329	1242/1910/2329
Water pressure drop	Lo/Med/Hi	kPa	14,2/30,7/43,6	39,0/167,6/293,0	23,9/100,8/174,3	24,2/101,4/174,6	45,8/87,8/120,3	28,3/53,3/72,5
Sound levels								
Sound power return + radiated	Lo/Med/Hi	dB(A)	54/60/63	52/66/72	54/66/74	52/66/72	65/73/75	65/73/75
Sound power discharge	Lo/Med/Hi	dB(A)	53/59/62	52/64/71	52/64/71	52/64/71	64/72/75	64/72/75
Sound pressure <sup>3)</sup>	Lo/Med/Hi	dB(A)	33/39/42	31/45/51	31/45/51	31/45/51	44/52/54	44/52/54
Fan								
Number			1	1	1	1	1	1
Air flow 2-pipe	Lo/Med/Hi	m <sup>3</sup> /h	680/1091/1562	676/2110/3197	676/2110/3197	676/2110/3197	1927/3130/3923	1927/3130/3923
Air flow 4-pipe	Lo/Med/Hi	m <sup>3</sup> /h	552/1132/1496	676/2110/3197	676/2110/3197	676/2110/3197	1927/3130/3923	1927/3130/3923
Maximum external pressure		Pa	110	200	200	200	220	220
Filter			G3	G3	G3	G3	G3	G3
Electrical data								
Power supply	Voltage	V	230	230	230	230	230	230
	Phase		Single phase	Single phase	Single phase	Single phase	Single phase	Single phase
	Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60
Power consumption	Lo/Med/Hi	W	132/182/222	180/421/675	180/421/675	180/421/675	420/530/673	420/530/673
Water connections								
Type			Female gas threaded	Gas Male threaded	Gas Male threaded	Gas Male threaded	Gas Male threaded	Gas Male threaded
2-pipe		Inch	1/2	1	1 1/4	1 1/4	1 1/4	1 1/4
	Cool	Inch	1/2	1	1	1	1 1/4	1 1/4
4-pipe	Heat	Inch	1/2	3/4	3/4	3/4	3/4	3/4
Dimension and weight								
Dimension	H x W x D	mm	250 x 698 x 1200	375 x 798 x 1380	375 x 798 x 1380	375 x 798 x 1380	450 x 798 x 1500	450 x 798 x 1500
Weight		kg	42	63	65	67	76	80

1) According to Eurovent standard. Air: 27 °C DB / 19 °C WB. Water in / out: 7 °C / 12 °C. 2) Air: 20 °C. Water in / out: 50 °C / 45 °C. 3) Informative data: Considering an hypothetical sound attenuation of the room and installation of 21 dB.

Values indicated are for 50 Pa external static pressure, for additional pressure characteristics, please refer the selection software.

\* High fan speed used for capacity, water flow, sound and air flow values.

Technical focus

- 6 sizes
- Cooling capacity from 4,1 to 21,9 kW
- Heating capacity from 4,7 to 21,5 kW
- 5-speed AC fan motor

Main features and accessories

- 2 and 4-pipe, left and right hand configurations
- Static pressure up to 220Pa
- Double skin insulation
- 2 way or 3 way ON / OFF valves
- Auxiliary drain pan
- Air intake with removable grid
- G3 filter

Operating limits

Entering water temperature	From 5 to 90 °C
Indoor air temperature	From 5 to 32 °C





## Fan coils - high static pressure ducted (EC)



Optional controller.  
Wired remote  
controller with  
touch control.  
PAW-FC-907EC



Optional controller.  
Wired remote  
controller.  
PAW-FC-903EC

2-pipe - Left connection			PAW-FC2E-E150L	PAW-FC2E-E180L	PAW-FC2E-E210L	PAW-FC2E-E240L	PAW-FC2E-E270L
2-pipe - Right connection			PAW-FC2E-E150R	PAW-FC2E-E180R	PAW-FC2E-E210R	PAW-FC2E-E240R	PAW-FC2E-E270R
Total cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	7,0/11,3/14,5	7,8/13,1/17,3	8,6/14,2/19,0	9,3/16,1/20,3	10,2/18,1/23,1
Sensible cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	5,2/9,1/12,1	5,7/10,3/14,1	6,1/10,9/15,0	6,7/12,4/16,2	7,2/13,6/17,8
Water flow	Lo/Med/Hi	l/h	1207/1945/2498	1351/2259/2979	1476/2451/3275	1592/2766/3498	1751/3120/3972
Water pressure drop	Lo/Med/Hi	kPa	11,5/19,3/30,7	6,1/24,9/41,5	6,0/31,0/53,8	6,3/17,1/26,4	5,9/16,4/25,4
Heating capacity <sup>2)</sup>	Lo/Med/Hi	kW	88/15,8/20,7	9,5/17,9/24,3	10,0/19,4/26,8	11,1/20,8/27,5	11,7/22,8/30,4
4-pipe - Left connection			PAW-FC4E-E150L	PAW-FC4E-E180L	PAW-FC4E-E210L	PAW-FC4E-E240L	PAW-FC4E-E270L
4-pipe - Right connection			PAW-FC4E-E150R	PAW-FC4E-E180R	PAW-FC4E-E210R	PAW-FC4E-E240R	PAW-FC4E-E270R
Total cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	5,9/9,1/11,6	6,6/10,2/13,0	7,9/12,6/16,4	8,4/14,0/17,5	8,9/15,3/19,5
Sensible cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	4,5/7,6/10,1	4,9/8,4/11,2	5,8/9,9/13,4	6,2/11,0/14,2	6,5/11,8/15,5
Water flow	Lo/Med/Hi	l/h	1011/1567/2005	1141/1764/2243	1361/2175/2826	1447/2409/3020	1529/2641/3359
Water pressure drop	Lo/Med/Hi	kPa	4,9/11,1/17,7	6,5/14,7/23,2	7,6/27,5/45,4	6,2/15,9/24,5	5,5/14,5/22,4
Heating capacity <sup>2)</sup>	Lo/Med/Hi	kW	3,6/5,8/7,3	6,1/10,0/12,8	6,1/10,1/12,9	4,8/8,3/10,3	4,7/8,2/10,5
Water flow	Lo/Med/Hi	l/h	621/991/1264	1052/1729/2211	1057/1734/2227	832/1421/1780	804/1407/1804
Water pressure drop	Lo/Med/Hi	kPa	20,7/45,6/70,1	30,7/74,1/116,4	30,8/74,5/118,0	19,6/55,9/78,7	7,2/33,9/48,9
Sound levels							
Sound power return + radiated	Lo/Med/Hi	dB(A)	56/67/74	56/67/74	56/67/74	58/69/76	58/69/76
Sound power discharge	Lo/Med/Hi	dB(A)	56/65/74	56/65/74	56/65/74	58/67/76	58/67/76
Sound pressure <sup>3)</sup>	Lo/Med/Hi	dB(A)	35/46/52	35/46/52	35/46/52	37/48/54	37/48/54
Fan							
Number			1	1	1	1	1
Air flow 2-pipe	Lo/Med/Hi	m <sup>3</sup> /h	1071/2418/3583	1071/2418/3583	1071/2418/3583	1227/2700/3829	1227/2700/3829
Air flow 4-pipe	Lo/Med/Hi	m <sup>3</sup> /h	1071/2418/3583	1071/2418/3583	1071/2418/3583	1227/2700/3829	1227/2700/3829
Maximum external pressure		Pa	300	300	300	300	300
Filter			G3	G3	G3	G3	G3
Electrical data							
Power supply	Voltage	V	230	230	230	230	230
	Phase		Single phase	Single phase	Single phase	Single phase	Single phase
	Frequency	Hz	50/60	50/60	50/60	50/60	50/60
Power consumption	Lo/Med/Hi	W	67/172/246	67/172/246	67/172/246	64/237/364	64/237/364
Water connections							
Type			Gas Male threaded	Gas Male threaded	Gas Male threaded	Gas Male threaded	Gas Male threaded
2-pipe		Inch	1	1 1/4	1 1/4	1 1/4	1 1/4
	Cool	Inch	1	1	1	1 1/4	1 1/4
4-pipe	Heat	Inch	3/4	3/4	3/4	3/4	3/4
Dimension and weight							
Dimension	HxWxD	mm	375x798x1380	375x798x1380	375x798x1380	450x798x1500	450x798x1500
Weight		kg	63	65	67	76	80

1) According to Eurovent standard. Air: 27 °C DB / 19 °C WB. Water in / out: 7 °C / 12 °C. 2) Air: 20 °C. Water in / out: 50 °C / 45 °C. 3) Informative data: Considering an hypothetical sound attenuation of the room and installation of 21 dB.

Values indicated are for 50 Pa external static pressure, for additional pressure characteristics, please refer the selection software.

### Technical focus

- 5 sizes
- Cooling capacity from 6,6 to 19,9 kW
- Heating capacity from 5,9 to 21,4 kW
- Low energy consumption EC fan

### Main features and accessories

- 2 and 4-pipe, left and right hand configurations
- Static pressure up to 300Pa
- Double skin insulation
- 2 way or 3 way ON / OFF valves
- Auxiliary drain pan
- Air intake with removable grid
- G3 filter

#### Operating limits

Entering water temperature	From 5 to 90 °C
Indoor air temperature	From 5 to 32 °C



Fan coils - 4 way cassette (AC)



Optional controller. Advanced wired remote controller. PAW-FC-RC1



Optional controller. Wired remote controller with touch control. PAW-FC-907AC



Optional controller. Wired remote controller. PAW-FC-903AC

2-pipe			PAW-FC2A-U020-2	PAW-FC2A-U030-2	PAW-FC2A-U040-2	PAW-FC2A-U050-2	PAW-FC2A-U060-2	PAW-FC2A-U070-2
Total cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	1,5/1,8/2,4	1,9/2,7/4,0	2,8/3,5/4,7	3,4/4,4/6,1	3,7/5,4/7,2	4,0/6,5/8,6
Sensible cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	1,3/1,5/2,0	1,4/2,2/3,0	2,1/2,6/3,6	2,6/3,4/4,8	2,7/4,0/5,4	3,0/4,8/6,4
Water flow	Lo/Med/Hi	l/h	265/303/404	323/493/683	478/597/801	576/762/142	636/937/1233	695/1111/1476
Water pressure drop	Lo/Med/Hi	kPa	4,3/6,8/10,9	3,6/8,5/14,4	6,9/11,2/18,3	8,4/13,0/21,9	3,4/7,5/11,5	5,6/13,0/20,5
Heating capacity <sup>2)</sup>	Lo/Med/Hi	kW	2,2/2,5/3,2	2,3/3,7/4,5	3,7/4,6/6,2	4,5/6,0/8,1	4,5/7,4/10,0	5,2/9,2/12,0
4-pipe			PAW-FC4A-U020-2	PAW-FC4A-U030-2	PAW-FC4A-U040-2	—	PAW-FC4A-U060-2	PAW-FC4A-U070-2
Total cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	1,4/1,5/2,0	2,0/2,7/3,4	2,5/3,3/4,0	—	3,0/4,9/6,6	3,2/6,0/7,5
Sensible cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	1,2/1,4/1,8	1,5/2,1/2,6	2,0/2,6/3,2	—	2,3/3,8/5,1	2,5/4,6/5,9
Water flow	Lo/Med/Hi	l/h	232/258/359	342/465/576	437/563/683	—	511/851/1137	543/1030/1294
Water pressure drop	Lo/Med/Hi	kPa	6,6/8,9/13,6	4,4/8,3/11,6	6,7/11,2/15,3	—	6,0/13,9/22,2	7,1/18,9/27,5
Heating capacity <sup>2)</sup>	Lo/Med/Hi	kW	0,8/0,9/1,2	2,2/3,1/3,8	3,0/3,5/4,1	—	3,7/5,5/7,0	4,5/7,1/8,9
Water flow	Lo/Med/Hi	l/h	132/153/201	374/530/658	521/603/699	—	636/939/1210	776/1214/1540
Water pressure drop	Lo/Med/Hi	kPa	25,7/33,4/53,6	13,7/24,2/35	24,2/30,9/39,8	—	7,6/13,8/20,7	10,2/20,8/30,9
Sound levels								
Global sound power 2-pipe	Lo/Med/Hi	dB(A)	36/40/49	35/47/53	42/48/57	35/40/49	38/46/54	40/52/59
Global sound power 4-pipe	Lo/Med/Hi	dB(A)	36/40/49	35/47/53	42/48/57	—	38/46/54	40/52/59
Global sound pressure 2-pipe <sup>3)</sup>	Lo/Med/Hi	dB(A)	27/31/40	26/35/44	33/39/48	26/31/40	29/37/45	31/43/50
Global sound pressure 4-pipe <sup>3)</sup>	Lo/Med/Hi	dB(A)	27/31/40	26/35/44	33/39/48	—	29/37/45	31/43/50
Fan								
Number			1	1	1	1	1	1
Air flow	Lo/Med/Hi	m <sup>3</sup> /h	360/450/659	320/504/734	486/626/900	529/720/979	500/824/1159	601/1080/1447
Filter			G1	G1	G1	G1	G1	G1
Electrical data								
Power supply	Voltage	V	230	230	230	230	230	230
	Phase		Single phase	Single phase	Single phase	Single phase	Single phase	Single phase
	Frequency	Hz	50	50	50	50	50	50
Power consumption 2-pipe	Lo/Med/Hi	W	25/35/58	17/34/58	38/58/99	28/41/66	34/61/88	44/92/125
Power consumption 4-pipe	Lo/Med/Hi	W	25/35/58	17/34/58	38/58/99	—	34/61/88	44/92/125
Water connections								
Type			Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded
2-pipe		Inch	3/4	3/4	3/4	1	1	1
	Cool	Inch	3/4	3/4	3/4	—	1	1
4-pipe	Heat	Inch	1/2	1/2	1/2	—	3/4	3/4
Dimension and weight								
Dimension including panel	H x W x D	mm	334 x 720 x 720	334 x 720 x 720	334 x 720 x 720	339 x 960 x 960	339 x 960 x 960	339 x 960 x 960
Weight		kg	14,8	16,5	16,5	37,1	37,1	39,6
Panel reference			PAW-FC-KPY2040	PAW-FC-KPY2040	PAW-FC-KPY2040	PAW-FC-KPU5070	PAW-FC-KPU5070	PAW-FC-KPU5070

1) According to Eurovent standard. Air: 27 °C DB / 19 °C WB. Water in / out: 7 °C / 12 °C. 2) According to Eurovent standard. Air: 20 °C. Water in / out: 45 °C / 40 °C. 3) Information data considering an hypothetical sound attenuation of the room and installation of -9 dB(A).

Technical focus

- 6 sizes\*
- Cooling capacity from 1,4 to 8,6 kW
- Heating capacity from 1,1 to 12,8 kW
- 3-speed AC fan motor

Main features and accessories

- 2 and 4-pipe configurations
- Very low acoustic levels
- Quick access, by simply removing the front grille
- All connections: located at the same side
- Galvanized steel sheet with thermal and acoustical insulation, avoiding condensation on the casing and providing good sound attenuation
- Cleanable synthetic-type air filter

Operating limits

Entering water temperature	From 5 to 90 °C
Indoor air temperature	From 5 to 32 °C

\* 5 sizes available for 4-pipe configuration.





Fan coils - 4 way cassette (EC)



Optional controller. Wired remote controller with touch control. PAW-FC-907EC



Optional controller. Wired remote controller. PAW-FC-903EC

2-pipe			PAW-FC2E-U020-2	PAW-FC2E-U030-2	PAW-FC2E-U040-2	PAW-FC2E-U050-2	PAW-FC2E-U060-2	PAW-FC2E-U070-2
Total cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	1,6/1,8/2,4	1,9/2,9/4,0	2,8/3,5/4,7	3,4/4,4/6,1	3,7/5,5/7,2	4,1/6,5/9,6
Sensible cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	1,3/1,5/2,0	1,4/2,2/3,1	2,1/2,7/3,6	2,6/3,5/4,7	2,7/4,1/5,4	3,0/4,9/7,2
Water flow	Lo/Med/Hi	l/h	267/306/409	325/497/688	481/604/808	579/765/1050	640/944/1243	700/1119/1649
Water pressure drop	Lo/Med/Hi	kPa	4,2/6,9/11,2	3,5/8,6/14,6	6,8/11,4/18,6	8,4/13,1/22,2	3,4/7,6/11,7	5,8/13,1/24,6
Heating capacity <sup>2)</sup>	Lo/Med/Hi	kW	2,2/2,5/3,2	2,3/3,7/4,5	3,7/4,6/6,2	4,5/6,0/8,1	4,5/7,4/10,0	5,2/9,2/13,0
4-pipe			PAW-FC4E-U020-2	PAW-FC4E-U030-2	PAW-FC4E-U040-2	—	PAW-FC4E-U060-2	PAW-FC4E-U070-2
Total cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	1,4/1,5/2,0	2,0/2,7/3,4	2,6/3,2/4,0	—	3,0/5,0/6,6	3,2/6,1/7,9
Sensible cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	1,2/1,4/1,9	1,5/2,1/2,6	2,1/2,6/3,3	—	2,3/3,8/5,1	2,6/4,7/6,3
Water flow	Lo/Med/Hi	l/h	234/262/344	344/464/581	442/556/690	—	516/858/1144	549/1041/1366
Water pressure drop	Lo/Med/Hi	kPa	6,6/9,1/14,0	4,4/8,2/11,7	6,7/10,9/15,5	—	6,0/14,1/22,4	7,2/19,2/30,1
Heating capacity <sup>2)</sup>	Lo/Med/Hi	kW	0,8/0,9/1,2	2,2/3,1/3,8	3,0/3,5/4,1	—	3,7/5,5/7,0	4,5/7,1/9,8
Water flow	Lo/Med/Hi	l/h	132/153/201	374/530/658	521/603/699	—	636/939/1210	776/1214/1686
Water pressure drop	Lo/Med/Hi	kPa	25,7/33,4/53,6	13,7/24,2/35	24,2/30,9/39,8	—	7,6/13,8/20,7	10,2/20,8/36
Sound levels								
Global sound power 2-pipe	Lo/Med/Hi	dB(A)	36/40/49	35/47/53	42/48/57	35/40/49	38/46/54	40/52/59
Global sound power 4-pipe	Lo/Med/Hi	dB(A)	36/40/49	35/44/53	42/48/57	—	38/46/54	40/52/59
Global sound pressure 2-pipe <sup>3)</sup>	Lo/Med/Hi	dB(A)	27/31/40	26/35/44	33/39/48	26/31/40	29/37/45	31/43/50
Global sound pressure 4-pipe <sup>3)</sup>	Lo/Med/Hi	dB(A)	27/31/40	26/35/44	33/39/48	—	29/37/45	31/43/50
Fan								
Number			1	1	1	1	1	1
Air flow	Lo/Med/Hi	m <sup>3</sup> /h	360/450/659	320/504/734	486/626/900	529/720/979	500/824/1159	601/1080/1598
Filter			G1	G1	G1	G1	G1	G1
Electrical data								
Power supply	Voltage	V	230	230	230	230	230	230
	Phase		Single phase	Single phase	Single phase	Single phase	Single phase	Single phase
	Frequency	Hz	50	50	50	50	50	50
Power consumption 2-pipe	Lo/Med/Hi	W	9/13/29	7/14/32	13/22/57	7/12/25	9/23/25	11/40/115
Power consumption 4-pipe	Lo/Med/Hi	W	9/13/29	7/14/32	13/22/57	—	9/23/46	11/40/115
Water connections								
Type			Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded
2-pipe	Inch		3/4	3/4	3/4	1	1	1
4-pipe	Cool	Inch	3/4	3/4	3/4	—	1	1
	Heat	Inch	1/2	1/2	1/2	—	3/4	3/4
Dimension and weight								
Dimension including panel	HxWxD	mm	334x720x720	334x720x720	334x720x720	339x960x960	339x960x960	339x960x960
Weight		kg	14,8	16,5	16,5	37,1	37,1	39,6
Panel reference			PAW-FC-KPY2040	PAW-FC-KPY2040	PAW-FC-KPY2040	PAW-FC-KPU5070	PAW-FC-KPU5070	PAW-FC-KPU5070

1) According to Eurovent standard. Air: 27 °C DB / 19 °C WB. Water in / out: 7 °C / 12 °C. 2) According to Eurovent standard. Air: 20 °C. Water in / out: 45 °C / 40 °C. 3) Information data considering an hypothetical sound attenuation of the room and installation of -9 dB(A).

Technical focus

- 6 sizes\*
- Cooling capacity from 1,4 to 9,4 kW
- Heating capacity from 1,1 to 14,0 kW
- Low energy consumption EC fan

Main features and accessories

- 2 and 4-pipe configurations
- Very low acoustic levels
- Quick access, by simply removing the front grille
- All connections: located at the same side
- Galvanized steel sheet with thermal and acoustical insulation, avoiding condensation on the casing and providing good sound attenuation
- Cleanable synthetic-type air filter

Operating limits

Entering water temperature	From 5 to 90 °C
Indoor air temperature	From 5 to 32 °C

\* 5 sizes available for 4-pipe configuration.



Fan coils - ceiling chassis (AC)



Optional controller. Advanced wired remote controller. PAW-FC-RC1



Optional controller. Wired remote controller with touch control. PAW-FC-907AC



Optional controller. Wired remote controller. PAW-FC-903AC

2-pipe - Left connection (PAW-)			FC2A-T010L	FC2A-T020L	FC2A-T030L	FC2A-T040L	FC2A-T050L	FC2A-T060L	FC2A-T070L	FC2A-T080L
2-pipe - Right connection (PAW-)			FC2A-T010R	FC2A-T020R	FC2A-T030R	FC2A-T040R	FC2A-T050R	FC2A-T060R	FC2A-T070R	FC2A-T080R
Total cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,7/1,0/1,5	0,7/1,2/1,7	1,0/2,0/2,5	1,2/2,4/3,2	1,7/3,2/4,6	2,7/4,6/5,8	3,4/6,1/7,3	4,6/6,1/8,1
Sensible cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,5/0,8/1,1	0,6/0,9/1,3	0,8/1,5/1,9	0,9/1,8/2,3	1,2/2,2/3,3	1,9/3,3/4,5	2,4/4,3/5,1	3,4/4,6/6,3
Water flow	Lo/Med/Hi	l/h	124/172/250	127/213/289	172/341/430	206/413/547	296/544/798	466/784/1003	587/1058/1252	798/1048/1400
Water pressure drop	Lo/Med/Hi	kPa	10,7/19,5/39,2	1,9/3,9/6,3	6,3/19,3/28,8	5,4/17,1/28,0	7,5/22,8/46,9	13,9/37,4/60,2	4,8/15,4/21,5	11,9/19,3/32,5
Heating capacity <sup>2)</sup>	Lo/Med/Hi	kW	0,9/1,4/2,0	0,9/1,5/2,2	1,3/2,4/3,1	1,4/2,9/4,0	2,1/4,1/5,7	3,1/5,3/7,1	4,3/7,9/9,3	5,9/8,1/11,6
4-pipe - Left connection (PAW-)			FC4A-T010L	FC4A-T020L	FC4A-T030L	FC4A-T040L	FC4A-T050L	FC4A-T060L	FC4A-T070L	FC4A-T080L
4-pipe - Right connection (PAW-)			FC4A-T010R	FC4A-T020R	FC4A-T030R	FC4A-T040R	FC4A-T050R	FC4A-T060R	FC4A-T070R	FC4A-T080R
Total cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,7/0,9/1,3	0,6/1,1/1,6	1,0/1,9/2,4	1,1/2,3/3,0	1,7/3,0/4,3	2,6/4,4/5,6	3,3/5,9/6,9	4,5/5,9/8,0
Sensible cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,5/0,7/1,0	0,5/0,8/1,2	0,8/1,5/1,8	0,8/1,7/2,2	1,2/2,2/3,1	1,8/3,2/4,3	2,3/4,2/4,9	3,3/4,4/6,2
Water flow	Lo/Med/Hi	l/h	114/159/225	109/192/268	165/327/414	194/388/517	284/522/748	449/756/967	575/1019/1193	775/1020/1380
Water pressure drop	Lo/Med/Hi	kPa	8,3/15,2/29,0	1,5/3,4/5,6	3,0/9,5/14,4	6,4/22,3/36,8	4,2/12,8/25,1	10,2/27,7/44,5	5,9/17,9/24,4	19,3/31,1/53,6
Heating capacity <sup>2)</sup>	Lo/Med/Hi	kW	0,5/0,7/1,0	0,6/0,9/1,1	1,0/1,4/1,6	0,9/1,6/2,1	1,5/2,3/3,0	1,9/2,9/3,7	2,7/3,6/4,3	3,9/5,6/7,1
Water flow	Lo/Med/Hi	l/h	79/127/178	100/146/190	164/232/274	160/273/354	251/401/508	325/505/633	456/626/736	673/963/1226
Water pressure drop	Lo/Med/Hi	kPa	1,9/3,5/5,6	1,5/3,2/5,3	5,1/9,0/11,9	9,2/26,5/42,7	10,7/24,6/29,5	20,3/43,9/52,9	67,2/117,9/137,8	33,1/63,7/75
Sound levels										
Global sound power	Lo/Med/Hi	dB(A)	33/40/49	31/43/50	30/45/52	30/44/51	34/46/56	38/51/58	43/56/61	50/55/64
Global sound pressure <sup>3)</sup>	Lo/Med/Hi	dB(A)	24/31/40	22/34/41	21/36/43	21/35/42	25/37/47	29/42/49	34/47/52	41/46/55
Fan										
Number			1	1	1	2	2	2	2	3
Air flow 2-pipe	Lo/Med/Hi	m <sup>3</sup> /h	111/190/283	105/179/265	138/274/390	173/357/499	253/486/716	350/640/933	480/893/1064	660/936/1397
Air flow 4-pipe	Lo/Med/Hi	m <sup>3</sup> /h	95/168/253	89/161/241	132/263/369	162/335/467	242/466/671	334/614/885	470/859/1012	634/905/1370
Filter			G2	G2	G2	G2	G2	G2	G2	G2
Electrical data										
Power supply	Voltage	V	230	230	230	230	230	230	230	230
	Phase		Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase
	Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Power consumption 2-pipe	Lo/Med/Hi	W	13/24/36	10/18/29	16/37/45	15/37/56	28/55/72	37/75/105	53/100/147	90/112/188
Power consumption 4-pipe	Lo/Med/Hi	W	13/24/36	10/18/28	16/37/44	15/37/55	28/54/70	37/74/104	53/99/145	90/112/188
Water connections										
Type			Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded
2-pipe		Inch	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4
	Cool	Inch	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4
4-pipe	Heat	Inch	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Dimension and weight										
Dimension	HxWxD	mm	225 x 766 x 477	225 x 766 x 477	225 x 951 x 477	225 x 1136 x 477	225 x 1321 x 477	225 x 1506 x 477	225 x 1319 x 477	225 x 1506 x 477
Weight	2 / 4-pipes	kg	19/20	19/20	22/23	27/29	30/32	35/37	35/37	47/49

1) According to Eurovent standard. Air: 27 °C DB / 19 °C WB. Water in / out: 7 °C / 12 °C. 2) Air: 20 °C. Water in / out: 50 °C / 45 °C. 3) The sound pressure levels are based on (NR) characteristics of a room having volume of 100 m<sup>3</sup> with reverberation of 0,5 seconds.

Technical focus

- Cooling capacity from 0,7 to 8,1 kW
- Heating capacity from 0,7 to 10,3 kW
- 5-speed AC fan motor(s)

Main features and accessories

- 2 and 4-pipe configurations
- Left or right hand arrangements
- Ease of installation
- Very low acoustic levels
- 2 way or 3 way ON / OFF valves
- Auxiliary drain pan
- Air intake with removable grid
- G2 filter

Operating limits	
Entering water temperature	From 5 to 90 °C
Indoor air temperature	From 5 to 32 °C





## Fan coils - ceiling chassis (EC)



Optional controller.  
Wired remote  
controller with  
touch control.  
PAW-FC-907EC



Optional controller.  
Wired remote  
controller.  
PAW-FC-903EC

2-pipe - Left connection (PAW-)			FC2E-T010L	FC2E-T020L	FC2E-T030L	FC2E-T040L	FC2E-T050L	FC2E-T060L	FC2E-T070L	FC2E-T080L
2-pipe - Right connection (PAW-)			FC2E-T010R	FC2E-T020R	FC2E-T030R	FC2E-T040R	FC2E-T050R	FC2E-T060R	FC2E-T070R	FC2E-T080R
Total cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,6/1,2/2,1	0,6/1,4/2,4	0,9/2,1/3,1	1,3/2,9/4,2	1,3/4,0/5,0	2,0/4,5/5,2	2,7/5,9/6,9	5,1/6,5/8,8
Sensible cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,5/1,1/1,9	0,5/1,1/1,9	0,6/1,6/2,4	1,0/2,1/3,0	1,1/3,0/3,7	1,4/3,5/4,0	2,0/4,3/5,2	3,7/4,8/6,6
Water flow	Lo/Med/Hi	l/h	107/210/356	110/237/406	148/354/532	230/506/722	231/685/743	341/767/800	463/1008/1098	879/1111/1254
Water pressure drop	Lo/Med/Hi	kPa	8,2/28,2/76,9	1,5/4,6/11,0	5,0/20,5/42,1	6,4/24,4/46,3	4,9/35,1/41,0	7,8/35,8/38,8	3,0/14,0/16,6	14,1/21,4/26,6
Heating capacity <sup>2)</sup>	Lo/Med/Hi	kW	0,8/1,6/2,9	0,9/1,9/3,3	1,0/2,2/3,4	1,4/3,0/5,3	1,7/5,2/5,5	2,3/5,9/6,1	3,8/7,3/8,2	6,2/8,0/9,3
4-pipe - Left connection (PAW-)			FC4E-T010L	FC4E-T020L	FC4E-T030L	FC4E-T040L	FC4E-T050L	FC4E-T060L	FC4E-T070L	FC4E-T080L
4-pipe - Right connection (PAW-)			FC4E-T010R	FC4E-T020R	FC4E-T030R	FC4E-T040R	FC4E-T050R	FC4E-T060R	FC4E-T070R	FC4E-T080R
Total cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,5/1,1/1,9	0,6/1,2/2,2	0,8/1,9/2,9	1,2/2,7/4,0	1,2/3,6/4,6	1,8/4,1/4,9	2,6/5,1/6,4	5,0/6,2/9,6
Sensible cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,4/0,9/1,7	0,4/1,0/1,8	0,6/1,5/2,2	0,9/1,9/2,8	1,0/2,8/3,5	1,2/3,2/3,8	1,9/3,8/4,8	3,6/4,6/7,2
Water flow	Lo/Med/Hi	l/h	92/185/327	97/206/375	129/321/493	205/457/681	212/625/686	306/707/749	443/886/977	855/1070/1242
Water pressure drop	Lo/Med/Hi	kPa	5,8/20,1/59,2	1,3/3,7/9,7	4,0/9,2/19,7	6,3/29,6/60,1	2,5/17,9/21,3	5,1/24,3/27,2	3,5/13,6/16,5	22,9/33,9/44,3
Heating capacity <sup>2)</sup>	Lo/Med/Hi	kW	0,4/0,8/1,4	0,6/0,9/1,5	1,0/1,4/1,8	1,2/2,0/2,8	1,6/2,4/2,5	1,4/2,9/3,1	2,5/3,4/3,6	4,5/5,9/6,9
Water flow	Lo/Med/Hi	l/h	76/140/235	95/161/255	166/243/304	204/350/483	267/416/438	233/503/531	434/583/614	767/1011/1194
Water pressure drop	Lo/Med/Hi	kPa	1,8/4,0/8,4	1,4/3,8/9,4	5,3/9,7/14,1	15,6/41,8/76,3	11,9/26,3/28,9	11,5/43,6/48,1	61,5/103,8/113,9	42,1/69,7/95,1
Sound levels										
Global sound power	Lo/Med/Hi	dB(A)	34/47/60	34/47/60	31/50/59	29/44/52	30/51/57	32/54/58	40/54/59	51/56/64
Global sound pressure <sup>3)</sup>	Lo/Med/Hi	dB(A)	25/38/51	25/38/51	22/41/50	20/35/43	21/42/48	23/45/49	31/45/50	42/47/55
Fan										
Number			1	1	1	2	2	2	2	3
Air flow 2-pipe	Lo/Med/Hi	m <sup>3</sup> /h	108/228/417	98/234/413	145/380/585	170/412/678	203/645/816	245/737/912	350/850/1050	685/927/1398
Air flow 4-pipe	Lo/Med/Hi	m <sup>3</sup> /h	91/199/379	84/200/380	123/342/540	148/369/627	185/587/646	205/668/716	329/798/894	660/884/1079
Filter			G2	G2	G2	G2	G2	G2	G2	G2
Electrical data										
Power supply	Voltage	V	230	230	230	230	230	230	230	230
	Phase		Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase
	Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Power consumption 2-pipe	Lo/Med/Hi	W	5/11/41	5/13/41	4/16/42	2/13/43	4/24/46	2/30/54	11/44/77	23/42/108
Power consumption 4-pipe	Lo/Med/Hi	W	5/11/39	5/13/40	6/15/40	2/12/42	2/23/44	2/28/52	11/43/75	22/41/116
Water connections										
Type			Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded
2-pipe	Inch		1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4
4-pipe	Cool	Inch	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4
	Heat	Inch	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Dimension and weight										
Dimension	HxWxD	mm	225 x 766 x 477	225 x 766 x 477	225 x 951 x 477	225 x 1136 x 477	225 x 1321 x 477	225 x 1506 x 477	225 x 1319 x 477	225 x 1506 x 477
Weight	2 / 4-pipes	kg	19/20	19/20	22/23	27/29	30/32	35/37	35/37	47/49

1) According to Eurovent standard. Air: 27 °C DB / 19 °C WB. Water in / out: 7 °C / 12 °C. 2) Air: 20 °C. Water in / out: 50 °C / 45 °C. 3) The sound pressure levels are based on (NR) characteristics of a room having volume of 100 m<sup>3</sup> with reverberation of 0,5 seconds.

## Technical focus

- Cooling capacity from 0,5 to 9,6 kW
- Heating capacity from 0,6 to 13,6 kW
- Low energy consumption EC fan(s)

## Main features and accessories

- 2 and 4-pipe configurations
- Left or right hand arrangements
- Ease of installation
- Very low acoustic levels
- 2 way or 3 way ON / OFF valves
- Auxiliary drain pan
- Air intake with removable grid
- G2 filter

## Operating limits

Entering water temperature	From 5 to 90 °C
Indoor air temperature	From 5 to 32 °C



Fan coils - floor-standing chassis (AC)



Optional controller. Advanced wired remote controller. PAW-FC-RC1



Optional controller. Wired remote controller with touch control. PAW-FC-907AC



Optional controller. Wired remote controller. PAW-FC-903AC

2-pipe - Left connection (PAW-)			FC2A-P010L	FC2A-P020L	FC2A-P030L	FC2A-P040L	FC2A-P050L	FC2A-P060L	FC2A-P070L	FC2A-P080L
2-pipe - Right connection (PAW-)			FC2A-P010R	FC2A-P020R	FC2A-P030R	FC2A-P040R	FC2A-P050R	FC2A-P060R	FC2A-P070R	FC2A-P080R
Total cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,7/1,0/1,5	0,7/1,2/1,7	1,0/2,0/2,5	1,2/2,4/3,2	1,7/3,2/4,6	2,7/4,6/5,8	3,4/6,1/7,3	4,6/6,1/8,1
Sensible cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,5/0,8/1,1	0,6/0,9/1,3	0,8/1,5/1,9	0,9/1,8/2,3	1,2/2,2/3,3	1,9/3,3/4,5	2,4/4,3/5,1	3,4/4,6/6,3
Water flow	Lo/Med/Hi	l/h	124/172/250	127/213/289	172/341/430	206/413/547	296/544/798	466/784/1003	587/1058/1252	798/1048/1400
Water pressure drop	Lo/Med/Hi	kPa	10,7/19,5/39,2	1,9/3,9/6,3	6,3/19,3/28,8	5,4/17,1/28,0	7,5/22,8/46,9	13,9/37,4/60,2	4,8/15,4/21,5	11,9/19,3/32,5
Heating capacity <sup>2)</sup>	Lo/Med/Hi	kW	0,9/1,4/2,0	0,9/1,5/2,2	1,3/2,4/3,1	1,4/2,9/4,0	2,1/4,1/5,7	3,1/5,3/7,1	4,3/7,9/9,3	5,9/8,1/11,6
4-pipe - Left connection (PAW-)			FC4A-P010L	FC4A-P020L	FC4A-P030L	FC4A-P040L	FC4A-P050L	FC4A-P060L	FC4A-P070L	FC4A-P080L
4-pipe - Right connection (PAW-)			FC4A-P010R	FC4A-P020R	FC4A-P030R	FC4A-P040R	FC4A-P050R	FC4A-P060R	FC4A-P070R	FC4A-P080R
Total cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,7/0,9/1,3	0,6/1,1/1,6	1,0/1,9/2,4	1,1/2,3/3,0	1,7/3,0/4,3	2,6/4,4/5,6	3,3/5,9/6,9	4,5/5,9/8,0
Sensible cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,5/0,7/1,0	0,5/0,8/1,2	0,8/1,5/1,8	0,8/1,7/2,2	1,2/2,2/3,1	1,8/3,2/4,3	2,3/4,2/4,9	3,3/4,4/6,2
Water flow	Lo/Med/Hi	l/h	114/159/225	109/192/268	165/327/414	194/388/517	284/522/748	449/756/967	575/1019/1193	775/1020/1380
Water pressure drop	Lo/Med/Hi	kPa	8,3/15,2/29,0	1,5/3,4/5,6	3,0/9,5/14,4	6,4/22,3/36,8	4,2/12,8/25,1	10,2/27,7/44,5	5,9/17,9/24,4	19,3/31,1/53,6
Heating capacity <sup>2)</sup>	Lo/Med/Hi	kW	0,5/0,7/1,0	0,6/0,9/1,1	1,0/1,4/1,6	0,9/1,6/2,1	1,5/2,3/3,0	1,9/2,9/3,7	2,7/3,6/4,3	3,9/5,6/7,1
Water flow	Lo/Med/Hi	l/h	79/127/178	100/146/190	164/232/274	160/273/354	251/401/508	325/505/633	456/626/736	673/963/1226
Water pressure drop	Lo/Med/Hi	kPa	1,9/3,5/5,6	1,5/3,2/5,3	5,1/9,0/11,9	9,2/26,5/42,7	10,7/24,6/29,5	20,3/43,9/52,9	67,2/117,9/137,8	33,1/63,7/75
Sound levels										
Global sound power	Lo/Med/Hi	dB(A)	33/40/49	31/43/50	30/45/52	30/44/51	34/46/56	38/51/58	43/56/61	50/55/64
Global sound pressure <sup>3)</sup>	Lo/Med/Hi	dB(A)	24/31/40	22/34/41	21/36/43	21/35/42	25/37/47	29/42/49	34/47/52	41/46/55
Fan										
Number			1	1	1	2	2	2	2	3
Air flow 2-pipe	Lo/Med/Hi	m <sup>3</sup> /h	111/190/283	105/179/265	138/274/390	173/357/499	253/486/716	350/640/933	480/893/1064	660/936/1397
Air flow 4-pipe	Lo/Med/Hi	m <sup>3</sup> /h	95/168/253	89/161/241	132/263/369	162/335/467	242/466/671	334/614/885	470/859/1012	634/905/1370
Filter			G2	G2	G2	G2	G2	G2	G2	G2
Electrical data										
Power supply	Voltage	V	230	230	230	230	230	230	230	230
	Phase		Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase
	Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Power consumption 2-pipe	Lo/Med/Hi	W	13/24/36	10/18/29	16/37/45	15/37/56	28/55/72	37/75/105	53/100/147	90/112/188
Power consumption 4-pipe	Lo/Med/Hi	W	13/24/36	10/18/28	16/37/44	15/37/55	28/54/70	37/74/104	53/99/145	90/112/188
Water connections										
Type			Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded
2-pipe		Inch	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4
4-pipe	Cool	Inch	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4
	Heat	Inch	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Dimension and weight										
Dimension <sup>4)</sup>	HxWxD	mm	477 x 225 x 766	766 x 225 x 477	477 x 225 x 951	477 x 225 x 1136	477 x 225 x 1321	477 x 225 x 1506	575 x 225 x 1319	575 x 225 x 1506
Weight	2 / 4-pipes	kg	19/20	19/20	22/23	27/29	30/32	35/37	35/37	47/49

1) According to Eurovent standard. Air: 27 °C DB / 19 °C WB. Water in / out: 7 °C / 12 °C. 2) Air: 20 °C. Water in / out: 50 °C / 45 °C. 3) The sound pressure levels are based on (NR) characteristics of a room having volume of 100 m<sup>3</sup> with reverberation of 0,5 seconds. 4) Without support feet.

Technical focus

- Cooling capacity from 0,7 to 8,1 kW
- Heating capacity from 0,7 to 10,3 kW
- 5-speed AC fan motor(s)

Main features and accessories

- 2 and 4-pipe configurations
- Left or right hand arrangements
- Ease of installation
- Very low acoustic levels
- 2 way or 3 way ON / OFF valves
- Auxiliary drain pan
- Air intake with removable grid
- G2 filter
- PAW-FC-FSF feet for floor-standing units

Operating limits	
Entering water temperature	From 5 to 90 °C
Indoor air temperature	From 5 to 32 °C





Fan coils - floor-standing chassis (EC)



Optional controller. Wired remote controller with touch control. PAW-FC-907EC



Optional controller. Wired remote controller. PAW-FC-903EC

2-pipe - Left connection (PAW-)			FC2E-P010L	FC2E-P020L	FC2E-P030L	FC2E-P040L	FC2E-P050L	FC2E-P060L	FC2E-P070L	FC2E-P080L
2-pipe - Right connection (PAW-)			FC2E-P010R	FC2E-P020R	FC2E-P030R	FC2E-P040R	FC2E-P050R	FC2E-P060R	FC2E-P070R	FC2E-P080R
Total cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,6/1,2/2,1	0,6/1,4/2,4	0,9/2,1/3,1	1,3/2,9/4,2	1,3/4,0/5,0	2,0/4,5/5,2	2,7/5,9/6,9	5,1/6,5/8,8
Sensible cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,5/1,1/1,9	0,5/1,1/1,9	0,6/1,6/2,4	1,0/2,1/3,0	1,1/3,0/3,7	1,4/3,5/4,0	2,0/4,3/5,2	3,7/4,8/6,6
Water flow	Lo/Med/Hi	l/h	107/210/356	110/237/406	148/354/532	230/506/722	231/685/743	341/767/800	463/1008/1098	879/1111/1254
Water pressure drop	Lo/Med/Hi	kPa	8,2/28,2/76,9	1,5/4,6/11,0	5,0/20,5/42,1	6,4/24,4/46,3	4,9/35,1/41,0	7,8/35,8/38,8	3,0/14,0/16,6	14,1/21,4/26,6
Heating capacity <sup>2)</sup>	Lo/Med/Hi	kW	0,8/1,6/2,9	0,9/1,9/3,3	1,0/2,2/3,4	1,4/3,0/5,3	1,7/5,2/5,5	2,3/5,9/6,1	3,8/7,3/8,2	6,2/8,0/9,3
4-pipe - Left connection (PAW-)			FC4E-P010L	FC4E-P020L	FC4E-P030L	FC4E-P040L	FC4E-P050L	FC4E-P060L	FC4E-P070L	FC4E-P080L
4-pipe - Right connection (PAW-)			FC4E-P010R	FC4E-P020R	FC4E-P030R	FC4E-P040R	FC4E-P050R	FC4E-P060R	FC4E-P070R	FC4E-P080R
Total cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,5/1,1/1,9	0,6/1,2/2,2	0,8/1,9/2,9	1,2/2,7/4,0	1,2/3,6/4,6	1,8/4,1/4,9	2,6/5,1/6,4	5,0/6,2/9,6
Sensible cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,4/0,9/1,7	0,4/1,0/1,8	0,6/1,5/2,2	0,9/1,9/2,8	1,0/2,8/3,5	1,2/3,2/3,8	1,9/3,8/4,8	3,6/4,6/7,2
Water flow	Lo/Med/Hi	l/h	92/185/327	97/206/375	129/321/493	205/457/681	212/625/686	306/707/749	443/886/977	855/1070/1242
Water pressure drop	Lo/Med/Hi	kPa	5,8/20,1/59,2	1,3/3,7/9,7	4,0/9,2/19,7	6,3/29,6/60,1	2,5/17,9/21,3	5,1/24,3/27,2	3,5/13,6/16,5	22,9/33,9/44,3
Heating capacity <sup>2)</sup>	Lo/Med/Hi	kW	0,4/0,8/1,4	0,6/0,9/1,5	1,0/1,4/1,8	1,2/2,0/2,8	1,6/2,4/2,5	1,4/2,9/3,1	2,5/3,4/3,6	4,5/5,9/6,9
Water flow	Lo/Med/Hi	l/h	76/140/235	95/161/255	166/243/304	204/350/483	267/416/438	233/503/531	434/583/614	767/1011/1194
Water pressure drop	Lo/Med/Hi	kPa	1,8/4,0/8,4	1,4/3,8/9,4	5,3/9,7/14,1	15,6/41,8/76,3	11,9/26,3/28,9	11,5/43,6/48,1	61,5/103,8/113,9	42,1/69,7/95,1
Sound levels										
Global sound power	Lo/Med/Hi	dB(A)	34/47/60	34/47/60	31/50/59	29/44/52	30/51/57	32/54/58	40/54/59	51/56/64
Global sound pressure <sup>3)</sup>	Lo/Med/Hi	dB(A)	25/38/51	25/38/51	22/41/50	20/35/43	21/42/48	23/45/49	31/45/50	42/47/55
Fan										
Number			1	1	1	2	2	2	2	3
Air flow 2-pipe	Lo/Med/Hi	m <sup>3</sup> /h	108/228/417	98/234/413	145/380/585	170/412/678	203/645/816	245/737/912	350/850/1050	685/927/1398
Air flow 4-pipe	Lo/Med/Hi	m <sup>3</sup> /h	91/199/379	84/200/380	123/342/540	148/369/627	185/587/646	205/668/716	329/798/894	660/884/1079
Filter			G2	G2	G2	G2	G2	G2	G2	G2
Electrical data										
Power supply	Voltage	V	230	230	230	230	230	230	230	230
	Phase		Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase
	Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Power consumption 2-pipe	Lo/Med/Hi	W	5/11/41	5/13/41	4/16/42	2/13/43	4/24/46	2/30/54	11/44/77	23/42/108
Power consumption 4-pipe	Lo/Med/Hi	W	5/11/39	5/13/40	6/15/40	2/12/42	2/23/44	2/28/52	11/43/75	22/41/116
Water connections										
Type			Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded
2-pipe		Inch	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4
	Cool	Inch	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4
4-pipe	Heat	Inch	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Dimension and weight										
Dimension <sup>4)</sup>	HxWxD	mm	477 x 225 x 766	766 x 225 x 477	477 x 225 x 951	477 x 225 x 1136	477 x 225 x 1321	477 x 225 x 1506	575 x 225 x 1319	575 x 225 x 1506
Weight	2 / 4-pipes	kg	19/20	19/20	22/23	27/29	30/32	35/37	35/37	47/49

1) According to Eurovent standard. Air: 27 °C DB / 19 °C WB. Water in / out: 7 °C / 12 °C. 2) Air: 20 °C. Water in / out: 50 °C / 45 °C. 3) The sound pressure levels are based on (NR) characteristics of a room having volume of 100 m<sup>3</sup> with reverberation of 0,5 seconds. 4) Without support feet.

Technical focus

- Cooling capacity from 0,5 to 9,6 kW
- Heating capacity from 0,6 to 13,6 kW
- Low energy consumption EC fan(s)

Main features and accessories

- 2 and 4-pipe configurations
- Left or right hand arrangements
- Ease of installation
- Very low acoustic levels
- 2 way or 3 way ON / OFF valves
- Auxiliary drain pan
- Air intake with removable grid
- G2 filter
- PAW-FC-FSF feet for floor-standing units

Operating limits

Entering water temperature	From 5 to 90 °C
Indoor air temperature	From 5 to 32 °C



## Fan coils - wall-mounted (AC)



Optional controller.  
Advanced wired  
remote controller.  
PAW-FC-RC1



Optional controller.  
Wired remote  
controller with  
touch control.  
PAW-FC-907AC



Optional controller.  
Wired remote  
controller.  
PAW-FC-903AC



Infrared remote  
supplied with IR  
versions.  
IR Controller

2-pipe			PAW-FC2A-K007	PAW-FC2A-K009	PAW-FC2A-K018	PAW-FC2A-K022
			PAW-FC2A-K007IR	PAW-FC2A-K009IR	PAW-FC2A-K018IR	PAW-FC2A-K022IR
Total cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	1,0/1,3/1,7	1,6/1,7/2,4	2,8/3,0/3,5	2,9/3,1/3,9
Sensible cooling capacity <sup>1)</sup>	Lo/Med/Hi	kW	0,7/1,0/1,2	1,2/1,3/1,9	2,1/2,3/2,7	2,3/2,5/3,1
Water flow	Lo/Med/Hi	l/h	172/231/287	270/291/418	483/508/609	502/535/669
Water pressure drop	Lo/Med/Hi	kPa	18,6/24,9/30,9	18,5/27,0/40,0	34,6/41,3/55,6	37,2/33,7/45,2
Heating capacity <sup>2)</sup>	Lo/Med/Hi	kW	1,4/1,7/2,0	1,7/2,0/2,7	2,9/3,2/4,0	3,1/3,7/4,4
<b>Sound levels</b>						
Sound power	Lo/Med/Hi	dB(A)	45/49/51	47/52/57	49/53/59	56/59/63
Sound pressure <sup>3)</sup>	Lo/Med/Hi	dB(A)	32/36/38	34/39/44	40/43/46	43/46/50
<b>Fan</b>						
Number			1	1	1	1
Air flow	Lo/Med/Hi	m <sup>3</sup> /h	282/321/360	367/413/551	532/592/680	617/709/850
Filter			G1	G1	G1	G1
<b>Electrical data</b>						
Power supply	Voltage	V	230	230	230	230
	Phase		Single phase	Single phase	Single phase	Single phase
	Frequency	Hz	50	50	50	50
Fuse rating		A	3	3	3	3
Power consumption	Lo/Med/Hi	W	39/42/62	30/47/59	44/50/55	50/55/70
<b>Water connections</b>						
Type			Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded
Water connections		Inch	1/2	1/2	1/2	1/2
<b>Dimension and weight</b>						
Dimension	HxWxD	mm	275 x 180 x 845	275 x 180 x 845	298 x 200 x 940	298 x 200 x 940
Weight		kg	11	11	13	13

1) According to Eurovent standard. Air: 27 °C DB / 19 °C WB. Water in / out: 7 °C / 12 °C. 2) According to Eurovent standard. Air: 20 °C. Water in / out: 45 °C / 40 °C. 3) Sound pressure considering a local of 100 m<sup>3</sup> a reverberation time of 0,5 seconds and a distance of 1 m.

### Technical focus

- 4 sizes
- Cooling capacity from 1,0 to 3,9 kW
- Heating capacity from 1,4 to 4,1 kW
- Version: 2-pipes, AC fan

### Main features and accessories

- 2 way or 3 way valve ON / OFF
- 3-speed AC fan motor
- Silent unit for optimum customer comfort
- Aesthetic design suitable for residential and hotel applications
- Compatible with IR controller (supplied with IR versions)
- Coil with hydrophilic fins to improve the condensate flow

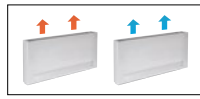
#### Operating limits

Entering water temperature	From 5 to 60 °C
Indoor air temperature	From 6 to 40 °C





Smart fan coils



Built-in advanced thermostat.

			PAW-AAIR-200-2	PAW-AAIR-700-2	PAW-AAIR-900-2
Total cooling capacity	Lo/Med/Hi	kW	0,2/0,3/0,6	0,8/1,0/1,2	1,2/1,5/1,7
Sensible cooling capacity	Lo/Med/Hi	kW	0,2/0,3/0,5	0,6/0,9/1,1	1,1/1,4/1,6
Water flow	Lo/Med/Hi	kg/h	40,0/59,0/95,0	129,0/178,0/207,0	198,0/261,0/300,0
Water pressure drop	Lo/Med/Hi	kPa	0,4/2,0/2,9	1,0/2,0/2,0	6,0/9,0/12,0
Inlet water temperature		°C	10	10	10
Outlet water temperature		°C	15	15	15
Inlet air temperature		°C	27,0	27,0	27,0
Outlet air temperature	Lo/Med/Hi	°C	15,0/17,0/18,0	14,0/16,0/17,0	16,0/17,0/18,0
Relative humidity of inlet air		%	47	47	47
Total heating capacity	Lo/Med/Hi	kW	0,2/0,5/0,6	0,7/1,0/1,2	0,9/1,4/1,7
Water flow	Lo/Med/Hi	kg/h	37,3/80,8/98,0	121,8/177,5/204,3	152,4/244,2/292,9
Water pressure drop	Lo/Med/Hi	kPa	0,4/2,0/2,9	0,3/0,8/1,0	0,5/1,6/2,2
Inlet water temperature		°C	35	35	35
Outlet water temperature		°C	30	30	30
Inlet air temperature		°C	19,0	19,0	19,0
Outlet air temperature	Lo/Med/Hi	°C	38,9/32,0/30,0	33,3/31,8/30,6	30,2/31,1/30,6
Air flow	Lo/Med/Hi	m <sup>3</sup> /min	0,9/1,9/2,7	2,6/4,2/5,3	4,1/6,1/7,7
Maximum input power	Lo/Med/Hi	W	7,0/9,0/13,0	14,0/18,0/22,0	16,0/20,0/24,0
Sound pressure	Lo/Med/Hi	dB(A)	23/33/40	24/36/42	25/36/44
Dimension (HxWxD)		mm	735x579x129	935x579x129	1135x579x129
Net weight		kg	17	20	23
3 Ways valve included			Yes	Yes	Yes
Touch screen thermostat			Yes	Yes	Yes

\* Smart fan coils is produced by Innova.

Accessories

**PAW-AAIR-LEGS-1** Kits of 2 legs to protect the water pipings

Accessories

**PAW-AAIR-RHCABLE** Motor connection cable for units with hydraulic connections on the right

Stylish floor-standing fan coils with advanced controller

The slimline of Smart fan coils delivers high efficiency climate control.

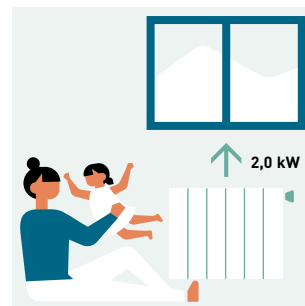
With a depth of just under 130 mm they are at the cutting edge of the market. Blending easily into the home, Smart fan coil's elegant design and product refinements are clear to see in every detail.

Exceptional ventilation efficiency means the motor uses considerably less energy (low wattage). The fan speed is continuously modulated by the temperature controller with proportional integral logic, with undoubted advantages for regulating the temperature and humidity in summer mode.

Technical focus

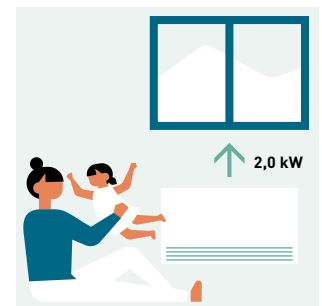
- 4 operation modes (auto, silent, night-time and maximum ventilation speed)
- Exclusive design
- Extremely compact (only 129 mm deep)
- Cooling and dehumidification functions possible (drain is needed)
- 3-way valve included (no overflow valve needed on the installation if more than 3 units installed)
- Touch screen thermostat

With standard cast radiators.



Water at 65 °C needed.

With Smart fan coil.



Water at 35 °C needed.

All temperature curves and capacity are available on [www.panasonicproclub.com](http://www.panasonicproclub.com)

PRO Club



## Control and connectivity



### Simple user friendly control for outdoor units

A control panel with intuitive design is equipped on all ECOi-W systems as standard. The microprocessor based control has a new IHM logic and implements a smart handling for your demand.

#### Basic operation.

- ON / OFF setting
- Cooling / Heating mode setting

#### Energy Saving.

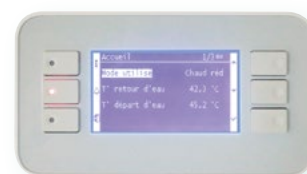
- Intelligent logic control for inlet water temperature
- Night setback operation to reduce electrical consumption and noise
- Part load operating mode
- Maximum discharge temperature control

#### Service / Maintenance.

- Automatic test operation at the push of a button
- Alarm notice with the latest 10 alarms
- Counter for operating hours of compressor and pump
- Compressor operating limits saved in a flash memory

#### Others.

- BMS compatible (RS485 ModBus RTU or BACnet MSTP protocol)



### Remote control kit

#### PAW-SYSREMKIT for R410A models

#### PAW-SYSREMKIT1 for R32 models

Simple remote control for the need to be installed remotely from the units.

#### Features:

- 8 lines of display with selectable blue and white back light
- Push-and-roll knob for easy operation
- Schedule function
- Alarm button with LED indicator
- Firmware can be upgraded via USB interface



### New remote monitoring service ECOi-W Cloud

#### PAW-CM000SP041

Remote access in real time to optimise the service and maintenance work.

Alarm notification via e-mail.

Reporting and graph visualization with 300 varieties.

Various LED signals on the hardware to check the status on site.

#### Technical focus:

- Maximum 10 outdoor units connectable
- Modbus RTU is required
- History of data interval up to 5 minutes
- 4G SIM card fitted
- IP65 casing
- Optional antenna is available in the case that 4G signal is not good enough





# Wired controllers for AC and EC fan coils

## Advanced wired remote controller (AC)

### PAW-FC-RC1

This advanced controller provides a higher level of comfort in heating. The sensor can be used as a water flow sensor, stopping the fan when the water temperature is low, avoiding cold drafts in winter.

#### Features:

- For 2-pipe and 4-pipe, AC fan
- Change Over function (cold draft prevention)
- Room thermostat
- 3 outputs, 230 V relays for fan control
- 2 outputs, 230 V relays for heating / cooling control
- Connection to BMS - Modbus RTU slave
- 1 DI for presence detection (key card switch)
- 1 AI for sensor



## Wired remote controller (AC/EC)

Stylish and sophisticated design with backlit LCD display, is suitable for installation within a wide variety of locations such as office, hotel and residential applications. By connecting the controller to the range of AC/EC fan coils, the user can take advantage of the improved performance, higher levels of efficiency and thus improved energy savings.

### PAW-FC-907AC

#### Features:

- For 2-pipe, AC fan
- Back lit LCD screen with touch control
- 3 speed control relay, for fan
- Economizer

### PAW-FC-907EC

#### Features:

- For 2-pipe and 4-pipe, EC fan
- Back lit LCD screen with touch control
- Adjustable range EC fan control
- Economizer
- Connection to BMS via Modbus
- 1 DI for presence detection (key card switch)



## Wired remote controller (AC/EC)

Feature rich and perfectly adapted to control AC/EC fan coils, the PAW-FC-903AC/EC is the addition for any fan coil. With intuitive user interface provided by the push button control and large LCD display, it will fit seamlessly with almost any location.

### PAW-FC-903AC

#### Features:

- For 2-pipe, AC fan
- Back lit LCD screen
- 3 speed control relay, for fan
- Economizer










### PAW-FC-903EC

#### Features:

- For 2-pipe and 4-pipe, EC fan
- Back lit LCD screen
- Adjustable range EC fan control
- Economizer
- Connection to BMS via Modbus
- 1 DI for presence detection (key card switch)



# Accessories and control

Wired remote controller for outdoor units		Remote monitoring service ECOi-W Cloud		
 <p><b>Remote control for the need to be installed remotely from the units.</b></p> <p>----- PAW-SYSREMKIT</p>	 <p><b>Remote antenna to improve signal coverage.</b></p> <p>----- PAW-CM000K0001</p>	 <p><b>Cloudgate plug and play IP65 box mobile 4G Europe.</b></p> <p>----- PAW-CM000SP041</p>	 <p><b>ECOi-W Cloud service fee.</b> Prepaid subscription for 1 year.</p> <p>----- PAW-00SRTS011</p>	
Shut off valves			Victaulic® connection kit	
 <p><b>Shut off valves kit for R410A models 20 - 40.</b></p> <p>----- PAW-SYSSOV1</p> <p><b>Shut off valves kit for R32 models 50 - 75.</b></p> <p>----- PAW-SYSSOV4</p>	<p><b>Shut off valves kit for R410A models 45 - 75.</b></p> <p>----- PAW-SYSSOV2</p> <p><b>Shut off valves kit for R32 models 85 - 170.</b></p> <p>----- PAW-SYSSOV5</p>	<p><b>Shut off valves kit for R410A models 90 - 125.</b></p> <p>----- PAW-SYSSOV3</p>	 <p><b>Victaulic® connection kit for model 140 - 210.</b></p> <p>----- PAW-SYSVICTH</p>	
Wired remote controller for fan coil				
 <p><b>Advanced wired remote controller for fan coil.</b></p> <p>----- PAW-FC-RC1</p>	 <p><b>Wired remote controller with touch control for 2-pipe and 4-pipe, EC fan coil (control + Modbus).</b></p> <p>----- PAW-FC-907EC</p> <p><b>Wired remote controller with touch control for 2-pipe, AC fan coil (control only).</b></p> <p>----- PAW-FC-907AC</p>	 <p><b>Wired remote controller for 2-pipe and 4-pipe, EC fan coil (control + Modbus).</b></p> <p>----- PAW-FC-903EC</p> <p><b>Wired remote controller for 2-pipe, AC fan coil (control only).</b></p> <p>----- PAW-FC-903AC</p>		
Fan coil ceiling, floor-standing and ducted valve accessories				
<p><b>2 way valve + drain pan for 2-pipe ceiling, floor-standing and ducted models 010-060.</b></p> <p>----- PAW-FC-2WY-11/55-1</p>	<p><b>2 way valve + drain pan for 2-pipe ceiling, floor-standing and ducted models 070-080.</b></p> <p>----- PAW-FC-2WY-65/90-1</p>	<p><b>2 way valve + drain pan for 2-pipe ducted model F040.</b></p> <p>----- PAW-FC-2WY-F040</p>		
<p><b>3 way valve + drain pan for 2-pipe ceiling, floor-standing and ducted models 010-060.</b></p> <p>----- PAW-FC-3WY-11/55-1</p>	<p><b>3 way valve + drain pan for 2-pipe ceiling, floor-standing and ducted models 070-080.</b></p> <p>----- PAW-FC-3WY-65/90-1</p>	<p><b>3 way valve + drain pan for 2-pipe ducted model F040.</b></p> <p>----- PAW-FC-3WY-F040</p>		





<b>2 way valve + drain pan for 4-pipe ceiling, floor-standing and ducted models 010-060.</b> ----- PAW-FC4-2WY-010	<b>2 way valve + drain pan for 4-pipe ceiling, floor-standing and ducted models 070-080.</b> ----- PAW-FC4-2WY-070	<b>2 way valve + drain pan for 4-pipe ducted model F040.</b> ----- PAW-FC4-2WY-F040
<b>3 way valve + drain pan for 4-pipe ceiling, floor-standing and ducted model 010.</b> ----- PAW-FC4-3WY-010	<b>3 way valve + drain pan for 4-pipe ceiling, floor-standing and ducted models 020-060.</b> ----- PAW-FC4-3WY-020	<b>3 way valve + drain pan for 4-pipe ceiling, floor-standing and ducted models 070-080.</b> ----- PAW-FC4-3WY-070
<b>3 way valve + drain pan for 4-pipe ducted model F040.</b> ----- PAW-FC4-3WY-F040		

### Fan coil high static ducted valve accessories

<b>2 way valve + drain pan for 2-pipe high static ducted model E070.</b> ----- PAW-FC2-2WY-E070	<b>2 way valve + drain pan for 2-pipe high static ducted models E150-E180.</b> ----- PAW-FC-2WY-150	<b>2 way valve + drain pan for 2-pipe high static ducted models E210-E240.</b> ----- PAW-FC2-2WY-E210
<b>3 way valve + drain pan for 2-pipe high static ducted model E070.</b> ----- PAW-FC2-3WY-E070	<b>3 way valve + drain pan for 2-pipe high static ducted models E150-E180.</b> ----- PAW-FC-3WY-150	<b>3 way valve + drain pan for 2-pipe high static ducted models E210-E240.</b> ----- PAW-FC2-3WY-E210
<b>2 way valve + drain pan for 4-pipe high static ducted model E070.</b> ----- PAW-FC4-2WY-E070	<b>2 way valve + drain pan for 4-pipe high static ducted models E150-E180.</b> ----- PAW-FC4-2WY-E150	<b>2 way valve + drain pan for 4-pipe high static ducted models E210-E240.</b> ----- PAW-FC4-2WY-E210
<b>3 way valve + drain pan for 4-pipe high static ducted model E070.</b> ----- PAW-FC4-3WY-E070	<b>3 way valve + drain pan for 4-pipe high static ducted models E150-E180.</b> ----- PAW-FC4-3WY-E150	<b>3 way valve + drain pan for 4-pipe high static ducted models E210-E240.</b> ----- PAW-FC4-3WY-E210

### Fan coil cassette valve accessories

<b>2 way valve + drain pan for 2-pipe cassette models U020-U040.</b> ----- PAW-FC2-2WY-U020	<b>2 way valve + drain pan for 2-pipe cassette models U050-U070.</b> ----- PAW-FC2-2WY-U050	<b>3 way valve + drain pan for 2-pipe cassette models U020-U040.</b> ----- PAW-FC2-3WY-U020	<b>3 way valve + drain pan for 2-pipe cassette models U050-U070.</b> ----- PAW-FC2-3WY-U050
<b>2 way valve + drain pan for 4-pipe cassette models U020-U040.</b> ----- PAW-FC4-2WY-U020	<b>2 way valve + drain pan for 4-pipe cassette models U050-U070.</b> ----- PAW-FC4-2WY-U050	<b>3 way valve + drain pan for 4-pipe cassette models U020-U040.</b> ----- PAW-FC4-3WY-U020	<b>3 way valve + drain pan for 4-pipe cassette models U050-U070.</b> ----- PAW-FC4-3WY-U050

### Fan coil wall-mounted valve accessories

<b>2 way valve for 2-pipe wall-mounted K007-K022.</b> ----- PAW-FC2-2WY-K007	<b>3 way valve for 2-pipe wall-mounted K007-K022.</b> ----- PAW-FC2-3WY-K007
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### Smart fan coil accessories

<b>Kits of 2 legs to protect the water pipings.</b> ----- PAW-AAIR-LEGS-1	<b>Motor connection cable for units with hydraulic connections on the right.</b> ----- PAW-AAIR-RHCABLE
---	---

**Energy saving**

**R32** Refrigerant gas. R32 Our heat pumps containing the refrigerant R32 show a drastic reduction in the value of Global Warming Potential (GWP).

**HIGH SEER** High seasonal efficiency in cooling mode. SEER follows COMMISSION REGULATION (EU) No 2016/2281.

**HIGH SCOP** High seasonal efficiency in heating mode. SCOP follows COMMISSION REGULATION (EU) No 813/2013.

**EC MOTOR GREEN VENTILATION** EC motor green ventilation. Range of fan coil with improved efficiency with optional EC fan motor.

**-17 °C HEATING MODE** Down to -17 °C in heating mode. The ECOi-W system works in heating mode at outdoor temperature down to -17 °C (down to -15 °C with R32 models).

**50 °C COOLING MODE** Up to 50 °C in cooling mode. The ECOi-W system works in cooling mode at outdoor temperature up to 50 °C (up to 48 °C with R32 models).

**High connectivity**

**BMS CONNECTIVITY** BMS connectivity. The communication port can be integrated into the ECOi-W system and provides easy connection and control. Modbus RTU is equipped as standard. Modbus TCP/IP, BACnet IP and BACnet MSTP as optional availability.

**High performance and indoor air quality**

**SUPER QUIET** Super quiet. Extra quiet operation is available as standard (with sizes 20 – 40, 140 - 210).

**BLUEFIN** Bluefin. Bluefin coil comes as standard on all heat pump models. The life time of coils have been extended thanks to the hydrophilic coating.

**AUTOMATIC FAN** Automatic fan operation. The microprocessor control automatically adjusts the fan speed as a function of the operating conditions.

**ULTIMATE CUSTOMISATION** Ultimate customisation. Various pump, hydraulic, ambient options offered, plus many more. Ultimate customization for your needs and environment.

**DEFROST LIMITING** Defrost limiting cycle (140 – 210). Each pair of coils can be defrosted wisely while the other pair of coils are running in heating mode. This alternated defrost cycle ensures stable hot water even at low ambient conditions (available on R410A models 140 - 210).

**Reliable quality**

**100% QUALITY** Quality certified by Panasonic. Panasonic does not compromise on product quality, safety, durability in order to provide the ultimate comfort when you need it most.

**ErP** ECOi-W Series are compliant with ErP regulation. SEER follows COMMISSION REGULATION (EU) No 2016/2281. SCOP follows COMMISSION REGULATION (EU) No 813/2013.



Eurovent certified performance. The performance of ECOi-W Series has been certified by Eurovent to prove the high quality and high performance by Panasonic. <https://www.eurovent-certification.com/>



**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: 01218Q30835P8L

**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



# Notes

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# Notes

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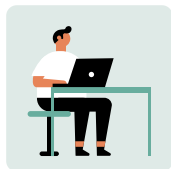


# Notes

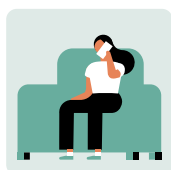
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# Panasonic Heating & Cooling Solutions customer service

If your end customer is seeking further support from Panasonic directly, please forward the following ways to contact us:



Use our European website [www.aircon.panasonic.eu](http://www.aircon.panasonic.eu) for contacting us. Panasonic has implemented a new contact page on the Panasonic Heating & Cooling Solutions website for potential or existing Panasonic customers.



Another option is to contact the highly experienced teams at the Panasonic call centres, who are more than qualified to support Panasonic clients in 13 different languages across Europe.

## Our call centres in Europe for end customers:

Country	Phone number	Opening times
Belgium	+32 2 320 55 38	Mo-Fr 9-17h
Denmark	+45 89 87 45 00	Mo-Fr 9-17h
Finland	+35 8646041590	Mo-Fr 9-17h
France	0800 805 215	Mo-Fr 9-17h
Germany	+49 611 71187211	Mo-Sat 7-18h
Hungary	+36 1 700 89 65	Mo-Fr 9-17h
Ireland	1800 939 977	Mo-Fr 9-17h
Italy	+39 2 6433235	Mo-Fr 9-17h
Luxembourg	+32 2 320 55 38	Mo-Fr 9-17h
Netherlands	+31 73 6402 538	Mo-Sat 7-18h

Country	Phone number	Opening times
Norway	+47 69 67 61 00	Mo-Fr 9-17h
Poland	800 080 911	Mo-Fr 9-17h
Portugal	800 78 22 20	Mo-Fr 9-17h
Spain	+34 900 828 787	Mo-Fr 9-17h
Sweden	+46 85 221 81 00	Mo-Fr 9-17h
Switzerland DE	+41 415615366	Mo-Fr 9-17h
Switzerland FR	+41 435880049	Mo-Fr 9-17h
Switzerland IT	+41 435880048	Mo-Fr 9-17h
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heating & cooling solutions

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Do not add or replace refrigerant other than the specified type. Manufacturer is not responsible for the damage and deterioration in safety due to usage of the other refrigerant.  
The outdoor units in this catalogue contains fluorinated greenhouse gases with a GWP higher than 150.

