Panasonic

Chillers and heat pumps, fan coils, water source heat pumps and rooftops 2023 / 2024

heating & cooling solutions

Air cooled chillers, heat pumps and condensing units

Our hydronic systems offer the perfect combination of comfort and high efficiency. They are perfect for any type of building. The air cooled chiller variant of the system is also a fundamental part of many industrial processes.

Water cooled chillers, heat pumps and condenserless units

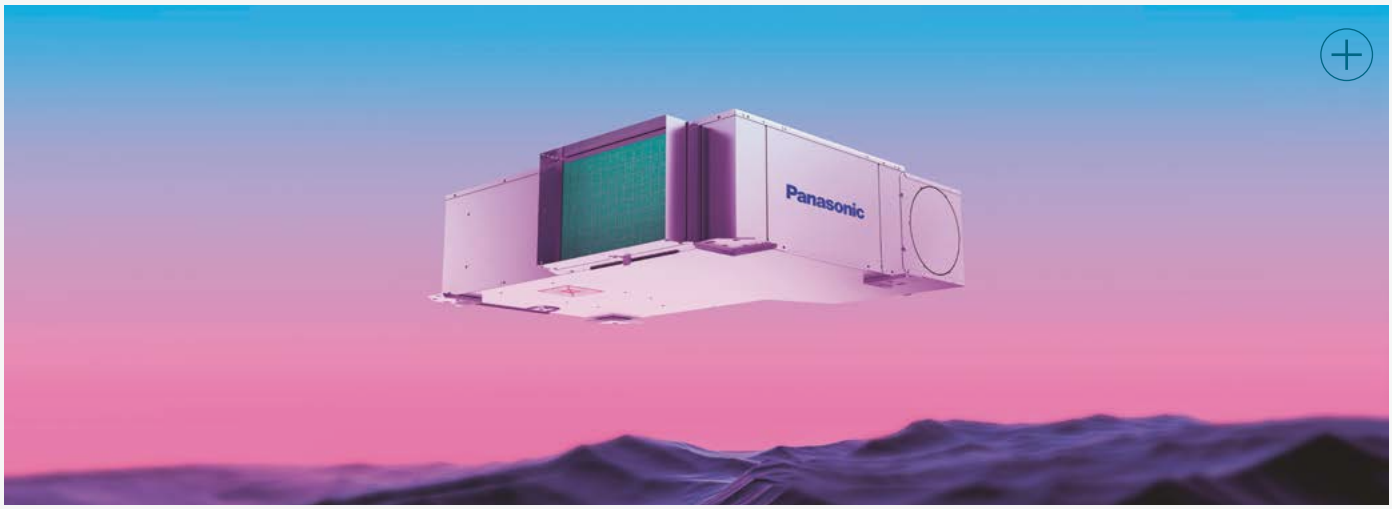
Perfect for any type of building, the system consists of water cooled chillers or heat pumps that provide cold or hot water to water terminals.

Fan coil units

Designed with user in mind, perfectly designed to adapt to any installation. Providing comfort to hotels, shops, restaurants, offices or residential applications.

Water source heat pumps

This solution offers improved comfort by having several different indoor climates inside a building, while maintaining the energy through an internal closed water loop.



Rooftops

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

CE

EUROVENT CERTIFIED PERFORMANCE 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: 01218Q30835R8L

ISO 9001: 2015
Panasonic Heating & Ventilation Air-Conditioning Italy and France
Cert. No.: IT321367

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

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. And in 2023 Panasonic started the production of air to water and water to water chillers and heat pumps, fan coils, water source heat pumps and rooftops in its Italian and French factories.
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.

43 Training Centers in 22 countries in Europe

The Panasonic PRO Academy.
Heating and Cooling business is changing rapidly, new technologies, new regulations, new solutions that require continuous update for professionals. Panasonic takes its responsibility to its distributors, specifiers and installers seriously and has developed a comprehensive training programme with 43 Training Centers in 22 countries in Europe.

100% Panasonic, the DNA of Japanese craftsmanship

Applying advanced technologies that truly make life better, we live by an unparalleled commitment to product quality.
Panasonic is building on the Japanese tradition of uncompromising quality control worldwide, developing and manufacturing fine products and delivering them to customers everywhere.

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

People who use our products can look forward to long years of high-quality performance without the need for constant service. As part of our rigorous design and development process, Panasonic air conditioners undergo a variety of stringent tests to ensure their effectiveness and long-term reliability. Tests for durability, waterproofing, shock resistance, and noise are conducted on component parts or on the finished products themselves.
As a result of all of these time consuming efforts, Panasonic air conditioners meet industrial standards and regulations in every country where they are sold.

International Standard Quality

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

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

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

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

Durability

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

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

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

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

The reasons to choose Panasonic as your partner

Unrivaled reliability and quality.
Panasonic solutions can be enjoyed for years to come, even in the most extreme climates.
Panasonic does not compromise on product quality, safety or durability, in order to provide the ultimate comfort when you need it most.

A wide variety of HVAC system solutions

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





1 Air cooled chillers, heat pumps and condensing units

The air cooled chiller variant of the system is also a fundamental part of many industrial processes.

2 Water cooled chillers, heat pumps and condenserless units

This system is particularly well suited for applications such as office buildings, hotels, shopping centers and hospitals.

3 Fan coil units

Panasonic offers various fan coil units designed to provide the best performance and comfort in any condition during the year. Available as ducted, floor, ceiling or wall-mounted units that offer a comfortable environment for commercial applications.

4 Water source heat pumps

Water source heat pumps are ideal for best in class hotels, offices or shopping centers. This solution offers improved comfort by having several different indoor climates inside a building, while maintaining the energy through an internal closed water loop.

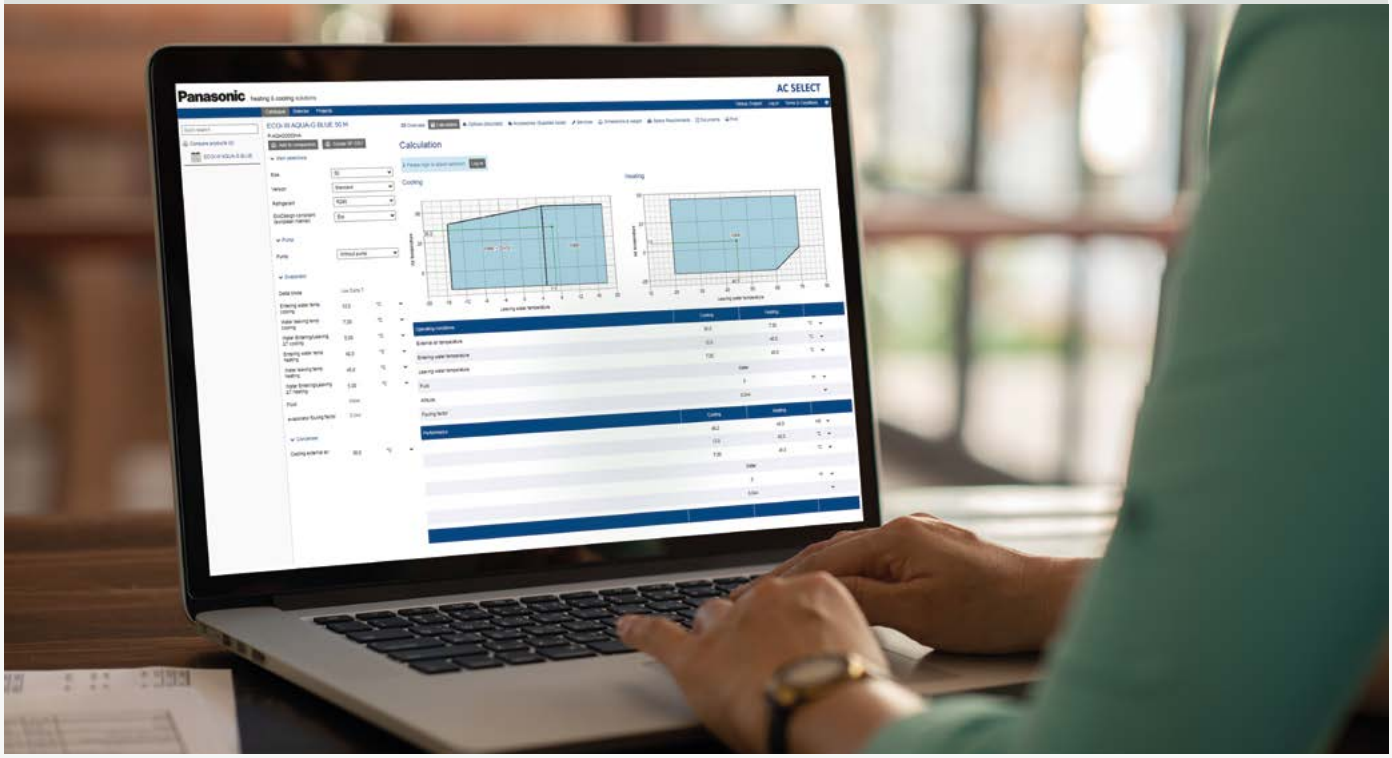
5 Rooftop

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

AC SELECT.

Use AC SELECT to choose and configure your hydronic solution.
Panasonic online selection software offers an easy and quick tool to specify all the hydronics ranges and rooftops at required conditions.

https://acselect.panasonic.eu/

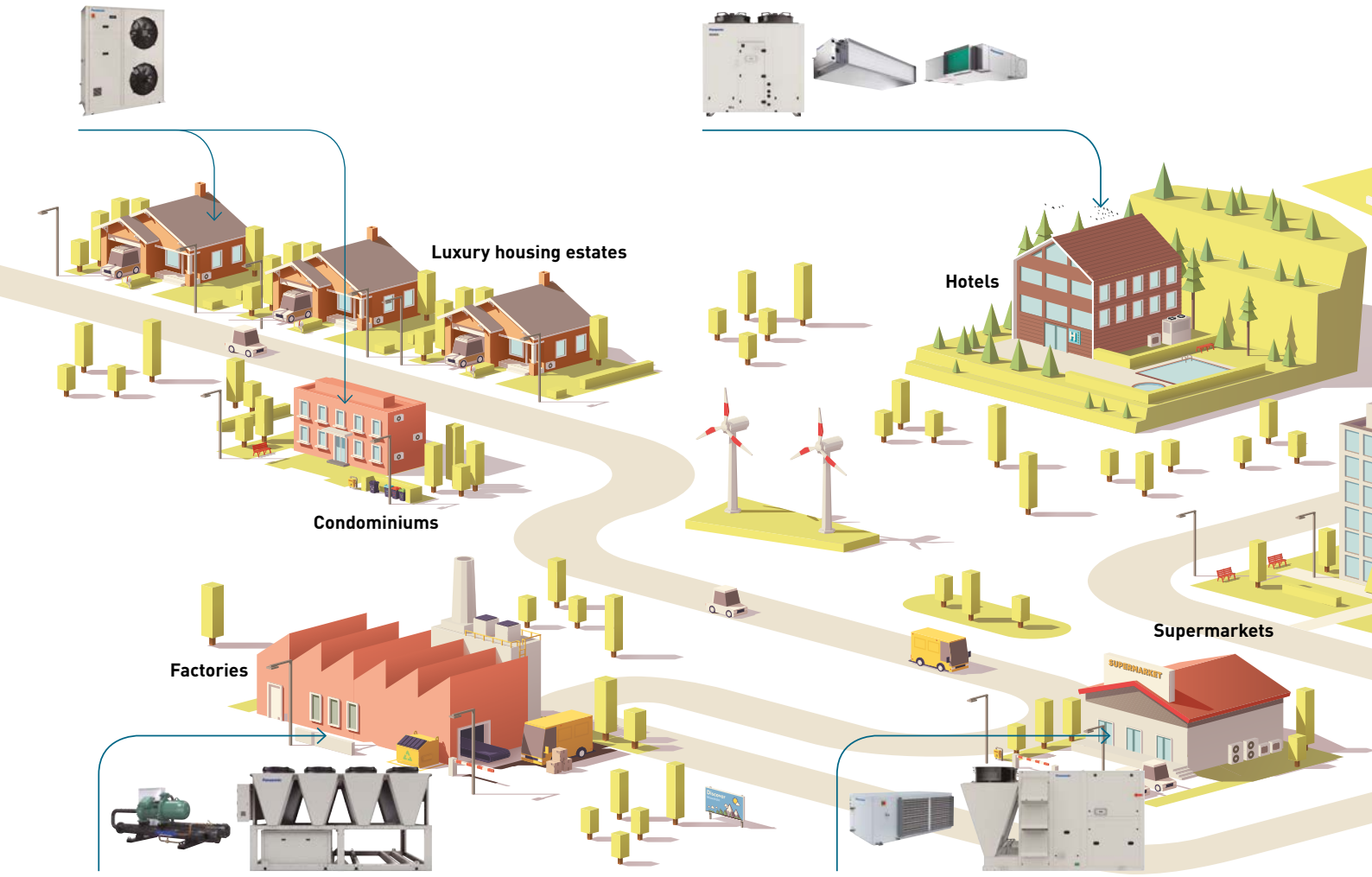


A wide coverage of application

Energy efficiency, high performance and comfort.

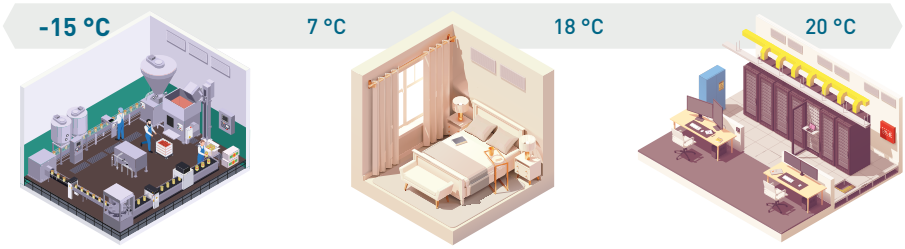
Chillers and heat pumps.
In residential applications a good indoor climate is important to ensure greater comfort and well-being. Our chillers and heat pump units with small capacities and DHW management are the ideal solutions.

Chillers and heat pumps, fan coils and water source heat pumps.
Ensuring a comfortable environment for the guests is the main challenge in all the types of hotel.
Panasonic offers a complete system thanks to the wide capacity range of its chillers, the design and low-noise operation of its fan coil units and the zone independent management of different spaces with its water source heat pumps.



Chillers and heat pumps.
Factories have high energy requirements. Panasonic chillers and heat pumps can meet this need due to the available capacity ranges. They also have high seasonal performance and are easy to install and maintain.

Chiller application temperatures.



Process cooling.
Food and wine, plastic and chemical industry.

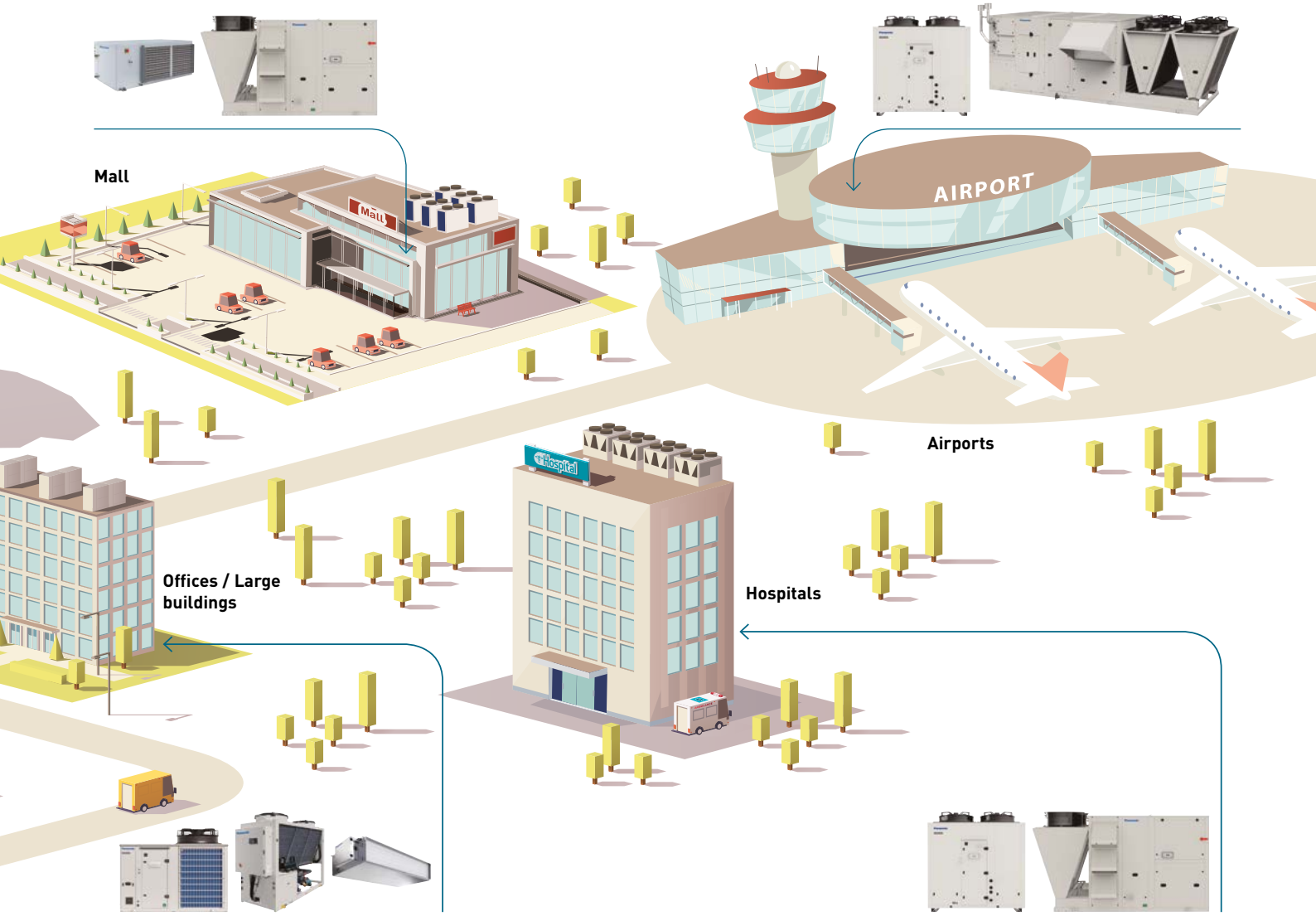
Comfort.
Fan coils, chilled beams, radiant floor.

IT cooling.
Server rooms, data centres.

Water source heat pumps and rooftops.
For supermarket applications, Panasonic has a wide range of solutions suitable to satisfy the required conditions: rooftops units can manage indoor ambient temperature and control the air quality, water source heat pumps have high efficiency and can allow independent zone management.

Water source heat pumps and rooftops.
Comfort and air conditioning needs in commercial buildings must take into account the high demand for energy, the high number of people during the day, and the need to heat or cool quickly, changing loads and constantly renewing air. Rooftops are the ideal solutions due to their high capacities and high air flow that ensures better air quality. Water source heat pumps, on the other hand, provide accurate local control of different spaces, with high reliability and allow the overall energy consumption to be broken down by zone.

Chillers and heat pumps, and rooftops.
Energy consumption at airports has significant variability, and the number of users and passengers fluctuates throughout the day. For optimal air quality management and to meet the large energy needs of facilities, Panasonic offers a wide range of solutions like chillers and heat pumps and rooftops that guarantee high efficiency and minimise waste energy consumption.



Chillers and heat pumps, and fan coils.
In offices, indoor climate is important for staff productivity and health. Panasonic chillers, heat pumps and fan coil units help create comfortable environments with high temperature control. Thanks to their natural refrigerant, R290 units are also the best solution for achieving high performance with reduced impact on the environment.

Chillers and heat pumps, and rooftops.
Hospitals require a high level of air quality and precise temperature control. Rooftop units are the best solutions due to their reliability and ability to provide fresh air through cooling, heating and ventilation of the building. The chiller and heat pump ranges help create an optimal indoor climate through their high performance and capacity. Our R32 ranges also have a low impact on the environment due to their low-GWP refrigerant.

Solutions for hospitals

ECOi-W Series offers a reliable solution with an optimised design for service and maintenance, making it ideal for hospital applications. Remote monitoring through the ECOi-W Cloud offers enhanced service support and a highly efficient fan coil range delivers increased comfort.

1

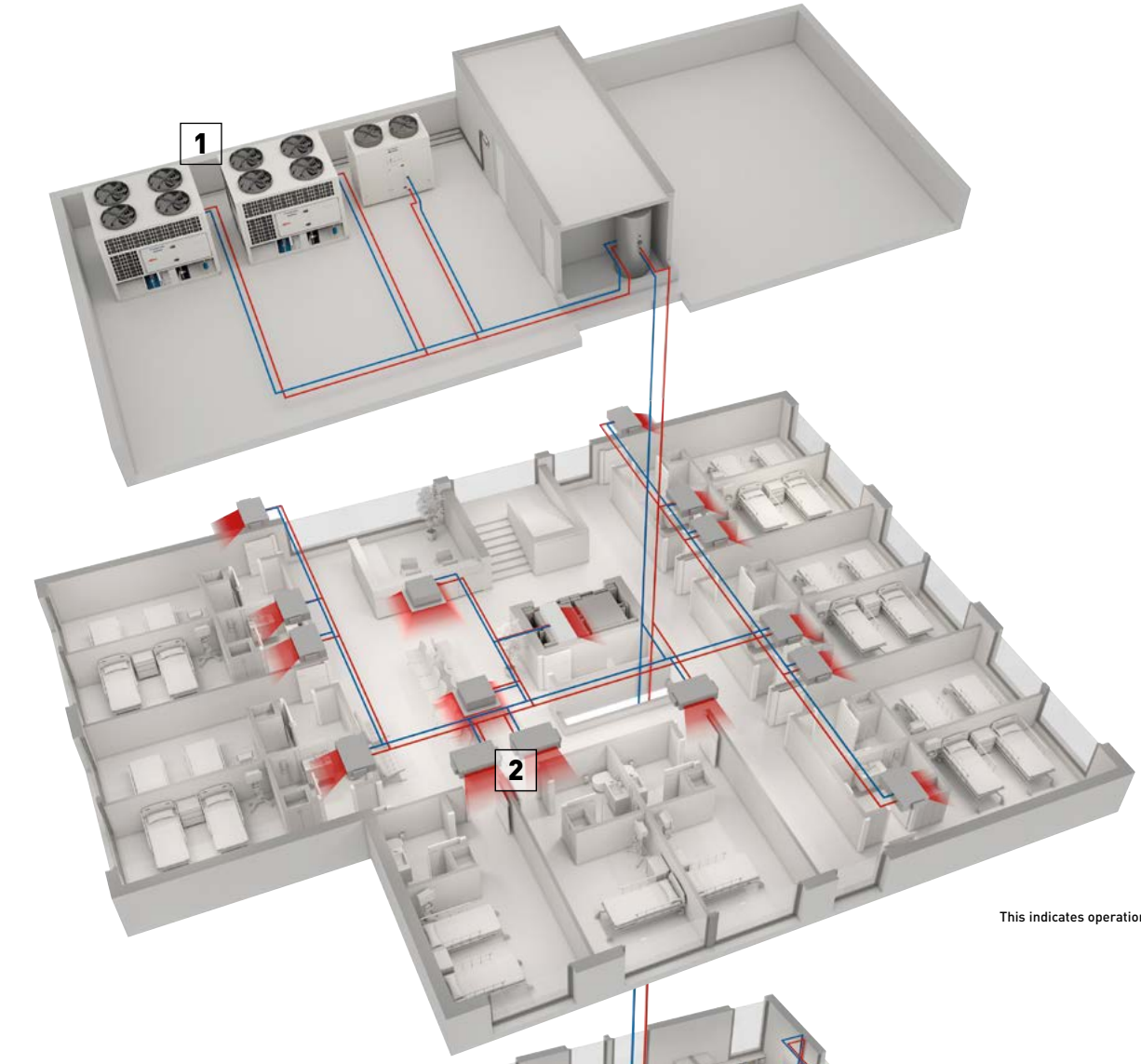
High quality chillers and heat pumps.
ECOi-W Series provides a fully customisable design to meet the business application needs, with a capacity range from 20 kW to 1650 kW. Reliable quality and an optimised design for service and maintenance are ideal for hospital projects.

2

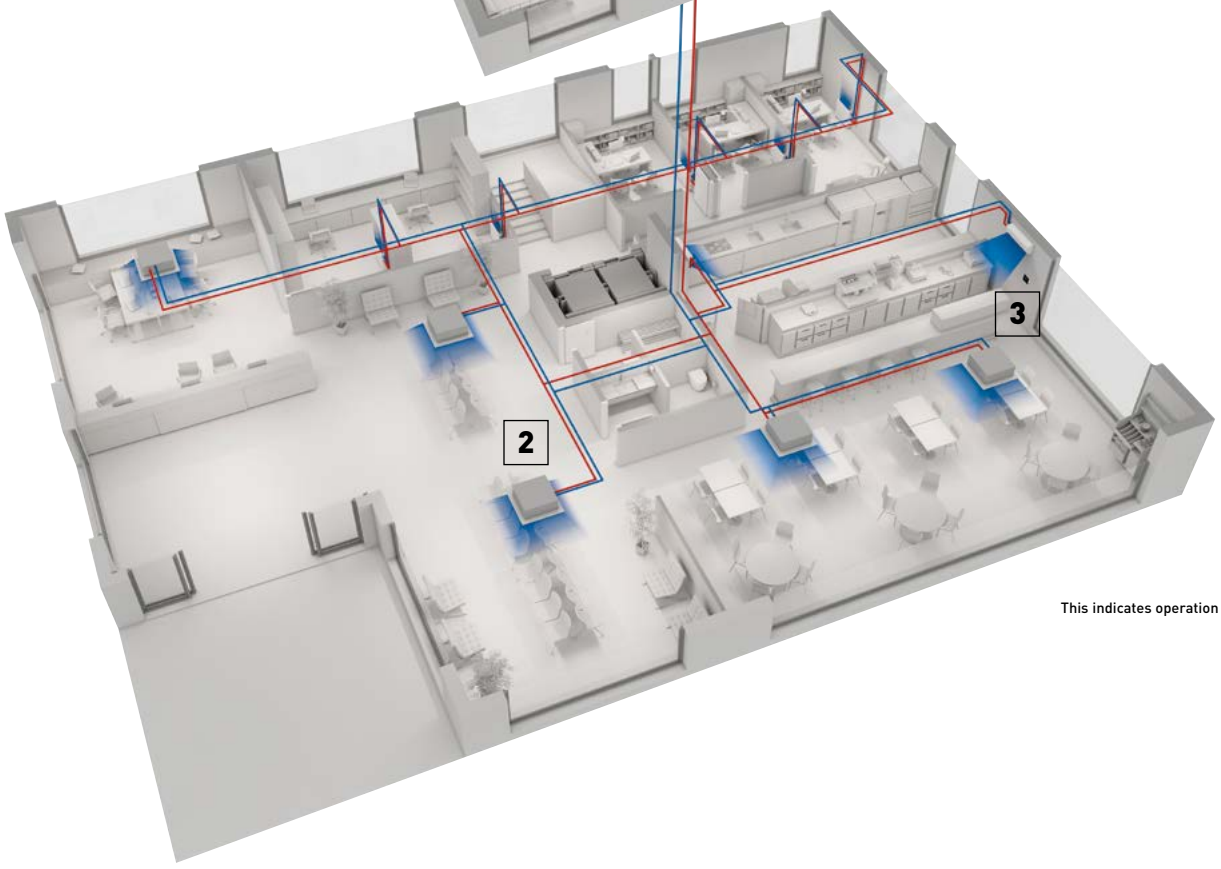
A wide variety of fan coils.
A wide variety of units to suit your needs, with flexible installation options. High efficiency and low noise operation allows for optimum comfort.
Operation in both heating and cooling is possible.

3

Intuitive controllers for fan coils.
Controllers with sophisticated designs provide a user friendly interface. An easy and low cost integration to building management systems.

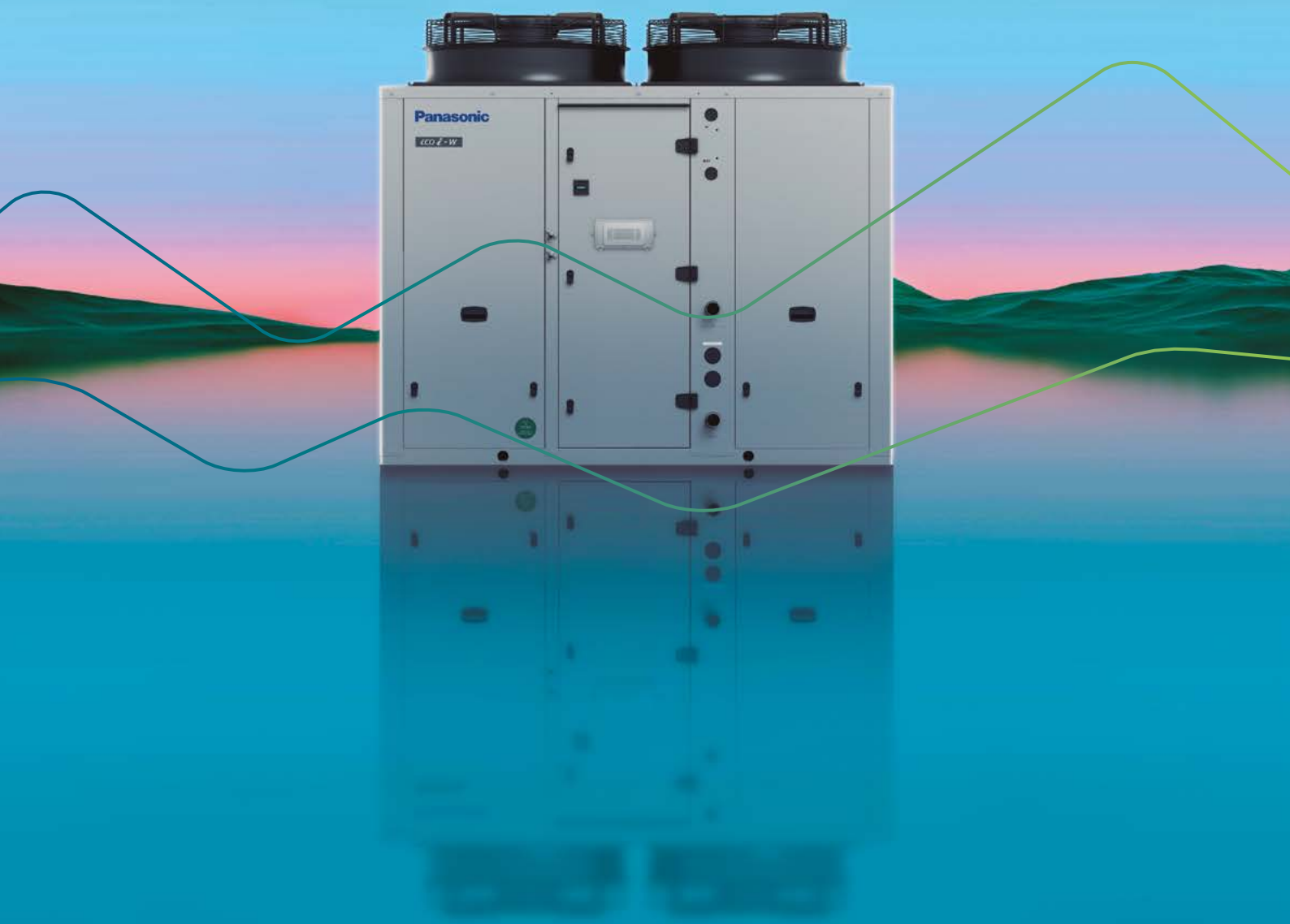


This indicates operation in winter.



This indicates operation in summer.

ECOi-W



Air cooled chillers, heat pumps and condensing units

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Air cooled chillers, heat pumps and condensing units

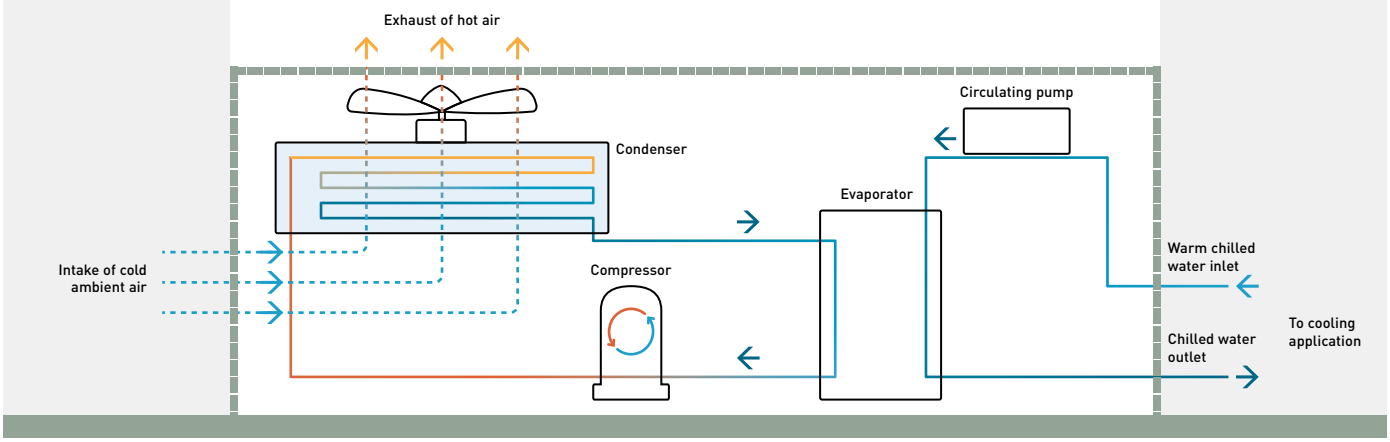
Energy efficiency, high performance and comfort!
Our hydronic systems offer the perfect combination of comfort and high efficiency. They are perfect for any type of building. The air cooled chiller variant of the system is also a fundamental part of many industrial processes.

An air cooled chiller uses ambient air to cool and condense the hot refrigerant in the condenser.

Advantages:

· Simple design (no need for cooling systems such as cooling towers), low installation costs
· Small footprint, easier to maintain and manage than water cooled systems
· Reduced initial cost

* The below illustration show cooling application.



Compressors and refrigerants combination

R290 R32 R410A

R513A

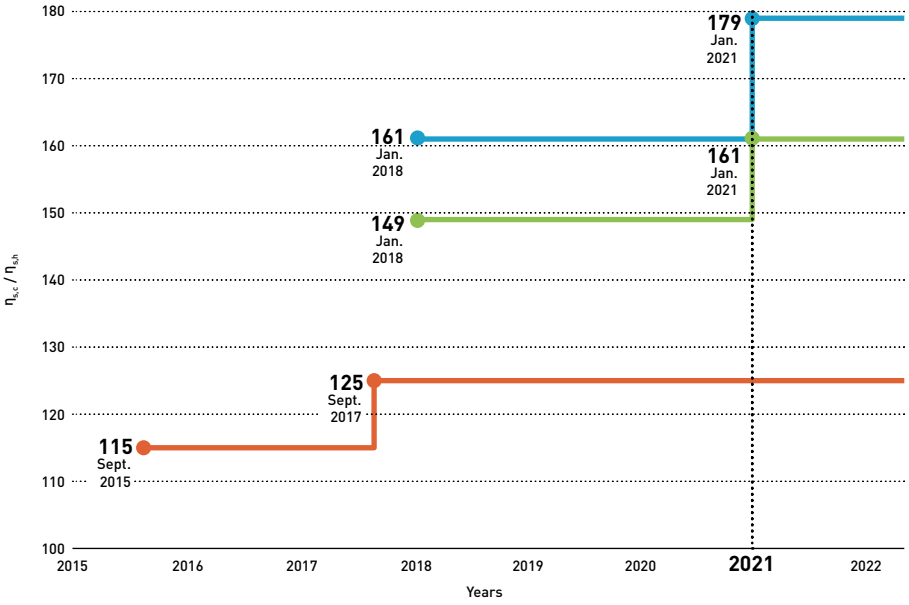
Scroll compressors.
Scroll compressors have excellent low vibration and low noise properties.
Compact in size and suitable for designs where space is restricted.

Screw compressors.
Screw compressors can be operated continuously and are therefore suitable for applications where a constant and consistent cooling load is required.
Due to their high energy efficiency, our products use these compressors in combination with high-efficiency refrigerants.

Microchannel coils

Significant reduction on refrigerant charge and operating weight.

Ecodesign



Air to water comfort cooling only [1].

≤400 kW.
Minimum $\eta_{s,c}$ to be Ecodesign compliant.
COMMISSION REGULATION (EU) 2016/2281.

>400 kW.
Minimum $\eta_{s,c}$ to be Ecodesign compliant.
COMMISSION REGULATION (EU) 2016/2281.

Air to water heat pumps [2].

≤400 kW.
Minimum $\eta_{s,h}$ to be Ecodesign compliant.
COMMISSION REGULATION (EU) No813/2013.

>400 kW.
Minimum $\eta_{s,h}$ to be Ecodesign compliant.
COMMISSION REGULATION (EU) 2016/2281.

1) Calculated at nominal conditions: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB.
2) Rated heat output of space heaters and combination heaters at reference design conditions (Tdesign -10 °C) as stated in COMMISSION REGULATION (EU) No 813/2013.

ECOi-W AQUA-G BLUE R290. A revolutionary solution

Air to water reversible heat pumps.

Introducing a revolutionary solution for sustainable cooling and heating needs, ECOi-W AQUA-G BLUE powered by R290, a natural refrigerant. It delivers both sustainability and efficiency in one innovative package.

The future of efficient commercial air to water heat pumps.

R290
NATURAL REFRIGERANT

50 kW	60 kW	70 - 80 kW

Natural refrigerant R290 with GWP 3

Reliable quality

Scroll compressors

HIGH SEER Max. 4,4[1] HIGH SCOP Max. 3,9[2]

High seasonal efficiency

A++[3]

High energy efficiency class

DHW management

70 °C

Maximum 70 °C leaving water temperature

Quiet operation

640 kW

Boost the capacity up to 640 kW

1) Size 50. According EN14825 and Following COMMISSION REGULATION (EU) 2016/2281.2) Size 70. According EN14825 and Following COMMISSION REGULATION (EU) No 813/2013. 3) (Scale A+++ to D). According EN14825 and Following COMMISSION REGULATION (EU) No 813/2013.

Air cooled heat pumps R290.

Care about the environment and get greater efficiency.
ECOi-W AQUA-G BLUE is born from a perfect combination of new green technology and our existing ECOi-W product range already known for its performance and reliability.
It operates with the natural R290 refrigerant that offers greater efficiency while having almost no impact on the environment with one of the lowest **GWP (Global Warming Potential): only 3!**
Make the choice to reach incredible efficiencies, extend the operating limits, and contribute to environmental preservation.

Quick selection guide - Air cooled chillers

Page		Size	Cooling capacity	SEER	Water flow (m³/h)	Sound power (dB(A))	Dimensions L x H x W (mm)
ECOi-W AQUA C · R410A		20	19,2	**4,78**	3,3	75	1000 x 1983 x 1000
		25	24,3	**4,38**	4,2	75	1000 x 1983 x 1000
P. 30		30	27,1	**4,43**	4,7	75	1000 x 1983 x 1000
		35	36,7	**4,43**	6,3	76	1000 x 1983 x 1000
		40	39,0	**4,48**	6,7	76	1000 x 1983 x 1000
		45	45,3	**4,40**	7,8	80	2180 x 1986 x 1160
		55	52,0	**4,53**	8,9	80	2180 x 1986 x 1160
P. 32		65	66,1	**4,53**	11,4	80	2180 x 1986 x 1160
		75	73,1	**4,68**	12,6	80	2180 x 1986 x 1160
		90	90,9	**4,45**	15,6	83	2180 x 2286 x 1160
		105	104,0	**4,50**	17,9	83	2180 x 2286 x 1160
		125	123,0	**4,55**	21,2	83	2180 x 2286 x 1160
		140	132,0	**4,40**	22,7	85	2856 x 2295 x 2210
		150	146,0	**4,45**	25,1	85	2856 x 2295 x 2210
P. 34		170	164,0	**4,38**	28,2	87	2856 x 2321 x 2210
		190	181,0	**4,40**	31,1	88	2856 x 2321 x 2210
		210	208,0	**4,25**	35,8	88	2856 x 2321 x 2210
ECOi-W AQUA-Z C · R32		50	51,6	**4,60**	9,2	83	2180x x 1986 x 1160
		60	57,6	**4,59**	10,6	84	2180x x 1986 x 1160
		70	69,7	**4,61**	12,2	81	2180x x 1986 x 1160
		75	78,2	**4,72**	13,2	81	2180x x 1986 x 1160
P. 36		85	82,8	**4,45**	14,7	84	2180x x 2286 x 1160
		100	100,0	**4,88**	17,9	86	2180x x 2286 x 1160
		115	116,0	**4,59**	21,1	87	2180x x 2286 x 1160
		130	126,0	**4,43**	23,5	87	2180x x 2286 x 1160
		150	154,0	**4,70**	27,2	89	2180 x 2286 x 1160
P. 38		170	173,0	**4,68**	30,7	91	2180 x 2286 x 1160

* Dimensions without water tank.

Page	Size	Cooling capacity	SEER	Water flow (m³/h)	Sound power (dB(A))	Dimensions L x H x W (mm)
ECOi-W AQV C · R410A	85	83,5	**4,55**	14,3	84	2555 x 2185 x 1095
	95	93,6	**4,80**	16,1	84	2555 x 2185 x 1095
	105	103,0	**4,78**	17,6	84	2555 x 2185 x 1095
	115	110,1	**4,80**	19,0	84	2555 x 2185 x 1095
	125	121,9	**4,73**	21,0	88	3155 x 2185 x 1095
	140	136,6	**4,53**	23,5	88	3155 x 2185 x 1095
ECOi-W AQUA EVO C · R410A	140	144	**4,45**	24,8	90	4000 x 2500 x 1100
	170	169	**4,28**	29,1	90	4000 x 2500 x 1100
	230	231	**4,25**	39,6	92	3500 x 2500 x 2150
	260	263	**4,25**	45,2	93	3500 x 2500 x 2150
	280	284	**4,23**	48,8	93	3500 x 2500 x 2150
	300	310	**4,18**	53,2	94	4550 x 2500 x 2150
	330	331	**4,20**	56,9	95	4550 x 2500 x 2150
	360	362	**4,10**	62,1	95	4550 x 2500 x 2150
	400	398,8	**4,48**	68,6	92	4580 x 2500 x 2175
	450	446,1	**4,43**	76,8	93	5620 x 2500 x 2175
	490	487,7	**4,50**	84,0	93	6680 x 2500 x 2175
	530	533,9	**4,38**	91,9	94	6680 x 2500 x 2175
	600	597,1	**4,58**	103	94	7760 x 2500 x 2175
	670	667,3	**4,65**	115	94	7760 x 2500 x 2175
	750	748,3	**4,48**	129	95	8900 x 2500 x 2175
	800	797,9	**4,50**	138	95	8900 x 2500 x 2175
ECOi-W SW-N EVO C · R513A	380	365,7	**4,53**	62,8	97	4660 x 2510 x 2192
	440	443,0	**4,66**	76,1	98	5712 x 2510 x 2192
	510	500,2	**4,65**	85,9	100	5712 x 2510 x 2192
	590	565,8	**4,80**	97,2	100	6764 x 2510 x 2192
	660	643,5	**4,66**	111	100	7816 x 2510 x 2192
	730	704,3	**4,56**	121	101	7816 x 2510 x 2192
	810	778,1	**4,62**	134	101	8868 x 2510 x 2192
	900	896,9	**4,56**	154	102	9920 x 2510 x 2192
	980	983,5	**4,60**	169	102	10972 x 2510 x 2192
	1060	1047,4	**4,87**	180	103	12024 x 2510 x 2192
	1160	1154,0	**4,86**	198	103	13076 x 2510 x 2192
	1260	1240,5	**4,85**	213	103	13076 x 2510 x 2192

P. 40

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* Dimensions without water tank.

Quick selection guide - Air cooled heat pumps

Page	Size	Cooling and heating capacity	SEER / SCOP	Water flow (m³/h)	Sound power (dB(A))	Dimensions L x H x W (mm)
ECOi-W AQUA EVO H · R410A	20	21 kW / 20,4 kW	**3,30 / 3,75**	3,64	74	1477 x 1615 x 539
	30	28 kW / 26,1 kW	**3,98 / 3,68**	5,92	75	1477 x 1615 x 539
P. 26						
ECOi-W AQUA-G BLUE H · R290	50	48,2 / 49,2	**4,40 / 3,70**	8,46	83	2215 x 1730 x 1032
	60	56,1 / 61,1	**4,30 / 3,70**	10,51	84	2180 x 2011 x 1160
P. 28	70	64,9 / 73,5	**4,30 / 3,90**	12,64	85	2180 x 2030 x 1160
	80	74,1 / 83,6	**4,20 / 3,80**	14,38	85	2180 x 2030 x 1160
ECOi-W AQUA H · R410A	20	18,7 / 19,5	**4,68 / 3,50**	3,4	75	1000 x 1983 x 1000
	25	23,7 / 26,9	**4,31 / 3,38**	4,7	75	1000 x 1983 x 1000
P. 30	30	26,4 / 29,7	**4,28 / 3,45**	5,2	75	1000 x 1983 x 1000
	35	35,8 / 37,3	**4,25 / 3,50**	6,5	76	1000 x 1983 x 1000
	40	38,1 / 41,6	**4,33 / 3,50**	7,2	76	1000 x 1983 x 1000
	45	44,3 / 48,5	**4,20 / 3,38**	8,4	80	2180 x 1986 x 1160
	55	50,9 / 58,2	**4,41 / 3,38**	10,2	80	2180 x 1986 x 1160
P. 32	65	64,1 / 67,3	**4,51 / 3,55**	11,7	80	2180 x 1986 x 1160
	75	71,0 / 76,0	**4,63 / 3,53**	13,2	80	2180 x 1986 x 1160
	90	88,7 / 88,2	**4,40 / 3,40**	15,3	83	2180 x 2286 x 1160
	105	101,0 / 101,0	**4,44 / 3,43**	17,6	83	2180 x 2286 x 1160
	125	119,0 / 119,0	**4,49 / 3,43**	20,7	83	2180 x 2286 x 1160
	140	128 / 144	**4,39 / 3,30**	24,8	85	2856 x 2295 x 2210
	150	142 / 154	**4,36 / 3,33**	26,5	85	2856 x 2295 x 2210
P. 34	170	164 / 170	**4,31 / 3,30**	29,6	87	2856 x 2321 x 2210
	190	178 / 195	**4,23 / 3,28**	33,9	88	2856 x 2321 x 2210
	210	208 / 218	**4,28 / 3,23**	37,9	88	2856 x 2321 x 2210
ECOi-W AQUA-Z H · R32	50	51,1 / 56,0	**4,46 / 3,63**	9,3	83	2180 x 1986 x 1160
	60	57,0 / 63,0	**4,42 / 3,51**	10,7	84	2180 x 1986 x 1160
P. 36	70	69,0 / 75,1	**4,51 / 3,49**	12,5	81	2180 x 1986 x 1160
	75	77,4 / 83,6	**4,61 / 3,56**	13,9	81	2180 x 1986 x 1160
	85	82,0 / 90,7	**4,33 / 3,76**	15,0	84	2180 x 2286 x 1160
	100	99,3 / 110,0	**4,77 / 3,56**	18,3	86	2180 x 2286 x 1160
	115	115,0 / 125,0	**4,44 / 3,77**	21,5	87	2180 x 2286 x 1160
	130	125,0 / 139,0	**4,23 / 3,81**	23,9	87	2180 x 2286 x 1160

* Dimensions without water tank.

Page	Size	Cooling and heating capacity	SEER / SCOP	Water flow (m³/h)	Sound power (dB(A))	Dimensions L x H x W (mm)
ECOi-W AQUA-Z H · R32	150	152 / 163	**4,59 / 3,78**	27,5	89	3789 x 2285 x 1151
	170	170 / 187	**4,49 / 3,70**	31,7	91	3789 x 2285 x 1151
P. 38						
ECOi-W AQV H · R410A	85	81 / 91,8	**4,25 / 3,61**	17,2	84	2555 x 2185 x 1095
	95	89,9 / 102,8	**4,68 / 3,64**	17,8	84	2555 x 2185 x 1095
	105	98,9 / 110	**4,63 / 3,78**	19,3	84	2555 x 2185 x 1095
	115	106,9 / 119	**4,17 / 3,77**	20,6	84	2555 x 2185 x 1095
	125	115,8 / 134	**4,33 / 3,47**	23,3	88	3155 x 2185 x 1095
P. 40	140	129,2 / 146,9	**4,28 / 3,54**	25,5	88	3155 x 2185 x 1095
ECOi-W VL H · R410A	704	173,2 / 200,1	**3,63 / 3,41**	34,7	93	4300 x 2300 x 1100
	804	197,1 / 223,2	**3,55 / 3,42**	38,6	93	4300 x 2300 x 1100
	904	226,4 / 254,7	**3,35 / 3,28**	43,6	94	4300 x 2300 x 1100
	1004	246,3 / 270,8	**3,50 / 3,39**	47,0	94	4300 x 2300 x 1100
	1104	273,1 / 302,1	**3,53 / 3,30**	52,3	95	4300 x 2300 x 1100
P. 44	1204	299,9 / 337,4	**3,43 / 3,19**	58,4	95	4300 x 2300 x 1100
ECOi-W AQUA EVO H · R410A	140	136,7 / 144,9	**3,80 / 3,39**	25,1	90	4000 x 2500 x 1100
	170	154,5 / 165,7	**3,95 / 3,42**	28,7	90	4000 x 2500 x 1100
	230	213,6 / 229	**4,13 / 3,46**	39,7	92	3500 x 2500 x 2150
	260	243,7 / 262,3	**4,05 / 3,48**	45,5	93	3500 x 2500 x 2150
	280	261,1 / 279,6	**4,10 / 3,44**	48,5	93	3500 x 2500 x 2150
	300	287,8 / 305,6	**3,83 / 3,51**	53,0	94	4550 x 2500 x 2150
	330	307,4 / 327,2	**3,80 / 3,44**	56,8	95	4550 x 2500 x 2150
P. 48	360	340,5 / 361,4	**3,93 / 3,48**	62,7	95	4550 x 2500 x 2150
	400	373,5 / 404	**4,65 / 3,62**	70,1	92	5620 x 2500 x 2175
	450	419,2 / 450,9	**4,53 / 3,62**	78,3	93	5620 x 2500 x 2175
	490	454,5 / 492,7	**4,70 / 3,53**	85,5	93	6680 x 2500 x 2175
	530	489,7 / 532,1	**4,55 / 3,53**	92,3	94	6680 x 2500 x 2175
	580	535,7 / 585,8	**4,33 / —**	102,0	94	7760 x 2500 x 2175
	620	581,5 / 627,7	**4,35 / —**	109,0	95	8800 x 2500 x 2175
	670	625,4 / 677,8	**4,30 / —**	118,0	95	8800 x 2500 x 2175
P. 52	750	701,4 / 758,3	**4,30 / —**	131,0	95	9950 x 2500 x 2175
	800	748,1 / 807,3	**4,35 / —**	140,0	95	9950 x 2500 x 2175

* Dimensions without water tank.

Quick selection guide - Air cooled condensing units

Page	Size	Cooling capacity	EER	Sound power (dB(A))	Dimensions L x H x W (mm)
ECOi-W AQUA E · R410A					
 **P. 30**	25	32,4	**3,24**	75	1000 x 1983 x 1000
	30	33,7	**3,15**	75	1000 x 1983 x 1000
	35	43,1	**2,90**	76	1000 x 1983 x 1000
	40	44,8	**2,99**	76	1000 x 1983 x 1000
	45	57,4	**2,94**	80	2180 x 1986 x 1160
	55	64,5	**2,89**	80	2180 x 1986 x 1160
 **P. 32**	65	72,4	**2,97**	80	2180 x 1986 x 1160
	75	79,3	**2,91**	80	2180 x 1986 x 1160
	90	104,0	**2,65**	83	2180 x 2286 x 1160
	105	120,0	**2,79**	83	2180 x 2286 x 1160
	125	136,0	**2,66**	83	2180 x 2286 x 1160
ECOi-W AQV E · R410A					
	85	92,1	**3,36**	84	2555 x 2185 x 1095
	95	103,2	**3,29**	84	2555 x 2185 x 1095
 **P. 40**	105	113,2	**3,32**	84	2555 x 2185 x 1095
	115	121,8	**3,30**	84	2555 x 2185 x 1095
	125	134,7	**3,23**	88	3155 x 2185 x 1095
	140	151,0	**3,23**	88	3155 x 2185 x 1095

* Dimensions without water tank.

Page	Size	Cooling capacity	EER	Sound power (dB(A))	Dimensions L x H x W (mm)
ECOi-W VL E · R410A	704	199	**2,90**	93	4300 x 2300 x 1100
	804	224	**3,00**	93	4300 x 2300 x 1100
	904	258	**2,98**	94	4300 x 2300 x 1100
P. 44	1004	283	**3,12**	94	4300 x 2300 x 1100
	1104	315	**2,98**	95	4300 x 2300 x 1100
	1204	347	**2,90**	95	4300 x 2300 x 1100
ECOi-W AQUA EVO E · R410A	140	165	**3,61**	90	4000 x 2500 x 1100
	170	193,4	**3,48**	90	4000 x 2500 x 1100
	230	250,3	**3,36**	92	3500 x 2500 x 2150
	260	288,4	**3,42**	93	3500 x 2500 x 2150
P. 48	280	312,7	**3,42**	93	3500 x 2500 x 2150
	300	337,2	**3,39**	94	4550 x 2500 x 2150
	330	361,2	**3,45**	95	4550 x 2500 x 2150
	360	394,5	**3,37**	95	4550 x 2500 x 2150

* Dimensions without water tank.

ECOi-W AQUA EVO H · R410A

Air cooled heat pumps Inverter.

Cooling capacity: 20,0 to 35,9 kW.
Heating capacity: 20,4 to 34,0 kW.

The range at a glance

· 1 version: H (heat pump)
· 2 sizes

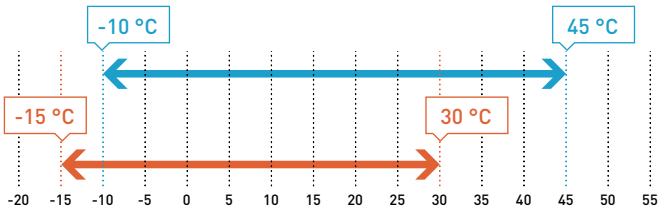
Advantages

· Wide load variation capability:
  - Cooling operation down to 30% and up to 140% of nominal capacity
  - Heating operation down to 40% and up to 130% of nominal capacity
· Unit optimization in heating mode for both fan coil and floor applications
· Wide operating limits in heating mode
· Domestic Hot Water management
· Inverter compressor
· New fan motors (ErP compliant) with integrated grill and fan speed control as standard

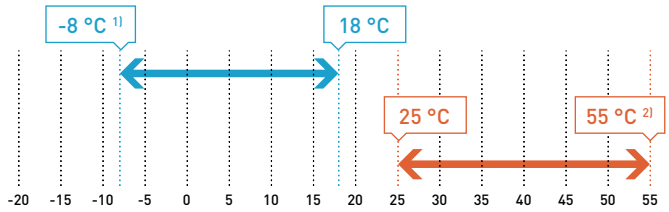
Operating limits

To be confirmed with AC SELECT:
https://acselect.panasonic.eu/

Ambient temperature.



Leaving water temperature.



Cooling: outside air temperature (°C (DB)). Heating: outside air temperature (°C (WB)).
1) Below 5 °C, glycol is required. For operation below 0 °C contact sales office.
2) Maximum leaving water temperature 55 °C (minimum outdoor air temperature -10 °C size 20, -15 °C size 30) to be confirmed with AC SELECT.
Chillers suitable for operation without buffer tank for water content greater than 2,5 liters of water per kW of output.

Equipment

· Inverter driven compressor
· Plate evaporator (AISI 316)
· A single inverter driven 3-phase scroll compressor equipped with variable frequency brushless motor (20-120 Hz)
· 1 refrigerant circuit
· Bi-flow electronic expansion valve
· Multistage centrifugal pump as standard
· Bluefin coil
· Operating low water content in the plant
· Automatic circuit breaker
· Coil grilles
· Fan speed control
· Power factor corrector capacitors
· Phase sequence control
· Soft starter
· Water differential pressure switch
· Water filter
· DHW function available on the controller with DHW probe and 3 way valve available as options

AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical performance

Size			20	30
ECOi-W AQUA EVO H			**P-AQAVE0020HA**	**P-AQAVE0030HA**
Power supply	Voltage	V	400	400
	Phase		Three phase	Three phase
	Frequency	Hz	50	50
Cooling capacity [1]	Nominal (Min - Max)	kW	20,0 (9,33 - 28,0)	29,0 (13,9 - 35,9)
Input power [1]	Nominal (Min - Max)	kW	4,15 (2,38 - 6,61)	7,24 (3,51 - 13,0)
EER [1]	Nominal (Min - Max)		4,82 (3,92 - 4,24)	4,01 (3,96 - 2,76)
Cooling capacity [2]	Nominal (Min - Max)	kW	21,0 (6,60 - 25,2)	28,0 (9,43 - 31,1)
Input power [2]	Nominal (Min - Max)	kW	6,95 (2,52 - 10,3)	10,9 (3,14 - 12,4)
EER [2]	Nominal (Min - Max)		3,02 (2,62 - 2,45)	2,57 (3,00 - 2,51)
EER 75%			3,83	3,65
EER 50%			4,53	4,48
EER 25%			3,80	4,79
SEER [3]			**3,30**	**3,98**
$\eta_{s,c}$ [3]			**129**	**156**
Nominal water flow (in the evaporator)		m^3/h	3,64	5,92
Heating capacity [4]	Nominal (Min - Max)	kW	20,4 (9,94 - 29,4)	26,1 (11,5 - 34,0)
Input power [4]	Nominal (Min - Max)	kW	5,02 (2,98 - 8,37)	6,45 (3,01 - 9,80)
COP [4]	Nominal (Min - Max)		4,06 (3,34 - 3,51)	4,05 (3,82 - 3,47)
Heating capacity [5]	Nominal (Min - Max)	kW	20,4 (8,90 - 27,4)	26,1 (10,2 - 33,9)
Input power [5]	Nominal (Min - Max)	kW	6,44 (3,34 - 9,64)	8,42 (3,97 - 11,6)
COP [5]	Nominal (Min - Max)		3,17 (2,66 - 2,84)	3,10 (2,57 - 2,91)
SCOP [6] [7]			**3,75**	**3,68**
Energy efficiency class [6] [7]			**A+**	**A+**
$\eta_{s,h}$ [6] [7]			**147**	**144**
SCOP [6] [8]			**3,00**	**2,95**
Energy efficiency class [6] [8]			**A+**	**A+**
$\eta_{s,h}$ [6] [8]			**117**	**115**
Nominal water flow (in the evaporator)		m^3/h	3,64	5,92
Sound power [9]		dB(A)	74	75
Sound pressure at 10 m [10]		dB(A)	43	44

Physical features

ECOi-W AQUA EVO H			20	30
Dimension	H x W x L	mm	1615 x 539 x 1477	1615 x 539 x 1477
Operating weight		kg	260	275
Water connections				
Type of water connections (evaporator)			Male gas threaded	Male gas threaded
Water inlet/outlet diameter		Inch	1 ¼	1 ¼

1) According EN14511-2013: chilled water inlet/outlet temperature: 23/18 °C, outdoor ambient temperature 35 °C. 2) According EN14511-2013: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 3) According to EN14825 standard. 4) According EN14511-2013: warm water inlet/outlet temperature: 30/35 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 5) According EN14511-2013: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 6) ErP compliant: following COMMISSION REGULATION (EU) No 813/2013. 7) According to EN14825 standard - low temperature application (35 °C). 8) According to EN14825 standard - medium temperature application (55 °C). 9) Sound levels are at fully loaded conditions. Sound power values refers to ISO 3744 standard. 10) Sound pressures refer to ISO 3744 standard, parallelepiped shape.

Accessories and options
Buffer tank placed under unit
Chassis acoustic insulation
Coils treatments

Accessories and options
In/out valve kit
Remote ON / OFF
Water flow switch

ErP | HIGH SEER 3,98 | HIGH SCOP 3,75 | INVERTER | AIR COOLED | PLATE HEAT EXCHANGER | SCROLL INVERTER COMPRESSOR | DHW

ECOi-W AQUA-G BLUE 50-80 H · R290

Air cooled heat pumps.

Cooling capacity: 48,2 to 74,1 kW.
Heating capacity: 49,2 to 83,6 kW.

R290 NATURAL REFRIGERANT

The range at a glance

· 1 version: H (heat pump)
· 4 sizes

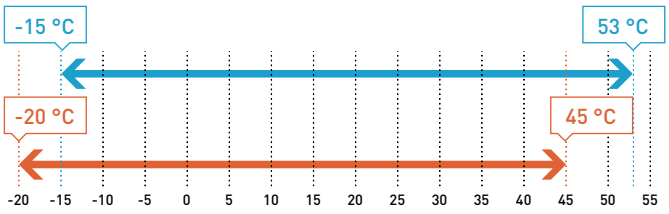
Advantages

· A super eco-friendy unit - employs natural refrigerant R290 with GWP 3
· Very high performance and improved energy efficiencies
· Smart energy consumption
· Expanded operating limit
· Domestic Hot Water management
· Compact chassis
· Very quiet operation
· Cascade controller available for multi-system operation
· SG ready
· Very low refrigerant charge
· Reliable safety measurements

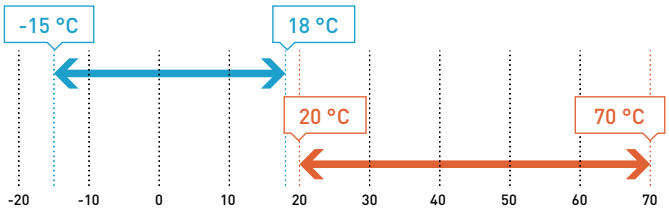
Operating limits

To be confirmed with AC SELECT:
https://acselect.panasonic.eu/

Ambient temperature.



Leaving water temperature.



Equipment

· Fan speed control. All units are equipped with EC fan technology
· Variable speed pump - option. A variable speed pump can be added to the unit for even greater energy savings
· Controller. This new high standard control system provides excellent pressure control, as well as global and optimised unit management
· Removable panels. Great accessibility to internal components for service operations
· Condenser. Highly optimised heat exchanger design enables a refrigerant charge reduction. Lower than 5,0 kg of R290 for the sizes 50 and 60
· Sealed electrical box. Non-flammable control box. The core parts are protected with a sealed metallic box
· Electronic expansion valve. This reliable and high-performant valve minimises overheating of the evaporator. It is directly managed by the control system
· Modbus RTU, Modbus TCP/IP, BACnet MSTP or BACnet IP
· Leak detector and safety ventilation fans to detect R290 leakages and exhaust refrigerant to atmosphere in the event of a leak
· DHW function available on the controller with DHW probe and 3 way valve available as options

AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical performance

Size			50	60	70	80
Power supply	Voltage	V	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50
ECOi-W AQUA-G BLUE 50-80 H EC fan - heat pump			**P-AQAG0050HA**	**P-AQAG0060HA**	**P-AQAG0070HA**	**P-AQAG0080HA**
Cooling capacity [1]		kW	48,2	56,1	64,9	74,1
Input power [1]		kW	15,0	19,0	21,6	25,0
EER [1]			3,20	3,00	3,00	3,00
SEER [2]			**4,40**	**4,30**	**4,30**	**4,20**
$\eta_{s,c}$ [2]		**%**	**171,9**	**168,9**	**169,4**	**165,4**
Heating capacity [3]		kW	49,2	61,1	73,5	83,6
Input power [3]		kW	15,6	18,6	21,7	24,9
COP [3]			3,2	3,3	3,4	3,4
SCOP [4]			**3,70**	**3,70**	**3,90**	**3,80**
$\eta_{s,h}$ [4]			**143,7**	**146,8**	**151,8**	**150,5**
Energy efficiency class (SCOP) [4]			**A+**	**A+**	**A++**	**A++**
$SCOP_{MT}$ [4]			**3,10**	**3,10**	**3,30**	**3,20**
$\eta_{s,hMT}$ [4]			**121,4**	**122,7**	**127,3**	**126,0**
Energy efficiency class ($SCOP_{MT}$) [4]			**A+**	**A+**	**A++**	**A++**
Sound power	Standard	dB(A)	82,7	84,1	85,1	85,8
Sound pressure at 10 m [5]	Standard	dB(A)	56,1	54,7	57,1	57,8

Physical features

ECOi-W AQUA-G BLUE 50-80 H EC fan - heat pump			50	60	70	80
Dimension	Height	mm	1730	2011	2030	2030
	Length w/o / w water tank		2215 / 2215 [6]	2180 / 2680	2180 / 2680	2180 / 2680
	Width		1032	1160	1160	1160
Refrigerant and compressors						
Number of refrigerant circuits			1	1	1	1
Refrigerant (R290)		kg	4,50	4,80	5,30	6,80
GWP		CO_2 eq.	3 (100 years)	3 (100 years)	3 (100 years)	3 (100 years)
Compressors	Number / type		2 / Scroll	2 / Scroll	2 / Scroll	2 / Scroll
Capacity steps		%	50 / 100	40 / 60 / 100	40 / 60 / 100	50 / 100
Water connections						
Type of water connections			Male gas threaded	Male gas threaded	Male gas threaded	Male gas threaded
Water inlet/outlet diameter		Inch	1 ¼	2	2	2 ½
Buffer tank (option)						
Volume		l	200	300	300	300

1) According EN14511-2013: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 2) According EN14825 and following COMMISSION REGULATION (EU) 2016/2281. 3) According EN14511-2013: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 4) According to EN14825 and following COMMISSION REGULATION (EU) No 813/2013. 5) Sound pressures refer to ISO 3744 standard, parallelepiped shape. 6) Tank is external to the unit chassis. Its width must be added.

Accessories and options
Anti-vibration rubber mount / spring dampers
Refrigerant gauges HP/LP
Shut off valves
Sofstarter
Energy meter for input power

Accessories and options
Electrical heater for the water tank
Variable or fixed speed pumps
Water tank 200 l (size 50)
Water tank 300 l (sizes 60-70-80)

R290 | HIGH SEER 4,33 | HIGH SCOP 3,54 | AIR COOLED | PLATE HEAT EXCHANGER | SCROLL COMPRESSOR

ECOi-W AQUA 20-40 C/H/E · R410A

Air cooled chillers, heat pumps and condensing units.

Cooling capacity: 19,3 to 40,9 kW.
Heating capacity: 19,5 to 41,6 kW.

The range at a glance

- 3 versions: C (cooling only), H (heat pump) and E (condensing unit)
- SEER up to 4,59
- SCOP up to 3,40
- 5 sizes (4 sizes for E type)
- 2 configurations: STD (standard) and HPF (high pressure fan)

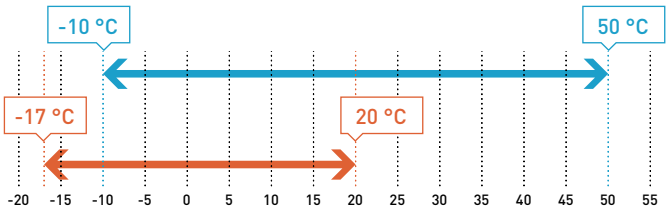
Advantages

- Very high performance
- Low noise units
- Wide operating limits
- Easy maintenance: great accessibility to the internal components
- Low footprint
- Smart defrost technology: 1 defrost every 130 minutes for a constant LWT even at very low OAT (H type)
- Optimised for partial load operation
- 100% factory tested

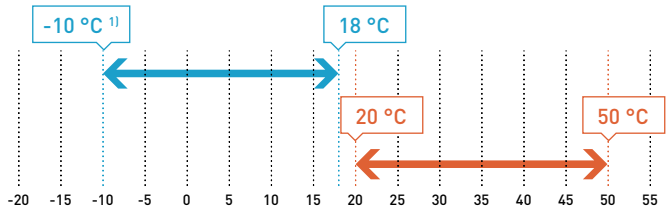
Operating limits

To be confirmed with AC SELECT:
https://acselect.panasonic.eu/

Ambient temperature (cooling only, heat pump and condensing unit).



Leaving water temperature (cooling only and heat pump).



1) With glycol, 5 °C without glycol.

Equipment

- 1 refrigerant circuit with tandem scroll compressors for a higher efficiency at partial load
- Stainless steel plate heat exchanger insulated with closed cell synthetic foam (C/H types)
- Finned coil condenser constructed with seamless copper tubes mechanically expanded into aluminium fins - Bluefin treatment for H type
- Hydraulic circuit without pump (C type) / without or with a fixed speed pump (H type)
- Super low noise units: Acoustic box around the compressors
- Complete integrated control system with an external control panel that displays operating parameters and alarms
- Modbus RTU communication protocol as standard
- Night mode for energy savings and reduced sound levels
- Double water set point (H type)
- Water compensation curve control (C/H types)
- Return and leaving water temperature control (C/H types)
- Water filter and water flow switch (C/H types)
- Phase sequence monitor
- Suction and liquid line shut-off valves + a suction receiver (E type)

AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical performance

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
Size			**20**	**25**	**30**	**35**	**40**
ECOi-W AQUA 20-40 C - cooling only			**P-AQAE0020CA**	**P-AQAE0025CA**	**P-AQAE0030CA**	**P-AQAE0035CA**	**P-AQAE0040CA**
Cooling capacity [1]		kW	19,2	24,3	27,1	36,7	39,0
Input power [1]		kW	5,9	7,7	9,3	12,2	13,0
EER [1]			3,25	3,17	2,9	3,01	3,0
SEER [2] [3]			**4,78**	**4,38**	**4,43**	**4,43**	**4,48**
$\eta_{s,c}$ [2] [3]			**188**	**172**	**174**	**174**	**176**
Nominal water flow (in the evaporator)		m^3/h	3,3	4,2	4,7	6,3	6,7
Sound power (STD fan)		dB(A)	75	76	76	77	77
Sound pressure at 10 m (STD fan) [4]		dB(A)	42,8	43,8	43,8	44,8	44,8
ECOi-W AQUA 20-40 H - heat pump			**P-AQAE0020HA**	**P-AQAE0025HA**	**P-AQAE0030HA**	**P-AQAE0035HA**	**P-AQAE0040HA**
Cooling capacity [1]		kW	18,7	23,7	26,4	35,8	38,1
Input power [1]		kW	5,9	7,7	9,4	12,3	13,1
EER [1]			3,15	3,07	2,81	2,92	2,92
SEER [2]			**4,68**	**4,31**	**4,28**	**4,25**	**4,33**
$\eta_{s,c}$ [2]			**184**	**169**	**168**	**167**	**170**
Nominal water flow (in the evaporator)		m^3/h	3,3	4,3	4,6	6,2	6,4
Heating capacity [5]		kW	19,5	26,9	29,7	37,3	41,6
Input power [5]		kW	6,1	9,3	9,9	13,2	13,5
COP [5]			3,19	2,90	2,99	2,82	3,08
COP [6]			4,17	4,10	4,10	4,11	3,86
SCOP [2] [7]			**3,50**	**3,38**	**3,45**	**3,50**	**3,50**
Energy efficiency class [2] [7]			**A+**	**A+**	**A+**	**A+**	**A+**
$\eta_{s,h}$ [2] [7]			**137**	**132**	**135**	**137**	**137**
Nominal water flow (in the evaporator)		m^3/h	3,4	4,7	5,2	6,5	7,2
Sound power (STD fan)		dB(A)	75	76	76	77	77
Sound pressure at 10 m (STD fan) [4]		dB(A)	42,8	43,8	43,8	44,8	44,8
ECOi-W AQUA 25-40 E - condensing unit			**—**	**P-AQAE0025EA**	**P-AQAE0030EA**	**P-AQAE0035EA**	**P-AQAE0040EA**
Cooling capacity [8]		kW	—	32,4	33,7	43,1	44,8
Input power [8]		kW	—	10,0	10,7	14,9	15,0
EER [8]			—	3,24	3,15	2,90	2,99
Sound power		dB(A)	—	75	75	76	76

Physical features

ECOi-W AQUA 20-40 C/H - cooling only / heat pump			**20**	**25**	**30**	**35**	**40**
Dimension	Height (STD / HPF)	mm	1983 / 2025	1983 / 2025	1983 / 2025	1983 / 2025	1983 / 2025
	Width w/o / w water tank	mm	1000 / 1507	1000 / 1507	1000 / 1507	1000 / 1507	1000 / 1507
	Length	mm	1000	1000	1000	1000	1000
Operating weight without / with water tank - 1 pump		kg	285 / 450	295 / 460	325 / 490	335 / 500	335 / 500
Water connections							
Type of water connections (evaporator)			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
Water inlet/outlet diameter		Inch	1 ½	1 ½	1 ½	1 ½	1 ½
ECOi-W AQUA 25-40 E - condensing unit			**—**	**25**	**30**	**35**	**40**
Dimension	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
Operating weight		kg	—	260	270	280	280
Refrigerant connections							
Liquid line		Inch	—	⅝	⅝	⅝	⅝
Suction line		Inch	—	1 ⅛	1 ⅛	1 ⅛	1 ⅛

1) According EN14511-2013: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 2) According EN14825. 3) ErP compliant: following COMMISSION REGULATION (EU) 2016/2281. 4) Sound pressures refer to ISO 3744 standard, parallelepiped shape. 5) According EN14511-2013: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 6) According EN14511-2013: warm water inlet/outlet temperature: 30/35 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 7) ErP compliant: following COMMISSION REGULATION (EU) No 813/2013. 8) Data refers to 7 °C leaving chilled water temperature and 35 °C condenser air temperature, according EN14511-2013 standard.
* w/o: without, w: with.

Accessories and options
Anti-vibration rubber mount / spring dampers
BACnet IP or BACnet MSTP
Desuperheater
Fan speed control
Finned coil blygold treatment (upon request) or epoxy
High pressure fan (HPF)

Accessories and options
Modbus TCP/IP
Outdoor coil protection grid
Nordic pack (H type only)
Remote control
Shut off valves
Soft starter

Accessories and options
SRC - mini BMS controller
Variable or fixed* speed pumps
Water pressure switch
Water tank 100 l
Without neutral (upon request)

* Not available with ECOi-W AQUA C and ECOi-W AQUA H 20-30 due to Ecodesign compliance.

ErP | HIGH SEER 4,59 | HIGH SCOP 3,40 | AIR COOLED | PLATE HEAT EXCHANGER | SCROLL COMPRESSOR | SUPER QUIET | VERY HIGH PERFORMANCE

Specifications subject to change without notice. For detailed information about ErP / Energy Labelling, please visit our websites www.aircon.panasonic.eu or www.ptc.panasonic.eu.

ECOi-W AQUA 45-125 C/H/E · R410A

Air cooled chillers, heat pumps and condensing units.

Cooling capacity: 46,8 to 129,8 kW.
Heating capacity: 48,5 to 119,1 kW.

The range at a glance

- 3 versions: C (cooling only), H (heat pump) and E (condensing unit)
- 7 sizes
- SEER up to 4,41
- SCOP up to 3,43
- 2 configurations: STD (standard) and HPF (high pressure fan)
- 2 acoustic options: STD (standard) and S (super low noise)

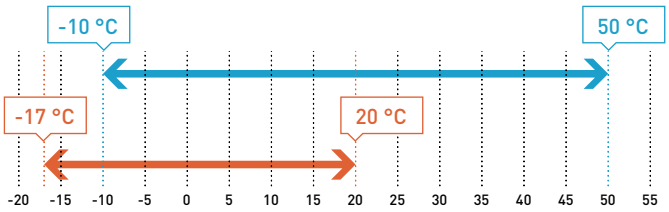
Advantages

- Very high performance
- Low noise units
- Wide operating limits
- Easy maintenance: great accessibility to the internal components
- Low footprint
- Smart defrost technology: 1 defrost every 130 minutes for a constant LWT even at very low OAT (H type)
- Optimised for partial load operation
- 100% factory tested

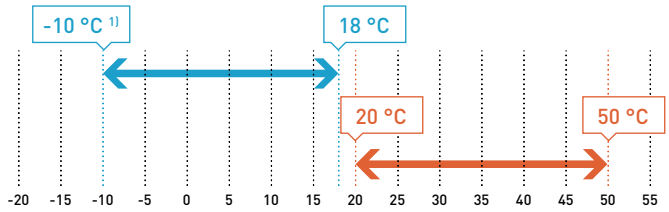
Operating limits

To be confirmed with AC SELECT:
https://acselect.panasonic.eu/

Ambient temperature (cooling only, heat pump and condensing unit).



Leaving water temperature (cooling only and heat pump).



1) With glycol, 5 °C without glycol.

Equipment

- 1 refrigerant circuit with tandem scroll compressors for a higher efficiency at partial load
- Stainless steel plate heat exchanger insulated with closed cell synthetic foam (C/H types)
- Finned coil condenser constructed with seamless copper tubes mechanically expanded into aluminium fins - Bluefin treatment for H type
- Hydraulic circuit without pump
- Complete integrated control system with an external control panel that displays the operating parameters and alarms
- Modbus RTU communication protocol as standard
- Night mode for energy savings and reduced sound levels
- Double water set point (H type)
- Water compensation curve control (C/H types)
- Return and leaving water temperature control (C/H types)
- Water filter and water flow switch (C/H types)
- Phase sequence monitor
- Suction and liquid line shut-off valves + a suction receiver (E type)

AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical performance

Power supply	Voltage	V	400	400	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50	50
Size			**45**	**55**	**65**	**75**	**90**	**105**	**125**
ECOi-W AQUA 45-125 C - cooling only			**P-AQAE0045CA**	**P-AQAE0055CA**	**P-AQAE0065CA**	**P-AQAE0075CA**	**P-AQAE0090CA**	**P-AQAE0105CA**	**P-AQAE0125CA**
Cooling capacity [1]		kW	45,3	52,0	66,1	73,1	90,9	104,0	123,0
Input power [1]		kW	15,4	17,6	21,7	24,0	30,7	34,9	40,6
EER [1]			2,95	2,96	3,05	3,05	2,96	2,98	3,03
SEER [2] [3]			**4,40**	**4,53**	**4,53**	**4,68**	**4,45**	**4,50**	**4,55**
$\eta_{s,c}$ [2] [3]			**173**	**178**	**178**	**184**	**175**	**177**	**179**
Nominal water flow (in the evaporator)		m^3/h	7,8	8,9	11,4	12,6	15,6	17,9	21,2
Sound power (STD fan)		dB(A)	81	81	81	81	84	84	84
Sound pressure at 10 m (STD fan) [4]		dB(A)	48,8	48,8	48,8	48,8	51,8	51,8	51,8
ECOi-W AQUA 45-125 H - heat pump			**P-AQAE0045HA**	**P-AQAE0055HA**	**P-AQAE0065HA**	**P-AQAE0075HA**	**P-AQAE0090HA**	**P-AQAE0105HA**	**P-AQAE0125HA**
Cooling capacity [1]		kW	44,3	50,9	64,1	71,0	88,7	101,0	119,0
Input power [1]		kW	15,9	18,0	21,8	24,0	30,6	34,8	40,4
EER [1]			2,78	2,83	2,94	2,95	2,90	2,90	2,96
SEER [2]			**4,20**	**4,41**	**4,51**	**4,63**	**4,40**	**4,44**	**4,49**
$\eta_{s,c}$ [2]			**165**	**174**	**177**	**182**	**173**	**175**	**177**
Nominal water flow (in the evaporator)		m^3/h	8,0	9,2	11,3	12,3	15,7	18,2	20,9
Heating capacity [5]		kW	48,5	58,2	67,3	76,0	88,2	101,0	119,0
Input power [5]		kW	17,3	20,4	22,5	24,3	33,8	38,4	45,5
COP [5]			2,80	2,86	2,99	3,12	2,61	2,63	2,62
COP [6]			3,89	3,83	3,80	3,82	3,80	3,80	3,82
SCOP [2] [7]			**3,38**	**3,38**	**3,55**	**3,53**	**3,40**	**3,43**	**3,43**
Energy efficiency class [2] [7]			**A+**	**A+**	**A+**	**A+**	**—**	**—**	**—**
$\eta_{s,h}$ [2] [7]			**132**	**132**	**139**	**138**	**133**	**134**	**134**
Nominal water flow (in the evaporator)		m^3/h	8,4	10,2	11,7	13,2	15,3	17,6	20,7
Sound power (STD fan)		dB(A)	81	81	81	81	84	84	84
Sound pressure at 10 m (STD fan) [4]		dB(A)	48,8	48,8	48,8	48,8	51,8	51,8	51,8
ECOi-W AQUA 45-125 E - condensing unit			**P-AQAE0045EA**	**P-AQAE0055EA**	**P-AQAE0065EA**	**P-AQAE0075EA**	**P-AQAE0090EA**	**P-AQAE0105EA**	**P-AQAE0125EA**
Cooling capacity [8]		kW	57,4	64,5	72,4	79,3	104,0	120,0	136,0
Input power [8]		kW	19,5	22,3	24,4	27,2	39,3	43,0	51,3
EER [8]			2,94	2,89	2,97	2,91	2,65	2,79	2,66
Sound power		dB(A)	80	80	80	80	83	83	83

Physical features

ECOi-W AQUA 45-125 C/H - cooling only / heat pump			**45**	**55**	**65**	**75**	**90**	**105**	**125**
Dimension	Height (STD / HPF)	mm	1986 / 2025	1986 / 2025	1986 / 2026	1986 / 2026	2286 / 2379	2286 / 2379	2286 / 2379
	Width	mm	1160	1160	1160	1160	1160	1160	1160
	Length w/o / w water tank	mm	2180 / 2680	2180 / 2680	2180 / 2680	2180 / 2680	2180 / 2680	2180 / 2680	2180 / 2680
Operating weight w/o / w water tank - 1 pump		kg	545 / 1010	545 / 1010	615 / 1080	615 / 1080	795 / 1260	905 / 1370	925 / 1390
Water connections									
Type of water connections (evaporator)			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	Male gas threaded BSPP ISO 228	Male gas threaded BSPP ISO 228
Water inlet/outlet diameter		Inch	2	2	2	2	2½	2½	2½
ECOi-W AQUA 45-125 E - condensing unit			**45**	**55**	**65**	**75**	**90**	**105**	**125**
Operating weight		kg	490	490	560	560	740	850	870
Dimension	H x W x D	mm	1986 x 1160 x 2180	1986 x 1160 x 2180	1986 x 1160 x 2180	1986 x 1160 x 2180	2286 x 1160 x 2180	2286 x 1160 x 2180	2286 x 1160 x 2180
Refrigerant connections									
Liquid line		Inch	⅝	⅝	⅝	⅝	⅞	⅞	⅞
Suction line		Inch	1 ⅛	1 ⅛	1 ⅛	1 ⅛	1 ⅛	1 ⅛	1 ⅛

1) According EN14511-2013: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 2) According EN14825. 3) ErP compliant: following COMMISSION REGULATION (EU) 2016/2281. 4) Sound pressures refer to ISO 3744 standard, parallelepiped shape. 5) According EN14511-2013: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 6) According EN14511-2013: warm water inlet/outlet temperature: 30/35 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 7) ErP compliant: following COMMISSION REGULATION (EU) No 813/2013. 8) Data refers to 7 °C leaving chilled water temperature and 35 °C condenser air temperature, according EN14511-2013 standard.
* w/o: without, w: with.

Accessories and options
Anti-vibration rubber mount / spring dampers
BACnet IP or BACnet MSTP
Desuperheater
Fan speed control
Finned coil blygold treatment (upon request) or epoxy
Electrical heater high or low power (H type only)

Accessories and options
Super low noise (S): acoustic box around the compressors
High pressure fan (HPF)
Modbus TCP/IP
Outdoor coil protection grid
Refrigerant gauges HP/LP
Remote control

Accessories and options
Shut off valves
Soft starter
SRC - mini BMS controller
Variable or fixed* speed pumps
Water tank 300 l
Without neutral (upon request)
Water pressure switch

* Not available with ECOi-W AQUA C units due to Ecodesign compliance.

ErP | HIGH SEER 4,41 | HIGH SCOP 3,43 | AIR COOLED | PLATE HEAT EXCHANGER | SCROLL COMPRESSOR | SUPER QUIET | VERY HIGH PERFORMANCE

Specifications subject to change without notice. For detailed information about ErP / Energy Labelling, please visit our websites www.aircon.panasonic.eu or www.ptc.panasonic.eu.

ECOi-W AQUA 140-210 C/H · R410A

Air cooled chillers and heat pumps.

Cooling capacity: 125,4 to 208,8 kW.
Heating capacity: 143,7 to 217,6 kW.

The range at a glance

- 2 versions: C (cooling only) and H (heat pump)
- 5 sizes
- SEER up to 4,40
- SCOP up to 3,36

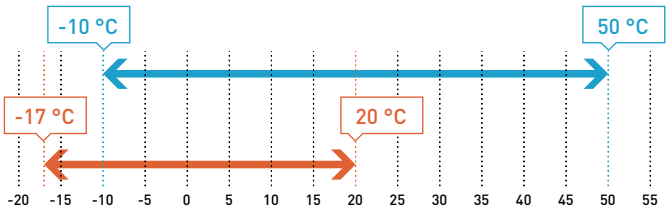
Advantages

- Very high performances
- Low noise units
- Wide operating limits
- Easy maintenance: great accessibility to the internal components
- Low footprint
- Patented antifrost coil
- Smart defrost technology: 1 defrost every 130 minutes for a constant LWT even at very low OAT (H type)
- Optimised for partial load operation
- 100% factory tested

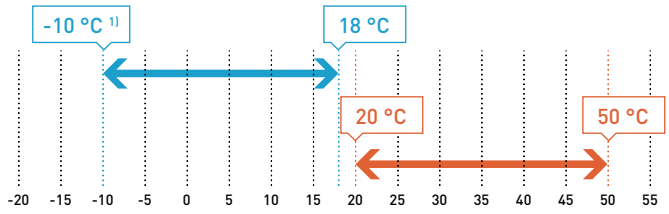
Operating limits

To be confirmed with AC SELECT:
https://acselect.panasonic.eu/

Ambient temperature (cooling only, heat pump and condensing unit).



Leaving water temperature (cooling only and heat pump).



1) With glycol, 5 °C without glycol.

Equipment

- 2 refrigerant circuits, each equipped with tandem scroll compressors for a higher efficiency at partial load
- Stainless steel plate heat exchanger insulated with closed cell synthetic foam
- Finned coil condenser constructed with seamless copper tubes mechanically expanded into aluminium fins - Bluefin treatment for H type
- Hydraulic circuit without pump
- Complete integrated control system with an external control panel that displays the operating parameters and alarms
- Modbus RTU communication protocol as standard
- Super low noise units: acoustic box around the compressors
- Patented antifrost coil (H type)
- Night mode for energy savings and reduced sound levels
- Double water set point (H type)
- Water compensation curve control
- Return and leaving water temperature control
- Water filter and water flow switch
- Phase sequence monitor

AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical performance

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
Size			**140**	**150**	**170**	**190**	**210**
ECOi-W AQUA 140-210 C - cooling only			**P-AQAE0140CA**	**P-AQAE0150CA**	**P-AQAE0170CA**	**P-AQAE0190CA**	**P-AQAE0210CA**
Cooling capacity [1]		kW	132	146	164	181	208
Input power [1]		kW	43,1	47,6	54,8	61,1	69,8
EER [1]			3,06	3,07	2,99	2,96	2,98
SEER [2] [3]			**4,40**	**4,45**	**4,38**	**4,40**	**4,25**
$\eta_{s,c}$ [2] [3]			**173**	**175**	**172**	**173**	**167**
Nominal water flow (in the evaporator)		m³/h	22,7	25,1	28,2	31,1	35,8
Sound power (STD fan)		dB(A)	85	85	87	88	88
Sound pressure at 10 m (STD fan) [4]		dB(A)	53,4	53,4	55,0	56,1	56,1
ECOi-W AQUA 140-210 H - heat pump			**P-AQAE0140HA**	**P-AQAE0150HA**	**P-AQAE0170HA**	**P-AQAE0190HA**	**P-AQAE 0210HA**
Cooling capacity [1]		kW	128	142	164	178	208
Input power [1]		kW	43,2	47,7	54,7	61,3	69,7
EER [1]			2,97	2,98	3,00	2,90	2,98
SEER [2]			**4,39**	**4,36**	**4,31**	**4,23**	**4,28**
$\eta_{s,c}$ [2]			**173**	**171**	**169**	**166**	**168**
Nominal water flow (in the evaporator)		m³/h	21,6	23,7	25,9	30,2	33,7
Heating capacity [5]		kW	144	154	170	195	218
Input power [5]		kW	45,8	50,2	55,4	67,5	78,3
COP [5]			3,14	3,06	3,07	2,89	2,78
COP [6]			3,84	3,82	3,81	3,82	3,82
SCOP [2] [7]			**3,30**	**3,33**	**3,30**	**3,28**	**3,23**
$\eta_{s,h}$ [2] [7]			**129**	**130**	**129**	**128**	**126**
Nominal water flow (in the evaporator)		m³/h	24,8	26,5	29,6	33,9	37,9
Sound power		dB(A)	85	85	87	88	88
Sound pressure at 10 m (STD fan) [4]		dB(A)	53,4	53,4	55	56,1	56,1

Physical features

ECOi-W AQUA 140-210 C/H - cooling only / heat pump			**140**	**150**	**170**	**190**	**210**
Dimension	Height	mm	2295	2295	2321	2321	2321
	Width	mm	2210	2210	2210	2210	2210
	Length w/o / w water tank	mm	2856 / 3666	2856 / 3666	2856 / 3666	2856 / 3666	2856 / 3666
Operating weight w/o / w water tank - 1 pump		kg	1685 / 2139	1705 / 2159	1798 / 2253	1891 / 2343	2201 / 2653
Water connections							
Type of water connections (evaporator)			Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Water inlet/outlet diameter		Inch	2 ½	2 ½	2 ½	2 ½	2 ½

1) According EN14511-2013: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 2) According EN14825. 3) ErP compliant: following COMMISSION REGULATION (EU) 2016/2281. 4) Sound pressures refer to ISO 3744 standard, parallelepiped shape. 5) According EN14511-2013: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 6) According EN14511-2013: warm water inlet/outlet temperature: 30/35 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 7) ErP compliant: following COMMISSION REGULATION (EU) No 813/2013.
* w/o: without, w: with.

Accessories and options
Anti-vibration rubber mount / spring dampers
BACnet IP and BACnet MSTP
Desuperheater
Fan speed control
Finned coil blygold treatment (upon request) and epoxy
Hydraulic gauges

Accessories and options
Modbus TCP/IP
Outdoor coil protection grid
Nordic pack (H type only)
Refrigerant gauges HP/LP
Remote control
Shut off valves
Soft starter

Accessories and options
SRC - mini BMS controller
Variable or fixed* speed pumps
Water tank 300 l
Without neutral
Water pressure switch

* ECOi-W AQUA C units can't be Ecodesign compliant with this option.

ErP | HIGH SEER 4,40 | HIGH SCOP 3,36 | AIR COOLED | PLATE HEAT EXCHANGER | SCROLL COMPRESSOR | SUPER QUIET | VERY HIGH PERFORMANCE

Specifications subject to change without notice. For detailed information about ErP / Energy Labelling, please visit our websites www.aircon.panasonic.eu or www.ptc.panasonic.eu.

ECOi-W AQUA-Z 50-130 C/H · R32

Air cooled chillers and heat pumps.

Cooling capacity: 51,6 to 126 kW.
Heating capacity: 56,0 to 139,0 kW.

R32 REFRIGERANT

The range at a glance

- 2 versions: C (cooling only) and H (heat pump)
- 8 sizes
- SEER up to 4,88 (STD AC) / 5,31 (STD EC)
- SCOP up to 3,81 (STD AC) / 4,19 (STD EC)
- 2 configurations: STD (standard) and HPF (high pressure fan)
- 2 fan types: AC (standard fan) and EC (high efficiency fan)
- 2 acoustic options: STD (standard) and S (super low noise)

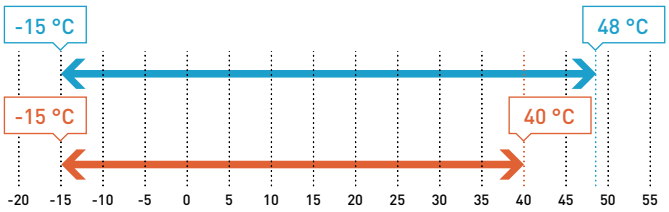
Advantages

- Sustainable units: R32 refrigerant (GWP= 675)
- Very high efficiency
- Wide operating limits
- Low footprint: only 2,53 m²
- Reduced sound levels: S version (super low noise) with EC fan and compressor sound jackets
- New advanced control system
- Easy maintenance: great accessibility to the internal components
- Cascade controller available for multi-system operation
- SG ready
- 100% factory tested

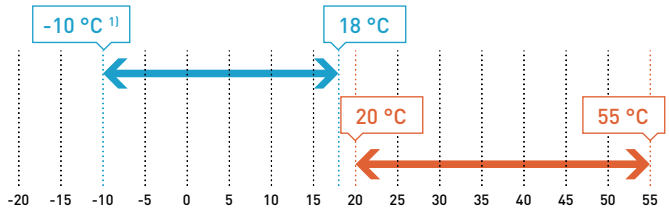
Operating limits

To be confirmed with AC SELECT:
https://acselect.panasonic.eu/

Ambient temperature.



Leaving water temperature.



1) With glycol, 5 °C without glycol.

Equipment

- 1 refrigerant circuit with tandem scroll compressors for a higher efficiency at partial load
- Stainless steel plate heat exchanger insulated with closed cell synthetic foam
- Finned coil condenser constructed with seamless copper tubes mechanically expanded into aluminium fins - Bluefin treatment for H type
- Hydraulic circuit without pump
- Complete integrated control system with an external control panel that displays the operating parameters and alarms
- Modbus RTU, Modbus TCP/IP, BACnet MSTP or BACnet IP
- Night mode for energy savings and reduced sound levels
- Electronic expansion valve
- Water compensation curve control
- Return and leaving water temperature control
- External switch (cooling/heating, night mode, load shedding)
- Water filter and water flow switch
- Phase sequence monitor

AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical performance

Power supply	Voltage	V	400	400	400	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50	50	50
Size			**50**	**60**	**70**	**75**	**85**	**100**	**115**	**130**
ECOi-W AQUA-Z 50-130 C - cooling only		**P-**	**AQAZ0050CA**	**AQAZ0060CA**	**AQAZ0070CA**	**AQAZ0075CA**	**AQAZ0085CA**	**AQAZ0100CA**	**AQAZ0115CA**	**AQAZ0130CA**
Cooling capacity [1]		kW	51,6	57,6	69,7	78,2	82,8	100	116	126
Input power [1]		kW	16,5	19,6	22,4	24	26,8	31,4	37,4	42,3
EER (STD AC / STD EC) *[1]			3,13 / 3,25	2,94 / 3,03	3,11 / 3,29	3,26 / 3,41	3,09 / 3,23	3,18 / 3,30	3,10 / 3,20	2,98 / 3,07
SEER (STD AC / STD EC) *[2] [3]			**4,60 / 5,05**	**4,59 / 5,02**	**4,61 / 5,31**	**4,72 / 5,29**	**4,45 / 4,96**	**4,88 / 5,19**	**4,59 / 5,01**	**4,43 / 4,71**
$\eta_{s,c}$ (STD AC / STD EC) *[2] [3]			**180,9 / 198,9**	**180,5 / 197,8**	**181,3 / 209,6**	**185,6 / 208,7**	**175,0 / 195,6**	**192,3 / 204,9**	**180,5 / 197,3**	**174,2 / 185,6**
Nominal water flow (in the evaporator)		m^3/h	9,2	10,6	12,2	13,2	14,7	17,9	21,1	23,5
Sound power (STD AC / S)*		dB(A)	83 / 81	84 / 81	81 / 78	81 / 78	84 / 82	86 / 83	87 / 84	87 / 84
Sound pressure at 10 m (STD AC / S) *[4]		dB(A)	51 / 49	52 / 49	50 / 47	49 / 46	52 / 50	54 / 51	55 / 52	55 / 53
ECOi-W AQUA-Z 50-130 H - heat pump			**AQAZ0050HA**	**AQAZ0060HA**	**AQAZ0070HA**	**AQAZ0075HA**	**AQAZ0085HA**	**AQAZ0100HA**	**AQAZ0115HA**	**AQAZ0130HA**
Cooling capacity [1]			51,1	57	69	77,4	82	99,3	115	125
Input power [1]			16,7	19,8	22,6	24,3	27,1	31,8	37,7	42,7
EER (STD AC / STD EC) *[1]			3,06 / 3,17	2,88 / 2,97	3,05 / 3,22	3,19 / 3,35	3,03 / 3,17	3,12 / 3,25	3,05 / 3,14	2,93 / 3,00
EER (STD AC / STD EC) *[5]			3,53 / 3,67	3,40 / 3,50	3,57 / 3,64	3,78 / 3,96	3,52 / 3,66	3,63 / 3,76	3,51 / 3,54	3,39 / 3,50
SEER (STD AC / STD EC) *[2]			**4,46 / 4,83**	**4,42 / 4,50**	**4,51 / 5,04**	**4,61 / 4,99**	**4,33 / 4,80**	**4,77 / 4,93**	**4,44 / 4,82**	**4,23 / 4,51**
ns,c (STD AC / STD EC) *[2]			**175,2 / 190,2**	**173,6 / 176,9**	**177,5 / 198,8**	**181,5 / 196,7**	**170,3 / 188,9**	**187,7 / 194,1**	**174,6 / 190,0**	**166 / 177,2**
Nominal water flow (in the evaporator)		m^3/h	8,7	10,6	12,2	13,2	14,7	17,9	21,1	23,5
Heating capacity [6]		kW	56,0	63,0	75,1	83,6	90,7	110,0	125,0	139,0
Input power [6]		kW	16,8	19,3	23,4	25,9	27,7	32,8	37,2	41,1
COP (STD AC / STD EC) *[6]			3,33 / 3,48	3,26 / 3,37	3,21 / 3,40	3,23 / 3,40	3,27 / 3,44	3,35 / 3,49	3,36 / 3,48	3,38 / 3,50
COP (STD AC / STD EC) *[7]			4,08 / 4,29	3,98 / 4,16	3,88 / 4,16	3,89 / 4,15	4,03 / 4,34	4,04 / 4,24	4,15 / 4,33	4,08 / 4,25
SCOP (STD AC / STD EC) *[2] [8]			**3,63 /3,81**	**3,51 / 3,67**	**3,49 / 4,04**	**3,56 / 3,87**	**3,76 / 4,19**	**3,56 / 3,72**	**3,77 / 4,13**	**3,81 / 4,12**
Energy efficiency class (STD AC / STD EC) *[2] [7]			**A+ / A+**	**A+ / A+**	**A+ / A++**	**A+ / A++**	**A+ / A++**	**- / -**	**- / -**	**- / -**
ns,h (STD AC / STD EC) *[2] [7]			**142,4 / 149,4**	**137,7 / 143,5**	**136,5 / 158,5**	**139,3 / 154,8**	**147,4 / 164,7**	**139,1 / 145,7**	**147,7 / 162,3**	**149,5 / 161,9**
Nominal water flow (in the evaporator)		m^3/h	9,3	10,7	12,5	13,9	15,0	18,3	21,5	23,9
Sound power (STD AC / S)*		dB(A)	83 / 81	84 / 81	81 / 78	81 / 78	84 / 82	86 / 83	87 / 84	87 / 84
Sound pressure at 10 m (STD AC / S) *[4]		dB(A)	51 / 49	52 / 49	50 / 47	50 / 46	52 / 50	54 / 51	55 / 52	56 / 53

Physical features

ECOi-W AQUA-Z 50-130 C/H - cooling only / heat pump			**50**	**60**	**70**	**75**	**85**	**100**	**115**	**130**
Dimension	Height (STD / EC/HPF)	mm	1986 / 2034	1986 / 2034	1986 / 2034	1986 / 2034	2286 / 2334	2286 / 2334	2286 / 2334	2286 / 2334
	Width	mm	1160	1160	1160	1160	1160	1160	1160	1160
	Length without water tank	mm	2180	2180	2180	2180	2180	2180	2180	2180
Operating weight without water tank - 1 pump		kg	527	547	621	637	701	731	813	815
Water connections										
Type of water connections (evaporator)			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	Male gas threaded BSPP ISO 228	Male gas threaded BSPP ISO 228	Male gas threaded BSPP ISO 228
Water inlet/outlet diameter		Inch	2	2	2	2	2 ½	2 ½	2 ½	2 ½

1) According EN14511-2018: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 2) According EN14825. 3) ErP compliant: following COMMISSION REGULATION (EU) 2016/2281. 4) Sound pressures refer to ISO 3744 standard, parallelepiped shape. 5) According EN14511-2018: chilled water inlet/outlet temperature: 23/18 °C, outdoor ambient temperature 35 °C DB. 6) According EN14511-2018: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 7) According EN14511-2018: warm water inlet/outlet temperature: 30/35 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 8) ErP compliant: following COMMISSION REGULATION (EU) No 813/2013.
* STD AC: standard version with AC fan, STD EC: standard version with high efficiency EC fan, S: super low noise version with high efficiency EC fan + compressor sound jackets.

Accessories and options
Additional external switch (cooling/heating) (H type only)
Anti-vibration rubber mount / spring dampers
Compressor jackets (standard for S versions)
Contact for external general alarm
Desuperheater
Electrical heater for the water tank (H type only)
Energy meter for Input power

Accessories and options
High efficiency EC fan
High pressure fan (HPF)
Outdoor coil protection grid
Power factor corrector capacitors
Refrigerant gauges HP/LP
Remote control kit
Shut off valves
Sofstarter

Accessories and options
SRC - mini BMS controller
Super low noise (S): EC fan + compressor jackets
Variable or fixed speed pumps
Water pressure switch
Water tank 300 l
Without neutral

R32 | ErP | HIGH SEER 5.10 | HIGH SCOP 4.00 | AIR COOLED | PLATE HEAT EXCHANGER | SCROLL COMPRESSOR | SUPER QUIET | VERY HIGH PERFORMANCE

Specifications subject to change without notice. For detailed information about ErP / Energy Labelling, please visit our websites www.aircon.panasonic.eu or www.ptc.panasonic.eu.

ECOi-W AQUA-Z 150-170 C/H · R32

Air cooled chillers and heat pumps.

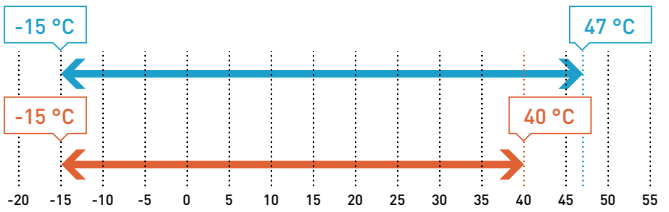
Cooling capacity: 154 to 173 kW.
Heating capacity: 163 to 187 kW.

R32 REFRIGERANT

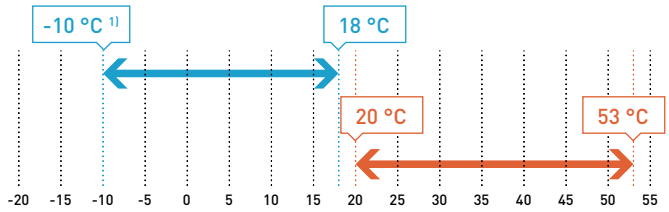
Operating limits

To be confirmed with AC SELECT:
https://acselect.panasonic.eu/

Ambient temperature.



Leaving water temperature.



1) With glycol, 5 °C without glycol.

The range at a glance

- 2 versions: C (cooling only), H (heat pump)
- 2 sizes
- SEER up to 4,70 (STD AC) / 5,22 (STD EC)
- SCOP up to 3,78 (STD AC) / 4,08 (STD EC)
- 2 configurations: STD (standard) and HPF (high pressure fan)
- 2 fan types: AC (standard fan) and EC (high efficiency fan)
- 2 acoustic options: STD (standard) and S (super low noise)

Advantages

- Sustainable units: R32 refrigerant (GWP = 675)
- Very high efficiency
- Wide operating limits
- Low footprint: one of the smallest footprint on the market with an average ratio of 37 kW/m².
- Reduced sound levels: S version (super low noise) with EC fan and compressor sound jackets
- New advanced control system
- Easy maintenance: great accessibility to the internal components
- Cascade controller available for multi-system operation
- SG ready
- 100% factory tested

Equipment

- 1 refrigerant circuit with tandem scroll compressors for a higher efficiency at partial load
- Stainless steel plate heat exchanger insulated with closed cell synthetic foam
- Finned coil condenser constructed with seamless copper tubes mechanically expanded into aluminium fins - Bluefin treatment for H type
- Hydraulic circuit without pump
- Complete integrated control system with an external control panel that displays the operating parameters and alarms
- Modbus RTU, Modbus TCP/IP, BACnet MSTP or BACnet IP
- Night mode for energy savings and reduced sound levels
- Electronic expansion valve
- Water compensation curve control
- Return and leaving water temperature control
- External switch (cooling/heating, night mode, load shedding)
- Water filter and water flow switch
- Phase sequence monitor
- Without neutral

AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical performance

Power supply	Voltage	V	400	400
	Phase		Three phase	Three phase
	Frequency	Hz	50	50
Size			**150**	**170**
ECOi-W AQUA-Z 150-170 C - cooling only		**P-**	**P-AQAZ0150CA**	**P-AQAZ0170CA**
Cooling capacity [1]		kW	154	173
Input power [1]		kW	47,4	55,7
EER (STD AC / STD EC) *[1]			3,25 / 3,38	3,11 / 3,20
SEER (STD AC / STD EC) *[2] [3]			**4,70 / 5,22**	**4,68 / 5,16**
$\eta_{s,c}$ (STD AC / STD EC) *[2] [3]			**184,8 / 205,6**	**184,2 / 203,2**
Nominal water flow (in the evaporator)		m^3/h	27,2	30,7
Sound power (STD AC / S)*		dB(A)	89 / 86	91 / 88
Sound pressure at 10 m (STD AC / S) *[4]		dB(A)	57 / 54	59 / 56
ECOi-W AQUA-Z 150-170 H - heat pump			**AQAZ0150HA**	**AQAZ0170HA**
Cooling capacity [1]			152	170
Input power [1]			47,9	57,1
EER (STD AC / STD EC) *[1]			3,17 / 3,30	2,98 / 3,07
EER (STD AC / STD EC) *[5]			3,63 / 3,76	3,39 / 3,56
SEER (STD AC / STD EC) *[2]			**4,59 / 5,04**	**4,49 / 4,92**
ns,c (STD AC / STD EC) *[2]			**180,5 / 198,7**	**176,6 / 193,8**
Nominal water flow (in the evaporator)		m^3/h	27,2	30,7
Heating capacity [6]		kW	163	187
Input power [6]		kW	48,4	55,4
COP (STD AC / STD EC) *[6]			3,37 / 3,52	3,38 / 3,50
COP (STD AC / STD EC) *[7]			4,15 / 4,36	4,10 / 4,29
SCOP (STD AC / STD EC) *[2] [8]			**3,78 / 4,08**	**3,70 / 4,03**
Energy efficiency class (STD AC / STD EC) *[2] [7]			**- / -**	**- / -**
ns,h (STD AC / STD EC) *[2] [7]			**148,3 / 160,2**	**145,1 / 158,3**
Nominal water flow (in the evaporator)		m^3/h	27,5	31,7
Sound power (STD AC / S)*		dB(A)	89 / 86	91 / 88
Sound pressure at 10 m (STD AC / S) *[4]		dB(A)	57 / 54	59 / 56

Physical features

ECOi-W AQUA-Z 150-170 C/H - cooling only / heat pump			**150**	**170**
Dimension	Height (STD / EC/HPF)	mm	2285 / 2333	2285 / 2333
	Width	mm	1151	1151
	Length without water tank	mm	3789	3789
Operating weight without water tank - 1 pump		kg	1265	1279
Water connections				
Type of water connections (evaporator)			Male gas threaded BSPP ISO 228	Male gas threaded BSPP ISO 228
Water inlet/outlet diameter		Inch	2 ½	2 ½

1) According EN14511-2018: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 2) According EN14825. 3) ErP compliant: following COMMISSION REGULATION (EU) 2016/2281. 4) Sound pressures refer to ISO 3744 standard, parallelepiped shape. 5) According EN14511-2018: chilled water inlet/outlet temperature: 23/18 °C, outdoor ambient temperature 35 °C DB. 6) According EN14511-2018: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 7) According EN14511-2018: warm water inlet/outlet temperature: 30/35 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 8) ErP compliant: following COMMISSION REGULATION (EU) No 813/2013.
* STD AC: standard version with AC fan, STD EC: standard version with high efficiency EC fan, S: super low noise version with high efficiency EC fan + compressor sound jackets.

Accessories and options
Additional external switch (cooling/heating) (H type only)
Anti-vibration rubber mount / spring dampers
Compressor jackets (standard for S versions)
Contact for external general alarm
Desuperheater
Electrical heater for the water tank (H type only)

Accessories and options
Energy meter for Input power
High efficiency EC fan
High pressure fan (HPF)
Outdoor coil protection grid
Power factor corrector capacitors
Refrigerant gauges HP/LP
Remote control kit

Accessories and options
Shut off valves
Sofstarter
SRC - mini BMS controller
Super low noise (S): EC fan + compressor jackets
Variable or fixed speed pumps
Water pressure switch
Water tank 300 l

R32 | ErP | HIGH SEER 5.00 | HIGH SCOP 3.90 | AIR COOLED | PLATE HEAT EXCHANGER | SCROLL COMPRESSOR | SUPER QUIET | VERY HIGH PERFORMANCE

ECOi-W AQV C/H/E · R410A

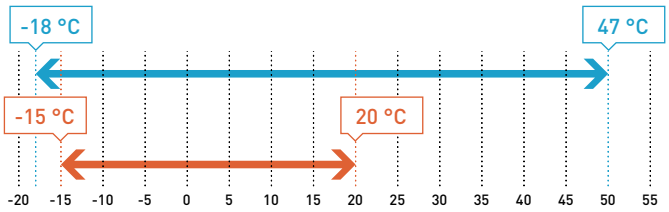
Air cooled chillers, heat pumps and condensing units.

Cooling capacity: 83,3 to 136,6 kW.
Heating capacity: 91,8 to 146,9 kW.

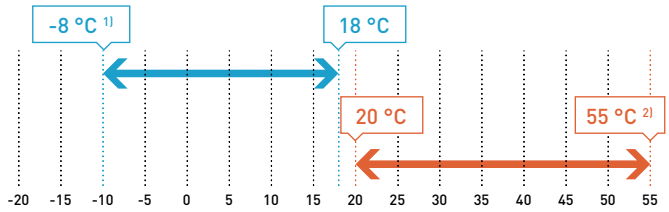
Operating limits

To be confirmed with AC SELECT:
https://acselect.panasonic.eu/

Ambient temperature (cooling only and heat pump).



Leaving water temperature (cooling only and heat pump).



1) With glycol, 5 °C without glycol.
2) Leaving water temperature maximum 55 °C (external air temperature minimum 6 °C) to be confirm with AC SELECT selection software.

ECOi-W AQV 85-140 C/H - cooling only / heat pump				
Cooling	Outdoor air temperature	S	°C	From -18 to 44
		HT	°C	From -18 to 50 (85-115)
				From -18 to 47 (125-140)
Heating	Outdoor air temperature	S	°C	From -4 to 20
		Polar Version	°C	From -15 to 20
External static pressure		STD / HPF	Pa	0 / <120
ECOi-W AQV 85-140 E - condensing unit				
Evaporating limit			°C	From 1 to 15
Outdoor air temperature		STD	°C	From 0 to 48
		S	°C	From -18 to 45
		HT	°C	From 0 to 50

The range at a glance

- 3 versions: C (cooling only), H (heat pump) and E (condensing unit)
- 6 sizes
- 3 configurations: STD (standard), HT (high temperature fan) and HPF (high pressure fan)
- 2 fan types: AC (standard fan) and EC (HSE model: high seasonal efficiency)
- 2 acoustic options: STD (standard) and S (super low noise)

Advantages

- High seasonal performances: SEER up to 4,9
- Common configuration for the different versions: easy upgrade of the units in stock or on field
- Electronic expansion device: excellent control of superheating for the best performance at full and partial load and for a safe operation
- Microchannel coils: significant reduction on refrigerant charge and operating weight (C type)
- Compressor box: remarkable sound reduction even for the basic noise version
- Control platform: modular architecture, compressor envelope integration, corrective actions in border line areas, easy-friendly user interface

Equipment

- 2 refrigerant circuits
- 4 scroll compressors (tandem)
- Plate evaporator (AISI 316)
- Microprocessor control
- Low operating water content in the plant
- Electronic expansion valve as standard
- Brine version for process application
- Polar version for extreme conditions
- E-coating coil treatment as standard
- Compressor acoustic box
- Compressor jackets (standard on S)
- Phase sequence control
- Water flow switch

Technical performance

Power supply	Voltage	V	400	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50
Size			**85**	**95**	**105**	**115**	**125**	**140**
ECOi-W AQV 85-140 C - cooling only			**P-AQVE0085CA**	**P-AQVE0095CA**	**P-AQVE0105CA**	**P-AQVE0115CA**	**P-AQVE0125CA**	**P-AQVE0140CA**
Cooling capacity [1]		kW	83,5	93,6	103,0	110,1	121,9	136,6
Input power [1]		kW	26,9	31,0	33,5	36,5	41,1	46,1
EER [1]			3,10	3,03	3,06	3,03	2,98	2,97
EER HSE [1]			3,19	3,10	3,13	3,09	3,05	3,04
SEER [2] [3]			**4,55**	**4,8**	**4,78**	**4,8**	**4,73**	**4,53**
$\eta_{s,c}$ [2] [3]			**179**	**189**	**188**	**189**	**186**	**178**
SEER HSE [2] [3]			**4,73**	**4,75**	**4,95**	**4,95**	**4,78**	**4,6**
$\eta_{s,c}$ HSE [2] [3]			**186**	**187**	**195**	**195**	**188**	**181**
Nominal water flow (in the evaporator)		m^3/h	14,3	16,1	17,6	19,0	21,0	23,5
Sound power [4]		dB(A)	84	84	84	84	88	88
Sound pressure at 10 m [5]		dB(A)	52	52	52	52	56	56
Sound power HPF [4]		dB(A)	92	92	92	92	95	95
Sound pressure at 10 m HPF [5]		dB(A)	60	60	60	60	63	63
ECOi-W AQV 85-140 C S - cooling only			**85**	**95**	**105**	**115**	**125**	**140**
Cooling capacity [1]		kW	80,6	90,2	98,6	106	119,1	133,1
Input power [1]		kW	28	32,6	35,5	38,6	41,1	46,5
EER [1]			2,87	2,76	2,77	2,73	2,90	2,86
EER HSE [1]			3,00	2,87	2,87	2,81	2,96	2,91
SEER [2] [3]			**4,75**	**4,78**	**4,98**	**5,0**	**4,8**	**4,6**
$\eta_{s,c}$ [2] [3]			**187**	**188**	**196**	**197**	**189**	**181**
SEER HSE [2] [3]			**4,8**	**4,75**	**4,88**	**4,88**	**4,9**	**4,7**
$\eta_{s,c}$ HSE [2] [3]			**189**	**187**	**192**	**192**	**193**	**185**
Nominal water flow (in the evaporator)		m^3/h	13,9	15,5	16,9	18,2	20,5	22,9
Sound power [4]		dB(A)	82	82	82	82	86	86
Sound pressure at 10 m [5]		dB(A)	50	50	50	50	54	54
ECOi-W AQV 85-140 C HT - cooling only			**85**	**95**	**105**	**115**	**125**	**140**
Cooling capacity [1]		kW	86,2	96,9	107	115	124	139
Input power [1]		kW	28,1	31,6	33,9	36,4	41,1	46
EER [1]			3,07	3,06	3,15	3,16	3,03	3,03
SEER [2] [3]			**4,73**	**4,75**	**4,95**	**4,95**	**4,78**	**4,6**
$\eta_{s,c}$ [2] [3]			**186**	**187**	**195**	**195**	**188**	**181**
Nominal water flow (in the evaporator)		m^3/h	14,8	16,6	18,3	19,8	21,4	24,0
Sound power [4]		dB(A)	95	95	95	95	95	95
Sound pressure at 10 m [5]		dB(A)	63	63	63	63	63	63

1) According EN14511-2013: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 2) ErP compliant: following COMMISSION REGULATION (EU) 2016/2281. 3) According EN14825. 4) Sound levels are at fully loaded conditions. Sound power values refers to ISO 3744 standard. 5) Sound pressures refer to ISO 3744 standard, parallelepiped shape.

Accessories and options
Anti-vibration spring dampers
Automatic circuit breaker
BMS interface
Coils treatments
Desuperheater and total heat recovery
Fan speed control
Hydrokit with 1 or 2 pumps with or without buffer tank
Mechanical gauges

Accessories and options
Overload protection for compressors
Power factor corrector capacitors
Soft starter
Unit protection grilles
Water differential pressure
Water filter
Water pressure switch

ErP | HIGH SEER 5.00 | HIGH SCOP 4.12 | AIR COOLED | PLATE HEAT EXCHANGER | VERY HIGH PERFORMANCE

Technical performance

Power supply	Voltage	V	400	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50
Size			**85**	**95**	**105**	**115**	**125**	**140**
ECOi-W AQV 85-140 H - heat pump			**P-AQVE0085HA**	**P-AQVE0095HA**	**P-AQVE0105HA**	**P-AQVE0115HA**	**P-AQVE0125HA**	**P-AQVE0140HA**
Cooling capacity [1]	kW		81	89,9	98,9	106,9	115,8	129,2
Input power [1]	kW		27,5	31,5	34,2	36,9	41,8	46,5
EER [1]			2,95	2,85	2,89	2,89	2,77	2,78
EER HSE [1]			3,05	2,94	2,97	2,96	2,84	2,84
SEER [2]			**4,25**	**4,68**	**4,63**	**4,17**	**4,33**	**4,28**
$\eta_{s,c}$ [2]			**167**	**184**	**182**	**164**	**170**	**168**
SEER HSE [2]			**4,6**	**5,03**	**4,95**	**4,55**	**4,6**	**4,5**
$\eta_{s,c}$ HSE [2]			**181**	**198**	**195**	**179**	**181**	**177**
Nominal water flow (in the evaporator)	m^3/h		13,9	15,5	17,0	18,4	19,9	22,2
Heating capacity [3]	kW		91,8	102,8	110	119	134	146,9
Input power [3]	kW		26,8	30,5	32,2	35,2	40,9	44,8
COP [3]			3,42	3,37	3,42	3,38	3,28	3,28
COP HSE [3]			3,54	3,47	3,52	3,47	3,36	3,36
COP [3]			4,35	4,28	4,36	4,32	4,16	4,17
COP HSE [4]			4,53	4,44	4,52	4,46	4,29	4,28
SCOP [2] [5]			**3,61**	**3,64**	**3,78**	**3,77**	**3,47**	**3,54**
$\eta_{s,h}$ [2] [5]			**141**	**143**	**148**	**148**	**136**	**139**
Nominal water flow (in the evaporator)	m^3/h		17,2	17,8	19,3	20,6	23,3	25,5
Sound power [6]	dB(A)		84	84	84	84	88	88
Sound pressure at 10 m [7]	dB(A)		52	52	52	52	56	56
Sound power HPF [6]	dB(A)		92	92	92	92	95	95
Sound pressure at 10 m HPF [7]	dB(A)		60	60	60	60	63	63
ECOi-W AQV 85-140 H S - heat pump			**85**	**95**	**105**	**115**	**125**	**140**
Cooling capacity [1]	kW		78,4	86,7	95,1	102	112	124,6
Input power [1]	kW		28,6	33,2	36,0	39,1	43,1	47,6
EER [1]			2,75	2,61	2,64	2,62	2,61	2,63
EER HSE [1]			2,84	2,69	2,71	2,69	2,65	2,67
SEER [2]			**4,25**	**4,68**	**4,63**	**4,17**	**4,33**	**4,28**
$\eta_{s,c}$ [2]			**167**	**184**	**182**	**164**	**170**	**168**
SEER HSE [2]			**4,6**	**5,03**	**4,95**	**4,55**	**4,6**	**4,5**
$\eta_{s,c}$ HSE [2]			**181**	**198**	**195**	**179**	**181**	**177**
Nominal water flow (in the evaporator)	m^3/h		13,5	14,9	16,3	17,6	19,3	21,5
Heating capacity [3]	kW		89,5	99,8	108	115	129	142
Input power [3]	kW		26,4	30,1	32,0	34,7	39,3	43,0
COP [3]			3,39	3,32	3,36	3,32	3,29	3,30
COP HSE [3]			3,55	3,46	3,50	3,45	3,38	3,38
COP [3]			4,32	4,24	4,31	4,25	4,22	4,24
COP HSE [4]			4,58	4,46	4,51	4,44	4,34	4,35
SCOP [2] [5]			**3,61**	**3,64**	**3,78**	**3,77**	**3,47**	**3,54**
$\eta_{s,h}$ [2] [5]			**141**	**143**	**148**	**148**	**136**	**139**
Nominal water flow (in the evaporator)	m^3/h		15,6	17,4	18,8	20,1	22,5	24,7
Sound power [6]	dB(A)		82	82	82	82	86	86
Sound pressure at 10 m [7]	dB(A)		50	50	50	50	54	54
ECOi-W AQV 85-140 H HT - heat pump			**85**	**95**	**105**	**115**	**125**	**140**
Cooling capacity [1]	kW		83,5	93,4	104	112	118	132
Input power [1]	kW		28,4	32,0	34,4	37	42	46,2
EER [1]			2,94	2,9	3,02	3,02	2,8	2,85
SEER [2]			**4,6**	**5,02**	**4,95**	**4,55**	**4,6**	**4,5**
$\eta_{s,c}$ [2]			**181**	**198**	**195**	**179**	**181**	**177**
Nominal water flow (in the evaporator)	m^3/h		14,3	16,0	17,8	19,2	20,3	22,7
Heating capacity [3]	kW		93,4	104,9	113,7	121,9	135	148
Input power [3]	kW		29,4	33,1	35,0	37,8	42,2	46,1
COP [3]			3,18	3,17	3,25	3,23	3,21	3,21
COP [4]			3,98	3,98	4,08	4,07	4,06	4,08
SCOP [2] [5]			**3,99**	**3,96**	**4,12**	**4,07**	**3,73**	**3,77**
$\eta_{s,h}$ [2] [5]			**157**	**155**	**162**	**160**	**146**	**148**
Nominal water flow (in the evaporator)	m^3/h		16,3	18,3	19,8	21,2	23,6	25,8
Sound power [6]	dB(A)		95	95	95	95	95	95
Sound pressure at 10 m [7]	dB(A)		63	63	63	63	63	63

1) According EN14511-2013: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 2) According EN14825. 3) According EN14511-2013: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 4) According EN14511-2013: warm water inlet/outlet temperature: 30/35 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 5) ErP compliant: following COMMISSION REGULATION (EU) No 813/2013.6) Sound levels are at fully loaded conditions. Sound power values refers to ISO 3744 standard. 7) Sound pressures refer to ISO 3744 standard, parallelepiped shape.

Technical performance

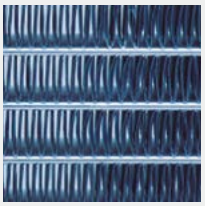
Power supply	Voltage	V	400	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50
Size			**85**	**95**	**105**	**115**	**125**	**140**
ECOi-W AQV 85-140 E STD / HSE / HPF - condensing unit			**P-AQVE0085EA**	**P-AQVE0095EA**	**P-AQVE0105EA**	**P-AQVE0115EA**	**P-AQVE0125EA**	**P-AQVE0140EA**
Cooling capacity [1]		kW	92,1	103,2	113,2	121,8	134,7	151,0
Input power [1]		kW	27,4	31,4	34,1	37,0	41,7	46,8
Sound power [2]		dB(A)	84	84	84	84	88	88
Sound pressure at 10 m [3]		dB(A)	53	53	53	53	57	57
ECOi-W AQV 85-140 E STD / HSE S - condensing unit			**85**	**95**	**105**	**115**	**125**	**140**
Cooling capacity [1]		kW	89	99,5	108,7	116,6	131,6	147,2
Input power [1]		kW	28,6	33,1	36,1	39,3	41,9	47,3
Sound power [2]		dB(A)	82	82	82	82	86	86
Sound pressure at 10 m [3]		dB(A)	51	51	51	51	55	55
ECOi-W AQV 85-140 E HT - condensing unit			**85**	**95**	**105**	**115**	**125**	**140**
Cooling capacity [1]		kW	95	106,8	117,7	127	137,2	153,8
Input power [1]		kW	28,5	32,1	34,4	36,9	41,8	46,7
Sound power [2]		dB(A)	95	95	95	95	95	95
Sound pressure at 10 m [3]		dB(A)	64	64	64	64	64	64

Physical features

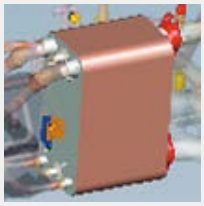
ECOi-W AQV 85-140 C/H/E - cooling only / heat pump / condensing unit			**85**	**95**	**105**	**115**	**125**	**140**
Dimension	H x W x L	mm	2185 x 1095 x 2555	2185 x 1095 x 2555	2185 x 1095 x 2555	2185 x 1095 x 2555	2185 x 1095 x 3155	2185 x 1095 x 3155
Operating weight (C type)	STD / HT / S	kg	1058 / 1088	1072 / 1102	1111 / 1141	1143 / 1173	1183 / 1213	1262 / 1292
Operating weight (H type)	STD / HT / S	kg	1090 / 1120	1105 / 1135	1149 / 1179	1180 / 1210	1227 / 1257	1301 / 1331
Shipping weight (E type)	STD / S	kg	971 / 1001	983 / 1013	1013 / 1043	1043 / 1073	1066 / 1096	1142 / 1172
Water connections (85-140 C/H types)								
Type of water connections (evaporator)			Male gas threaded	Male gas threaded	Male gas threaded	Male gas threaded	Male gas threaded	Male gas threaded
Water inlet/outlet diameter		Inch	2 ½	2 ½	2 ½	2 ½	2 ½	2 ½
Condenser (85-140 E type)								
Connection type			To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed
Inlet diameter		Inch	⅝	⅝	⅝	⅝	⅞	⅞
Outlet diameter		Inch	1 ⅜	1 ⅜	1 ⅜	1 ⅜	1 ⅜	1 ⅜

1) Data refers to 7 °C leaving chilled water temperature and 35 °C condenser air temperature, according EN14511-2013 standard. 2) Sound levels are at fully loaded conditions. Sound power values refers to ISO 3744 standard. 3) Sound pressures refer to ISO 3744 standard, parallelepiped shape.

Special inverter fan.
Option.



Bluefin coil.
As standard on H models.



True dual circuit evaporator.
Optimised heat transfer coefficient.

3 pump option.
Energy saving in partial load.

ECOi-W VL H/E · R410A

Air cooled heat pumps and condensing units.

Cooling capacity: 176,2 to 307 kW.
Heating capacity: 200 to 337,4 kW.

Operating limits

To be confirmed with AC SELECT:
https://acselect.panasonic.eu/

ECOi-W VL 604-904 H - heat pump			704	804	904
Cooling – Water outlet temperature	Water	°C	From 6 to 15		
	Water with glycol	°C	From 0 to 15		
	Water with glycol (Brine version)	°C	From -8 to 15		
	ΔT	°C	From 3 to 8		
Cooling – Outdoor air temperature	STD	°C	-5 to 47	0 to 46	0 to 47
	L	°C	-5 to 45	0 to 44	0 to 45
	S	°C	-18 to 41	-18 to 40	-18 to 41
	HT	°C	-18 to 49	-18 to 48	-18 to 49
ECOi-W VL 1004-1204 H - heat pump			**1004**	**1104**	**1204**
Cooling – Water outlet temperature	Water	°C	From 6 to 15		
	Water with glycol	°C	From 0 to 15		
	Water with glycol (Brine version)	°C	From -8 to 15		
	ΔT	°C	From 3 to 8		
Cooling – Outdoor air temperature	STD	°C	0 to 46	0 to 45	0 to 45
	L	°C	0 to 44	0 to 42	0 to 42
	S	°C	-18 to 40	-18 to 38	-18 to 38
	HT	°C	-18 to 48	-18 to 47	-18 to 47
ECOi-W VL 604-1204 H - heat pump					
Heating – Water outlet temperature		°C	From 30 to 50 [1]		
Heating – Air temperature	STD	°C	From -10 to 20 [1]		
	L / S	°C	From - 4 to 20 [1]		
External static pressure	STD fans	Pa	0		
	Inverter HPF	Pa	<120		
ECOi-W VL 604-904 E - condensing unit			**704**	**804**	**904**
Evaporating temperature		°C	From 1 to 15		
Outdoor air temperature	STD	°C	-18 to 47 [1]	-18 to 46 [1]	-18 to 46 [2]
	L / S	°C	-18 to 45 [1]	-18 to 44 [1]	-18 to 45 [2]
	HT	°C	-18 to 49 [1]	-18 to 48 [1]	-18 to 49 [2]
ECOi-W VL 604-904 E - condensing unit			**1004**	**1104**	**1204**
Evaporating temperature		°C	1 to 15		
Outdoor air temperature	STD	°C	-18 to 46 [2]	-18 to 45 [2]	-18 to 45 [2]
	L / S	°C	-18 to 44 [2]	-18 to 42 [2]	-18 to 42 [2]
	HT	°C	-18 to 48 [2]	-18 to 47 [2]	-18 to 47 [2]

1(Maximum water outlet temperature 50 °C (minimum temperature outdoor air +0 °C) to be confirmed with AC SELECT selection software. 2) At high pressure 40,5 bar.
Chillers suitable for operation without buffer tank for water content greater than 3 liters of water per kW of output.

The range at a glance

- 2 versions: H (heat pump) and E (condensing unit)
- 6 sizes
- 3 configurations: STD (standard), HT (high temperature) and HPF (high pressure fan)
- 2 fan types: AC (standard fan) and EC (HSE model: high seasonal efficiency)
- 3 acoustic options: STD (standard), L (low noise) and S (super low noise)

Advantages

- High seasonal performances: SCOP up to 3,4
- Small footprint
- Common configuration for the different versions: easy upgrade of the units in stock or on field
- Electronic expansion device: excellent control of superheating for the best performance at full and partial load and for a safe operation
- Compressor box: remarkable sound reduction even for the basic noise version
- Control platform: modular architecture, compressor envelope integration, corrective actions in border line areas, easy-friendly user interface

Equipment

- 2 refrigerant circuits
- 4 scroll compressors (tandem)
- Plate evaporator (AISI 316)
- Microprocessor control
- Electronic expansion valve
- E-coating coil treatment
- Compressor acoustic box
- Phase sequence control
- Water differential pressure switch

Accessories and options
Anti-vibration spring dampers
Automatic circuit breaker
BMS interface
Coils treatments
Compressor jackets (standard on S)
Desuperheater and total heat recovery (TR version)
Fan speed control (-18 °C)
Hydrokit with 1 or 2 pumps with or without buffer tank (500 l) (+1 m of length)
Inverter fans
Mechanical gauges
Overload protection for compressors
Power factor corrector capacitors
Soft starter
Unit protection grilles
Water filter
Water flow switch

Technical performance

Power supply	Voltage	V	400	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50
Model			**P-VLE0704HA**	**P-VLE0804HA**	**P-VLE0904HA**	**P-VLE1004HA**	**P-VLE1104HA**	**P-VLE1204HA**
ECOi-W VL 704-1204 H STD / HPF - heat pump			**704**	**804**	**904**	**1004**	**1104**	**1204**
Cooling capacity [1]		kW	173,2	197,1	226,4	246,3	273,1	299,9
Input power [1]		kW	65,9	72,2	82,4	86,8	99,8	114,0
EER [1]			2,62	2,73	2,74	2,84	2,74	2,63
SEER [2]			**3,63**	**3,55**	**3,35**	**3,5**	**3,53**	**3,43**
$\eta_{s,c}$ [2]			**142**	**139**	**131**	**137**	**138**	**134**
SEER HSE [2]			**3,95**	**3,83**	**3,65**	**3,8**	**3,78**	**3,68**
$\eta_{s,c}$ HSE [2]			**155**	**150**	**143**	**149**	**148**	**144**
Nominal water flow (in the evaporator)		m^3/h	29,9	33,9	38,8	42,4	47,0	51,6
Heating capacity [3]		kW	200,1	223,2	254,7	270,8	302,1	337,4
Input power [3]		kW	67,4	70,4	79,6	87,6	100,0	112,5
COP [3]			2,97	3,17	3,20	3,09	3,02	3,00
COP [4]			3,71	3,96	3,99	3,86	3,78	3,77
SCOP [2] [5]			**3,41**	**3,42**	**3,28**	**3,39**	**3,30**	**3,19**
$\eta_{s,h}$ [2] [5]			**133**	**134**	**128**	**133**	**129**	**125**
SCOP HSE [2] [5]			**3,44**	**3,4**	**3,32**	**3,33**	**3,37**	**3,3**
Nominal water flow (in the evaporator)		m^3/h	34,7	38,6	43,6	47,0	52,3	58,4
Sound power [6]		dB(A)	93	93	94	94	95	95
Sound pressure at 10 m [7]		dB(A)	61	61	62	62	63	63
ECOi-W VL 704-1204 H L - heat pump			**704**	**804**	**904**	**1004**	**1104**	**1204**
Cooling capacity [1]		kW	168,2	191,2	220,4	237,3	261,2	285,1
Input power [1]		kW	66,2	73,3	83,8	88,5	102,8	119,8
EER [1]			2,54	2,61	2,63	2,68	2,54	2,38
SEER [2]			**3**	**3**	**3,1**	**3,28**	**3,3**	**3,23**
$\eta_{s,c}$ [2]			**117**	**117**	**121**	**128**	**129**	**126**
SEER HSE [2]			**3,95**	**3,83**	**3,65**	**3,80**	**3,78**	**3,68**
$\eta_{s,c}$ HSE [2]			**155**	**150**	**143**	**149**	**148**	**144**
Nominal water flow (in the evaporator)		m^3/h	29,0	32,9	38,2	40,8	45,0	49,1
Heating capacity [3]		kW	195,0	217,1	247,7	261,8	288,9	322,2
Input power [3]		kW	65,2	68,3	76,9	84,7	97,0	109,2
COP [3]			2,99	3,18	3,22	3,09	2,98	2,95
COP [4]			3,77	4,01	4,06	3,9	3,76	3,72
SCOP [2] [5]			**3,41**	**3,42**	**3,28**	**3,39**	**3,20**	**3,19**
$\eta_{s,h}$ [2] [5]			**133**	**134**	**128**	**133**	**125**	**125**
SCOP HSE [2] [5]			**3,44**	**3,4**	**3,32**	**3,33**	**3,37**	**3,24**
Nominal water flow (in the evaporator)		m^3/h	33,8	37,5	42,5	45,4	50,0	55,8
Sound power [6]		dB(A)	87	87	88	88	89	89
Sound pressure at 10 m [7]		dB(A)	55	55	56	56	57	57
ECOi-W VL 704-1204 H S - heat pump			**704**	**804**	**904**	**1004**	**1104**	**1204**
Cooling capacity [1]		kW	164,3	185,2	214,5	230,4	253,3	276,1
Input power [1]		kW	69,0	76,2	86,1	90,7	106,9	124,9
EER [1]			2,38	2,43	2,49	2,54	2,37	2,21
SEER [2]			**3,63**	**3,55**	**3,35**	**3,5**	**3,53**	**3,43**
$\eta_{s,c}$ [2]			**142**	**139**	**131**	**137**	**138**	**134**
SEER HSE [2]			**3,95**	**3,83**	**3,65**	**3,8**	**3,78**	**3,68**
$\eta_{s,c}$ HSE [2]			**155**	**150**	**143**	**149**	**148**	**144**
Nominal water flow (in the evaporator)		m^3/h	28,3	31,9	36,9	39,7	43,6	47,5
Heating capacity [3]		kW	184,9	202,9	232,6	245,7	266,8	297,0
Input power [3]		kW	64,9	67,0	75,8	83,9	95,0	108,0
COP [3]			2,85	3,03	3,07	2,93	2,81	2,75
COP HSE [3]			2,95	3,13	3,19	3,04	2,90	2,83
COP [4]			3,6	3,83	3,88	3,71	3,56	3,48
COP HSE [4]			3,76	3,98	4,07	3,87	3,7	3,59
SCOP [2] [5]			**3,41**	**3,42**	**3,28**	**3,39**	**3,30**	**3,19**
$\eta_{s,h}$ [2] [5]			**133**	**134**	**128**	**133**	**129**	**125**
SCOP HSE [2] [5]			**3,44**	**3,4**	**3,32**	**3,33**	**3,37**	**3,26**
Nominal water flow (in the evaporator)		m^3/h	32,0	35,2	40,4	42,5	46,3	51,5
Sound power [6]		dB(A)	83	83	84	84	85	85
Sound pressure at 10 m [7]		dB(A)	51	51	52	52	53	53

1) According EN14511-2013: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 2) According EN14825. 3) According EN14511-2013: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 4) According EN14511-2013: warm water inlet/outlet temperature: 30/35 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 5) ErP compliant: following COMMISSION REGULATION (EU) No 813/2013. 6) Sound levels are at fully loaded conditions. Sound power values refers to ISO 3744 standard. 7) Sound pressures refer to ISO 3744 standard, parallelepiped shape.

ErP | HIGH SEER 3.63 | HIGH SCOP 3.42 | AIR COOLED | PLATE HEAT EXCHANGER | SCROLL COMPRESSOR | VERY HIGH PERFORMANCE

Specifications subject to change without notice. For detailed information about ErP / Energy Labelling, please visit our websites www.aircon.panasonic.eu or www.ptc.panasonic.eu.

Technical performance

Power supply	Voltage	V	400	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50
ECOi-W VL 704-1204 H HT - heat pump			**704**	**804**	**904**	**1004**	**1104**	**1204**
Cooling capacity [1]		kW	175,6	199,7	229,5	250,1	276,5	305,6
Input power [1]		kW	66,3	72,4	83,6	87,4	101,1	114,2
EER [1]			2,64	2,75	2,74	2,85	2,73	2,67
SEER [2]			**3**	**3**	**3,1**	**3,28**	**3,3**	**3,23**
$\eta_{s,c}$ [2]			**117**	**117**	**121**	**128**	**129**	**126**
Nominal water flow (in the evaporator)		m^3/h	30,1	34,3	39,4	42,9	47,5	52,5
Heating capacity [3]		kW	200,7	224,0	256,6	273,7	305,5	341,5
Input power [3]		kW	68,6	71,7	81,8	90,2	103	115
COP [3]			2,93	3,13	3,14	3,04	2,98	2,97
COP [4]			3,66	3,92	3,91	3,79	3,73	3,73
SCOP [2] [5]			**3,44**	**3,40**	**3,32**	**3,33**	**3,37**	**3,26**
$\eta_{s,h}$ [2] [5]			**135**	**133**	**130**	**130**	**132**	**127**
Nominal water flow (in the evaporator)		m^3/h	34,9	39,0	44,7	47,6	53,2	59,4
Sound power [6]		dB(A)	99	99	100	100	100	100
Sound pressure at 10 m [7]		dB(A)	67	67	68	68	68	68
Model			**P-VLE0704EA**	**P-VLE0804EA**	**P-VLE0904EA**	**P-VLE1004EA**	**P-VLE1104EA**	**P-VLE1204EA**
ECOi-W VL 704-1204 E STD / HPF - condensing unit			**704**	**804**	**904**	**1004**	**1104**	**1204**
Cooling capacity [8]		kW	199,0	224,0	258,0	283,0	315,0	347,0
Input power [8]		kW	68,7	74,7	86,6	90,6	106	120
Sound power [6]		dB(A)	93	93	94	94	95	95
Sound pressure at 10 m [7]		dB(A)	61	61	62	62	63	63
ECOi-W VL 704-1204 E L - condensing unit			**704**	**804**	**904**	**1004**	**1104**	**1204**
Cooling capacity [8]		kW	194,0	218,0	251,0	272,5	301,0	330,0
Input power [8]		kW	69,6	76,6	87,8	92,8	109	126
Sound power [6]		dB(A)	87	87	88	88	89	89
Sound pressure at 10 m [7]		dB(A)	55	55	56	56	57	57
ECOi-W VL 704-1204 E S - condensing unit			**704**	**804**	**904**	**1004**	**1104**	**1204**
Cooling capacity [8]		kW	188,5	211,0	244,0	264,5	292,0	319,0
Input power [8]		kW	72,0	79,5	90,5	95,5	112	131
Sound power [6]		dB(A)	83	83	84	84	85	85
Sound pressure at 10 m [7]		dB(A)	51	51	52	52	53	53
ECOi-W VL 704-1204 E HT - condensing unit			**704**	**804**	**904**	**1004**	**1104**	**1204**
Cooling capacity [8]		kW	201,0	226,5	261,0	286,5	318,0	353,0
Input power [8]		kW	68,9	74,9	87,1	91,0	105	119
Sound power [6]		dB(A)	99	99	100	100	100	100
Sound pressure at 10 m [7]		dB(A)	67	67	68	68	68	68

1) According EN14511-2013: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 2) According EN14825. 3) According EN14511-2013: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 4) According EN14511-2013: warm water inlet/outlet temperature: 30/35 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 5) ErP compliant: following COMMISSION REGULATION (EU) No 813/2013. 6) Sound levels are at fully loaded conditions. Sound power values refers to ISO 3744 standard. 7) Sound pressures refer to ISO 3744 standard, parallelepiped shape. 8) Data refers to 7 °C leaving chilled water temperature and 35 °C condenser air temperature.

Physical features

ECOi-W VL 704 - 1204 H/E - dimensions			704	804	904	1004	1104	1204
Dimension	H x W x L	mm	2300 x 1100 x 4300	2300 x 1100 x 4300	2300 x 1100 x 4300	2300 x 1100 x 4300	2300 x 1100 x 4300	2300 x 1100 x 4300
Operating weight - heat pump	STD / L	kg	1675	1820	1980	2125	2215	2225
	S	kg	1710	1855	2015	2165	2255	2265
	HT	kg	1705	1850	2020	2165	2255	2265
Shipping weight - condensing unit	STD / L	kg	1490	1615	1700	1825	1910	1920
	S	kg	1525	1650	1735	1865	1950	1960
	HT	kg	1520	1645	1740	1865	1950	1960
ECOi-W VL 704-1204 H STD / HPF - heat pump			**704**	**804**	**904**	**1004**	**1104**	**1204**
Water connections								
Type of water connections (evaporator)			Male gas threaded	Male gas threaded	Male gas threaded	Male gas threaded	Male gas threaded	Male gas threaded
Water inlet/outlet diameter		Inch	2 ½	2 ½	3	3	3	3
ECOi-W VL 704-1204 E - condensing unit			**704**	**804**	**904**	**1004**	**1104**	**1204**
Refrigerant connection								
Inlet diameter		Inch	⅞	⅞	1 ⅛	1 ⅛	1 ⅛	1 ⅛
Outlet diameter		Inch	1 ⅝	1 ⅝	2 ⅛	2 ⅛	2 ⅛	2 ⅛

ECOi-W AQUA EVO 140-360 C/H/E · R410A

Air cooled chillers, heat pumps and condensing units.

Cooling capacity: 144 to 360,7 kW.
Heating capacity: 144,9 to 361,4 kW.

Operating limits

To be confirmed with AC SELECT:
https://acselect.panasonic.eu/

ECOi-W AQUA EVO 140-360 C - cooling only				
Chilled liquid	Liquid outlet temperature	Water	°C	From 5 to 18
		Water with glycol*	°C	From -10 to 5
		Temperature spread	K	From 3 to 7
	Maximum operating pressure		bar	6
Outdoor air temperature	Air entering temperature cooling	STD	°C	From 5 to 48
		L	°C	From 0 to 46
		S	°C	From -14 to 44
		EC-HT	°C	From -18 to 50
External static pressure	Standard fans		Pa	0
	High pressure fan (HPF)		Pa	<120
ECOi-W AQUA EVO 140-360 H - heat pump				
Chilled liquid	Liquid outlet temperature	Water	°C	From 5 to 18
		Water with glycol*	°C	From -10 to 5
		ΔT	K	From 3 to 7
Outdoor air temperature	Air entering temperature cooling	STD / L / S	°C	5 to 48 / 0 to 46 / -14 to 44
		EC-HT	°C	From -18 to 50
Warm liquid	Liquid outlet temperature	Water	°C	From 20 to 55
		ΔT	K	From 3 to 7
Outdoor air temperature	Air entering temperature heating	STD / L / S / EC	°C	From -10 to 20
		Polar version	°C	From -13 to 20
		HT	°C	From -13 to 20
External static pressure	Standard fans		Pa	0
	High pressure fan (HPF)		Pa	<120
ECOi-W AQUA EVO 140-360 E - condensing unit				
Evaporating temperature			°C	From 1 to 15
Outdoor air temperature		STD	°C	From 5 to 48
		L	°C	From -14 to 46
		S	°C	From -14 to 44
		EC-HT	°C	From -18 to 50

*** For Liquid outlet temperature <0 °C provide Brine Version (available for L; upon request for H).**

The range at a glance

- 3 versions: C (cooling only), H (heat pump) and E (condensing unit)
- 8 sizes
- 3 configurations: STD (standard), HT (high temperature fan) and HPF (high pressure fan)
- 2 fan types: AC (standard fan) and EC (high efficiency fan)
- 3 acoustic options: STD (standard), L (low noise) and S (super low noise)

Advantages

- High seasonal performances: SEER up to 4,3
- Common configuration for the different versions: easy upgrade of the units in stock or on field
- Electronic expansion device: excellent control of superheating for the best performance at full and partial load and for a safe operation
- Microchannel coils: significant reduction on refrigerant charge and operating weight
- Compressor box: remarkable sound reduction even for the basic noise version
- Control platform: modular architecture, compressor envelope integration, corrective actions in border line areas, easy-friendly user interface

Equipment

- 2 refrigerant circuits
- 4 scroll compressors (tandem)
- Electronic expansion valve
- Microchannel coils
- E-coating coil treatment
- Brine version: cooling only for process application LWT -10 °C (C type)
- Polar version: heat pump for extreme conditions (H type)
- Plate heat exchanger evaporator
- Compressor acoustic box
- Compressor jackets (standard as super low noise)
- Fan speed control (standard as super low noise)
- Phase sequence control
- Water differential pressure switch

Technical performance

Power supply [1]	Voltage	V	400	400	400	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50	50	50
Model		**P-**	**AQAVE0140CA**	**AQAVE0170CA**	**AQAVE0230CA**	**AQAVE0260CA**	**AQAVE0280CA**	**AQAVE0300CA**	**AQAVE0330CA**	**AQAVE0360CA**
ECOi-W AQUA EVO 140-360 C - cooling only			**140***	**170***	**230**	**260**	**280**	**300**	**330**	**360**
Nominal cooling capacity [2]		kW	144	169	231	263	284	310	331	362
Input power [2]		kW	44,6	54,2	74,8	84,6	91,3	99,0	104,7	116,8
EER [2] / EER*			— / 3,2	— / 3,1	3,1 / 3,1	3,1 / 3,2	3,1 / 3,2	3,1 / 3,2	3,2 / 3,2	3,1 / 3,2
SEER [3] [4]			**4,45**	**4,28**	**4,25**	**4,25**	**4,23**	**4,18**	**4,20**	**4,10**
$\eta_{s,c}$ [3] [4]			**175**	**168**	**167**	**167**	**166**	**164**	**165**	**161**
Nominal water flow (in the evaporator)		m^3/h	24,8	29,1	39,6	45,2	48,8	53,2	56,9	62,1
Sound power [5]		dB(A)	90	90	92	93	93	94	95	95
Sound pressure 10 m [6]		dB(A)	58	58	60	61	61	62	63	63
ECOi-W AQUA EVO 140-360 C L - cooling only			**140***	**170***	**230**	**260**	**280**	**300**	**330**	**360**
Nominal cooling capacity [2]		kW	140	163	224	256	276	301	322	351
Input power [2]		kW	44,3	54,7	74,4	84,5	92,0	99,7	104,9	117,8
EER [2] / EER*			— / 3,2	— / 3	3 / 3,02	3,0 / 3,1	3,0 / 3,0	3,0 / 3,1	3,1 / 3,1	3 / 3,03
SEER [3] [4]			**4,33**	**4,20**	**4,28**	**4,28**	**4,25**	**4,25**	**4,25**	**4,10**
$\eta_{s,c}$ [3] [4]			**170**	**165**	**168**	**168**	**167**	**167**	**167**	**161**
Nominal water flow (in the evaporator)		m^3/h	24,1	28,1	38,4	43,9	47,4	51,7	55,3	60,2
Sound power [5]		dB(A)	85	85	87	88	88	89	90	90
Sound pressure 10 m [6]		dB(A)	53	53	55	56	56	57	58	58
ECOi-W AQUA EVO 140-360 C S - cooling only			**140***	**170***	**230**	**260**	**280**	**300**	**330**	**360**
Nominal cooling capacity [2]		kW	133	153	210	242	259	283	305	329
Input power [2]		kW	48,0	57,1	79,2	88,6	97,4	105,6	109,7	123,7
EER [2] / EER*			— / 2,8	— / 2,7	2,7 / 2,7	2,7 / 2,8	2,7 / 2,7	2,7 / 2,7	2,8 / 2,8	2,7 / 2,7
SEER [3] [4]			**4,15**	**4,13**	**4,1**	**4,15**	**4,1**	**4,1**	**4,1**	**4,1**
$\eta_{s,c}$ [3] [4]			**163**	**162**	**161**	**163**	**161**	**161**	**161**	**161**
Nominal water flow (in the evaporator)		m^3/h	22,8	26,3	36,1	41,5	44,6	48,6	52,4	56,6
Sound power [5]		dB(A)	79	79	82	83	83	85	86	86
Sound pressure 10 m [6]		dB(A)	47	47	50	51	51	53	54	54
ECOi-W AQUA EVO 140-360 C HT - cooling only			**140**	**170**	**230**	**260**	**280**	**300**	**330**	**360**
Nominal cooling capacity [2]		kW	145	170	232	265	286	312	333	364
Input power [2]		kW	47,0	56,4	77,6	87,9	94,7	103,7	109,9	121,7
EER [2]			3,09	3,02	2,99	3,01	3,02	3,01	3,03	2,99
SEER [3] [4]			**4,45**	**4,28**	**4,63**	**4,65**	**4,63**	**4,68**	**4,65**	**4,43**
$\eta_{s,c}$ [3] [4]			**175**	**168**	**182**	**183**	**182**	**184**	**183**	**174**
Nominal water flow (in the evaporator)		m^3/h	25,0	29,3	40,0	45,6	49,3	53,7	57,3	62,7
Sound power [5]		dB(A)	92	92	94	96	96	97	98	98
Sound pressure 10 m [6]		dB(A)	60	60	62	64	64	65	66	66

1) Voltage 400 V +/- 10%. 2) According EN14511-2013: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 3) ErP compliant: following COMMISSION REGULATION (EU) 2016/2281. 4) According EN14825. 5) Sound levels are at fully loaded conditions. Sound power values refers to ISO 3744 standard. 6) Sound pressures refer to ISO 3744 standard, parallelepiped shape.
7) According EN14511-2013: nominal cooling capacity refers to 7 °C leaving chilled water temperature and 45 °C leaving warm water temperature.
* High efficiency units (EC) with inverter fans.

Accessories and options
Anti-vibration spring dampers
Automatic circuit breaker
BMS interface
Coils treatments
Desuperheater
Fan speed control (-14 °C in cooling mode – standard as super low noise version)
Hydrokit with 1 or 2 pumps with or without buffer tank (350 l 140-170, 500 l 200-360)

Accessories and options
Mechanical gauges
Overload protection for compressors
Power factor corrector capacitors
Soft starter
SRC - mini BMS controller
Unit protection grilles
Water filter
Water flow switch

ErP | HIGH SEER 4,68 | HIGH SCOP 3,58 | AIR COOLED | SCROLL COMPRESSOR | VERY HIGH PERFORMANCE

ErP: Sizes 140 and 170 are ErP compliant only with EC fans.

Specifications subject to change without notice. For detailed information about ErP / Energy Labelling, please visit our websites www.aircon.panasonic.eu or www.ptc.panasonic.eu.

Technical performance

Power supply [1]	Voltage	V	400	400	400	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50	50	50
Model		**P-**	**AQAVE0140HA**	**AQAVE0170HA**	**AQAVE0230HA**	**AQAVE0260HA**	**AQAVE0280HA**	**AQAVE0300HA**	**AQAVE0330HA**	**AQAVE0360HA**
ECOi-W AQUA EVO 140-360 H - heat pump			**140**	**170**	**230**	**260**	**280**	**300**	**330**	**360**
Nominal cooling capacity [2]		kW	137	155	214	244	261	288	307	341
Input power [2]		kW	45,1	54,6	73,2	83,8	90,7	98,5	103,5	117,0
EER [2]			3,03	2,83	2,92	2,91	2,88	2,92	2,97	2,91
EER* / EER**			3,08 / 2,86	2,86 / 2,69	2,96 / 2,75	2,95 / 2,73	2,91 / 2,71	2,96 / 2,75	3,02 / 2,78	2,95 / 2,74
SEER / $\eta_{s,c}$ [3]			**3,8 / 149**	**3,95 / 155**	**4,13 / 162**	**4,05 / 159**	**4,1 / 161**	**3,83 / 150**	**3,8 / 149**	**3,93 / 154**
SEER* / SEER [3]**			**3,95**	**4,08**	**4,22**	**4,13**	**4,2**	**3,93**	**3,8**	**4,05**
$\eta_{s,c}$ * / $\eta_{s,c}$ ** [3]			**155**	**160**	**166**	**162**	**165**	**154**	**149**	**159**
Nominal water flow (in the evaporator)		m³/h	23,6	26,6	36,8	42,0	45,0	49,5	52,9	58,6
Nominal heating capacity [4] [5]	40-45 °C / 30-35 °C	kW	145 / 149	166 / 170	229 / 234	262 / 269	280 / 286	306 / 311	327 / 334	361 / 368
Input power [4] [5]	40-45 °C / 30-35 °C	kW	44,9 / 37,2	51,6 / 43,6	70,9 / 58,7	81,7 / 67,8	87,4 / 72,3	94,9 / 77,8	101,9 / 83,7	112,6 / 92,7
COP [4] [5]	40-45 °C / 30-35 °C		3,23 / 4,00	3,21 / 3,90	3,23 / 3,98	3,21 / 3,96	3,20 / 3,95	3,22 / 4,00	3,21 / 3,99	3,21 / 3,97
COP* / COP**			3,28 / 3,05	3,25 / 3,05	3,27 / 3,03	3,26 / 3,01	3,25 / 3,02	3,27 / 3,02	3,26 / 2,99	3,26 / 3,02
SCOP [3] [6]			**3,39**	**3,42**	**3,46**	**3,48**	**3,44**	**3,51**	**3,44**	**3,48**
$\eta_{s,h}$ [3] [6]			**133**	**134**	**135**	**136**	**135**	**137**	**135**	**136**
Nominal water flow (in the evaporator)		m³/h	25,1	28,7	39,7	45,5	48,5	53,0	56,8	62,7
Sound power [7]		dB(A)	90	90	92	93	93	94	95	95
Sound pressure at 10 m [8]		dB(A)	58	58	60	61	61	62	63	63
ECOi-W AQUA EVO 140-360 H L - heat pump			**140**	**170**	**230**	**260**	**280**	**300**	**330**	**360**
Nominal cooling capacity [2]		kW	133	149	207	237	253	279	299	330
Input power [2]		kW	45,2	55,3	73,7	83,7	91,4	99,1	103,1	117,5
EER [2] / EER*			2,94 / 2,98	2,70 / 2,73	2,81 / 2,85	2,83 / 2,87	2,77 / 2,81	2,82 / 2,86	2,90 / 2,94	2,81 / 2,84
SEER / $\eta_{s,c}$ [3]			**3,8 / 149**	**3,95 / 155**	**4,13 / 162**	**4,05 / 159**	**4,1 / 161**	**3,83 / 150**	**3,8 / 149**	**3,93 / 154**
SEER / $\eta_{s,c}$ * [3]			**4,58 / 180**	**4,65 / 183**	**3,7 / 145**	**3,65 / 143**	**3,63 / 142**	**2,58 / 100**	**2,65 / 103**	**4,17 / 164**
Nominal water flow (in the evaporator)		m³/h	22,9	25,7	35,7	40,8	43,6	48,1	51,5	56,8
Nominal heating capacity [4] [5]	40-45 °C / 30-35 °C	kW	141 / 144	162 / 166	224 / 228	256 / 261	272 / 277	299 / 304	321 / 326	354 / 359
Input power [4] [5]	40-45 °C / 30-35 °C	kW	43,5 / 35,8	50,3 / 42,2	69,0 / 56,5	79,4 / 65,2	84,8 / 69,8	92,7 / 75,2	99,6 / 81,0	109,9 / 89,8
COP [4] [5]	40-45 °C / 30-35 °C		3,24 / 4,03	3,22 / 3,93	3,24 / 4,03	3,22 / 4,00	3,21 / 3,97	3,23 / 4,04	3,22 / 4,03	3,22 / 4,00
COP* [4]			3,32	3,30	3,32	3,31	3,29	3,31	3,31	3,30
SCOP [3] [6]			**3,39**	**3,42**	**3,46**	**3,48**	**3,44**	**3,51**	**3,44**	**3,48**
$\eta_{s,h}$ [3] [6]			**133**	**134**	**135**	**136**	**135**	**137**	**135**	**136**
Nominal water flow (in the evaporator)		m³/h	24,5	28,1	38,8	44,3	47,2	52,0	55,7	61,4
Sound power [7]		dB(A)	85	85	87	88	88	89	90	90
Sound pressure at 10 m [8]		dB(A)	53	53	55	56	56	57	58	58
ECOi-W AQUA EVO 140-360 H S - heat pump			**140**	**170**	**230**	**260**	**280**	**300**	**330**	**360**
Nominal cooling capacity [2]		kW	126	140	194	224	239	263	284	311
Input power [2]		kW	47,2	57,7	77,6	88,2	96,6	104,5	108,2	124,2
EER [2] / EER*			2,67 / 2,71	2,43 / 2,45	2,51 / 2,54	2,54 / 2,58	2,47 / 2,50	2,52 / 2,55	2,62 / 2,66	2,50 / 2,53
SEER / $\eta_{s,c}$ [3]			**3,8 / 149**	**3,95 / 155**	**4,13 / 162**	**4,05 / 159**	**3,60 / 141**	**3,83 / 150**	**3,8 / 149**	**3,93 / 154**
SEER / $\eta_{s,c}$ * [3]			**4,58 / 180**	**4,65 / 183**	**3,7 / 145**	**3,65 / 143**	**3,63 / 142**	**2,58 / 100**	**2,65 / 103**	**4,17 / 164**
Nominal water flow (in the evaporator)		m³/h	21,7	24,2	33,5	38,6	41,1	45,3	48,8	53,5
Nominal heating capacity [4] [5]	40-45 °C / 30-35 °C	kW	139 / 141	160 / 163	220 / 223	251 / 255	267 / 271	295 / 298	315 / 320	349 / 353
Input power [4] [5]	40-45 °C / 30-35 °C	kW	42,4 / 34,9	48,9 / 41,1	67,2 / 55,1	77,2 / 63,5	82,4 / 67,8	90,4 / 73,5	96,9 / 78,9	107,4 / 87,6
COP [4] [5]	40-45 °C / 30-35 °C		3,27 / 4,05	3,26 / 3,96	3,27 / 4,05	3,25 / 4,02	3,24 / 4,00	3,26 / 4,06	3,25 / 4,05	3,25 / 4,03
SCOP [3] [6]			**3,39**	**3,42**	**3,46**	**3,48**	**3,44**	**3,51**	**3,44**	**3,48**
$\eta_{s,h}$ [3] [6]			**133**	**134**	**135**	**136**	**135**	**137**	**135**	**136**
Nominal water flow (in the evaporator)		m³/h	24,0	27,7	38,1	43,5	46,3	51,2	54,7	60,5
Sound power [7]		dB(A)	79	79	82	83	83	85	86	86
Sound pressure at 10 m [8]		dB(A)	47	47	50	51	51	53	54	54
ECOi-W AQUA EVO 140-360 H HT - heat pump			**140**	**170**	**230**	**260**	**280**	**300**	**330**	**360**
Nominal cooling capacity [2]		kW	138	156	216	246	263	290	310	343
Input power [2]		kW	47,2	56,7	77,0	88,4	95,1	103,7	109,9	123,1
EER [2]			2,92	2,75	2,80	2,78	2,77	2,80	2,82	2,79
SEER / $\eta_{s,c}$ [3]			**3,68 / 144**	**3,78 / 148**	**3,8 / 149**	**3,73 / 146**	**3,78 / 148**	**4,28 / 168**	**3,95 / 155**	**4,08 / 160**
Nominal water flow (in the evaporator)		m³/h	23,7	26,9	37,1	42,3	45,4	50,0	53,3	59,1
Nominal heating capacity [4]		kW	147	169	232	266	284	310	332	367
Input power [4]		kW	47,6	54,5	75,7	87,2	92,7	101,2	109,0	119,8
COP [4]			3,09 / 3,79	3,09 / 3,73	3,07 / 3,76	3,05 / 3,73	3,06 / 3,73	3,06 / 3,76	3,04 / 3,73	3,06 / 3,74
SCOP [3] [6]			**3,55**	**3,58**	**3,56**	**3,57**	**3,53**	**3,61**	**3,55**	**3,58**
$\eta_{s,h}$ [3] [6]			**139**	**140**	**139**	**140**	**138**	**141**	**139**	**140**
Nominal water flow (in the evaporator)		m³/h	25,5	29,2	40,3	46,1	49,2	53,8	57,5	63,6
Sound power [7]		dB(A)	92	92	94	96	96	97	98	98
Sound pressure at 10 m [8]		dB(A)	60	60	62	64	64	65	66	66

1) Voltage 400 V +/- 10%. 2) According EN14511-2013: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 3) According EN14825. 4) According EN14511-2013: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 5) According EN14511-2013: warm water inlet/outlet temperature: 30/35 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 6) ErP compliant: following COMMISSION REGULATION (EU) No 813/2013. 7) Sound levels are at fully loaded conditions. Sound power values refers to ISO 3744 standard. 8) Sound pressures refer to ISO 3744 standard, parallelepiped shape.
* High efficiency units (EC) with inverter fans. ** H type units with high static pressure fans.

Technical performance

Power supply	Voltage	V	400	400	400	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50	50	50
Model		**P-**	**AQAVE0140EA**	**AQAVE0170EA**	**AQAVE0230EA**	**AQAVE0260EA**	**AQAVE0280EA**	**AQAVE0300EA**	**AQAVE0330EA**	**AQAVE0360EA**
ECOi-W AQUA EVO 140-360 E - condensing unit			**140**	**170**	**230**	**260**	**280**	**300**	**330**	**360**
Nominal cooling capacity [1]		kW	165	193	250	288	313	337	361	395
Input power [1]		kW	45,7	55,6	74,6	84,4	91,6	99,4	105	117
Sound power [2]		dB(A)	90	90	92	93	93	94	95	95
Sound pressure at 10 m [3]		dB(A)	58	58	60	61	61	62	63	63
ECOi-W AQUA EVO 140-360 E L - condensing unit			**140**	**170**	**230**	**260**	**280**	**300**	**330**	**360**
Nominal cooling capacity [1]		kW	159	186	242	279	302	326	351	381
Input power [1]		kW	46,1	56,4	75,4	84,8	92,6	100	105	118
Sound power [2]		dB(A)	85	85	87	88	88	89	90	90
Sound pressure at 10 m [3]		dB(A)	53	53	55	56	56	57	58	58
ECOi-W AQUA EVO 140-360 E S - condensing unit			**140**	**170**	**230**	**260**	**280**	**300**	**330**	**360**
Nominal cooling capacity [1]		kW	149	172	225	262	281	305	330	356
Input power [1]		kW	48,5	59,5	80,1	89,6	98,4	107	111	126
Sound power [2]		dB(A)	79	79	82	83	83	85	86	86
Sound pressure at 10 m [3]		dB(A)	47	47	50	51	51	53	54	54
ECOi-W AQUA EVO 140-360 E HT - condensing unit			**140**	**170**	**230**	**260**	**280**	**300**	**330**	**360**
Nominal cooling capacity [1]		kW	167	196	253	291	316	341	364	398
Input power [1]		kW	48	57,7	78,2	88,9	95,8	105	111	123
Sound power [2]		dB(A)	92	92	94	96	96	97	98	98
Sound pressure at 10 m [3]		dB(A)	60	60	62	64	64	65	66	66

Physical features

ECOi-W AQUA EVO 140-360 C/H - cooling only / heat pump			**140**	**170**	**230**	**260**	**280**	**300**	**330**	**360**
Dimension	H x W x L	mm	2500 x 1100 x 4000	2500 x 1100 x 4000	2500 x 2150 x 3500	2500 x 2150 x 3500	2500 x 2150 x 3500	2500 x 2150 x 4550	2500 x 2150 x 4550	2500 x 2150 x 4550
Operating weight - cooling only	STD / L	kg	1157	1200	1693	1890	1953	2227	2345	2519
	S	kg	1162	1205	1698	1895	1958	2232	2350	2524
	HT	kg	1187	1230	1743	1950	2013	2297	2425	2599
	TR	kg	1342	1386	2109	2379	2442	2834	3018	3182
Operating weight - heat pump	STD / L	kg	1312	1355	2078	2343	2458	2702	2887	3063
	S	kg	1317	1360	2083	2348	2463	2707	2892	3068
	HT	kg	1342	1385	2128	2403	2518	2772	2967	3143
Water connections										
Type of water connections (evaporator)			Male gas threaded	Male gas threaded	Male gas threaded	Male gas threaded	Male gas threaded	Male gas threaded	Male gas threaded	Male gas threaded
Water inlet/outlet diameter		Inch	2 ½	2 ½	3	3	3	3	3	3
ECOi-W AQUA EVO 140-360 E - condensing unit			**140**	**170**	**230**	**260**	**280**	**300**	**330**	**360**
Dimension	H x W x L	mm	2500 x 1100 x 4000	2500 x 1100 x 4000	2500 x 2150 x 3500	2500 x 2150 x 3500	2500 x 2150 x 3500	2500 x 2150 x 4550	2500 x 2150 x 4550	2500 x 2150 x 4550
Shipping weight		kg	1107	1150	1542	1726	1788	1946	2061	2235
Refrigerant connection										
Connection type			To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed
Inlet diameter		Inch	1 ⅝	1 ⅝	1 ⅝ - 2 ⅛	1 ⅝ - 2 ⅛	1 ⅝ - 2 ⅛	2 ⅛	2 ⅛	2 ⅛
Outlet diameter		Inch	⅞	⅞	⅞ - 1 ⅛	⅞ - 1 ⅛	⅞ - 1 ⅛	1 ⅛	1 ⅛	1 ⅛

1) Data refers to 7 °C leaving chilled water temperature and 35 °C condenser air temperature. 2) Sound levels are at fully loaded conditions. Sound power values refers to ISO 3744 standard. 3) Sound pressures refer to ISO 3744 standard, parallelepiped shape.

ECOi-W AQUA EVO 400-800 C/H · R410A

Air cooled chillers and heat pumps.

Cooling capacity: 398,8 to 797,9 kW.
Heating capacity: 404 to 807,3 kW.

The range at a glance

- 2 versions: C (cooling only) and H (heat pump)
- 8 sizes (C type) / 9 sizes (H type)
- 3 configurations: STD (standard), HT (high temperature fan) and HPF (high pressure fan)
- 2 fan types: AC (standard fan) and EC (high efficiency fan)
- 2 acoustic options: STD (standard) and S (super low noise)

Advantages

- High seasonal performances: SEER up to 4,6
- Low sound emission and high efficiency level in a single unit: Super Low Noise version
- Electronic expansion device: excellent control of superheating for the best performance at full and partial load and for a safe operation
- E-coated microchannel coils: Significant reduction on refrigerant charge and operating weight and excellent anticorrosion protection with the standard delivery
- Compressor box: remarkable sound reduction even for the basic noise version
- Control platform: modular architecture, compressor envelope integration, corrective actions in border line areas, easy-friendly user interface

Operating limits

To be confirmed with AC SELECT:
https://acselect.panasonic.eu/

ECOi-W AQUA EVO 400-800 C - cooling only				
Chilled liquid	Liquid outlet temperature	Water	°C	From 5 to 18
		Water with glycol*	°C	From -10 to 5
		ΔT	K	From 3 to 7
	Maximum operating pressure		bar	6
Outdoor air temperature	Air entering temperature cooling	STD	°C	From 10 to 48
		S / EC / EC S	°C	From -18 to 48
		HT	°C	From -18 to 52
External static pressure	Standard fans		Pa	0
	High pressure fan (HPF)		Pa	<120
ECOi-W AQUA EVO 400-800 H - heat pump				
Chilled liquid	Liquid outlet temperature	Water	°C	From 5 to 18
		Water with glycol	°C	From -3 to 5
		ΔT	K	From 3 to 7
Outdoor air temperature	Air entering temperature cooling	STD	°C	From 10 to 46
		S / EC / EC S	°C	From -18 to 46
Warm liquid	Liquid outlet temperature	Water	°C	From 25 to 55
		ΔT	K	From 3 to 7
Outdoor air temperature	Air entering temperature heating	STD	°C	From -10 to 20
		S / EC / EC S	°C	From -10 to 35
		HT	°C	From -13 to 35
External static pressure	Standard fans		Pa	0
	High pressure fan (HPF)		Pa	<120

* For liquid outlet temperature <-3 °C provide Brine version.

Equipment

- Brine version: Cooling only for process application LWT -10 °C
- Polar version: heat pump for extreme conditions
- Plate evaporator
- Electronic expansion valve
- Modbus RS485 (standard fro sizes 400-670)
- Microchannel coils
- E-coating coil treatment as standard
- Compressor acoustic box
- Compressor jackets (standard as super low noise)
- Fan speed control (standard as super low noise)
- Phase sequence control
- Water differential pressure switch

AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical performance

Power supply [1]	Voltage	V	400	400	400	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50	50	50
Model		**P-**	**AQAVE0400CA**	**AQAVE0450CA**	**AQAVE0490CA**	**AQAVE0530CA**	**AQAVE0600CA**	**AQAVE0670CA**	**AQAVE0750CA**	**AQAVE0800CA**
ECOi-W AQUA EVO 400-800 C - cooling only			**400**	**450**	**490**	**530**	**600**	**670**	**750**	**800**
Nominal cooling capacity [2]		kW	398,8	446,1	487,7	533,9	597,1	667,3	748,3	797,9
Input power [2]		kW	128,6	142,8	157,1	172,1	192,1	215,0	241,7	257,4
EER [2]			3,10	3,12	3,10	3,10	3,11	3,10	3,10	3,10
EER EC [2]			3,18	3,21	3,19	3,18	3,19	3,18	3,17	3,17
SEER [3] [4]			**4,48**	**4,43**	**4,50**	**4,38**	**4,58**	**4,65**	**4,48**	**4,50**
$\eta_{s,c}$ [3] [4]			**176**	**174***	**177***	**172***	**180**	**183**	**176***	**177***
SEER EC [3] [4]			**4,65**	**4,58**	**4,68**	**4,55**	**4,78**	**4,85**	**4,65**	**4,68**
hsc EC [3] [4]			**183**	**180**	**184**	**179**	**188**	**191**	**183**	**184**
Nominal water flow (in the evaporator)		m^3/h	68,6	76,8	84,0	91,9	103	115	129	138
Sound power [5]		dB(A)	92	93	93	94	94	94	95	95
Sound pressure at 10 m [6]		dB(A)	60	61	60	61	61	61	62	62
ECOi-W AQUA EVO 400-800 C S - cooling only			**400**	**450**	**490**	**530**	**600**	**670**	**750**	**800**
Nominal cooling capacity [2]		kW	396,0	440,4	480,4	524,8	585,3	651,7	743,4	792,2
Input power [2]		kW	127,2	141,4	156,0	171,4	192,0	215,6	238,6	254,6
EER [2]			3,11	3,11	3,08	3,06	3,05	3,02	3,12	3,11
EER EC [2]			3,20	3,21	3,17	3,15	3,13	3,10	3,20	3,19
SEER [3] [4]			**4,50**	**4,63**	**4,58**	**4,78**	**4,80**	**4,73**	**4,73**	**4,70**
$\eta_{s,c}$ [3] [4]			**177**	**182**	**180**	**188**	**189**	**186**	**186**	**185**
SEER EC [3] [4]			**4,68**	**4,80**	**4,73**	**5,05**	**5,05**	**4,93**	**4,93**	**4,90**
hsc EC [3] [4]			**184**	**189**	**186**	**199**	**199**	**194**	**194**	**193**
Nominal water flow (in the evaporator)		m^3/h	68,1	75,8	82,7	90,4	101	112	128	137
Sound power [5]		dB(A)	86	87	87	87	88	88	89	89
Sound pressure at 10 m [6]		dB(A)	54	54	54	54	55	55	56	56
ECOi-W AQUA EVO 400-800 C HT - cooling only			**400**	**450**	**490**	**530**	**600**	**670**	**750**	**800**
Nominal cooling capacity [2]		kW	411,2	455,8	497,3	543,1	607,2	678,7	768,3	820,5
Input power [2]		kW	123,4	138,4	152,2	167,3	186,4	208,9	234,2	249,2
EER [2]			3,33	3,29	3,27	3,25	3,26	3,25	3,28	3,29
SEER [3] [4]			**4,78**	**4,83**	**4,80**	**4,83**	**4,85**	**4,85**	**4,70**	**4,63**
$\eta_{s,c}$ [3] [4]			**188**	**190**	**189**	**190**	**191**	**191**	**185**	**182**
Nominal water flow (in the evaporator)		m^3/h	70,8	78,5	85,7	93,6	105	117	132	142
Sound power [5]		dB(A)	93	93	94	94	94	95	96	96
Sound pressure at 10 m [6]		dB(A)	60	61	60	61	61	61	62	62

1) Voltage 400 V +/- 10%. 2) According EN14511-2013: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 3) ErP compliant: following COMMISSION REGULATION (EU) 2016/2281. 4) According EN14825. 5) Sound powers is declared in nominal full load condition (cooling operation), referring to ISO standard 9614, in accordance with Eurovent certification program. 6) Sound pressure refer to ISO Standard 3744, parallelepiped shape in a free field on a reflective surface. 7) According EN14511-2013: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB.
* Non ErP compliant: following COMMISSION REGULATION (EU) 2016/2281.

Accessories and options
Anti-vibration spring dampers
Automatic circuit breaker
BMS interface
Coils treatments
Desuperheater
Fan speed control (-14 °C in cooling mode – standard as super low noise version)
Hydrokit with 1 or 2 pumps with or without buffer tank (500 l 400-450, 1000 l 470-670)

Accessories and options
Mechanical gauges
Overload protection for compressors
Power factor corrector capacitors
Soft starter
SRC - mini BMS controller
Unit protection grilles
Water filter
Water flow switch

ErP | HIGH SEER 4,90 | HIGH SCOP 3,99 | AIR COOLED | SCROLL COMPRESSOR | VERY HIGH PERFORMANCE

ErP: Check ErP compliance according to the configurations in AC SLECT: https://acselect.panasonic.eu/.

Technical performance

Power supply [1]	Voltage	V	400	400	400	400	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50	50	50	50
Model		**P-**	**AQAVE0400HA**	**AQAVE0450HA**	**AQAVE0490HA**	**AQAVE0530HA**	**AQAVE0580HA**	**AQAVE0620HA**	**AQAVE0670HA**	**AQAVE0750HA**	**AQAVE0800HA**
ECOi-W AQUA EVO 400-800 H - heat pump			**400**	**450**	**490**	**530**	**580**	**620**	**670**	**750**	**800**
Nominal cooling capacity [2]		kW	373,5	419,2	454,5	489,7	535,7	581,5	625,4	701,4	748,1
Input power [2]		kW	132,3	147,8	160,9	173,0	190,2	206,1	221,5	247,4	263,8
EER [2]			2,82	2,84	2,82	2,83	2,82	2,82	2,82	2,84	2,84
EER EC [2]			2,90	2,91	2,90	2,90	2,90	2,90	2,90	2,91	2,91
SEER [3]			**4,65**	**4,53**	**4,7**	**4,55**	**4,33**	**4,35**	**4,3**	**4,3**	**4,35**
$\eta_{s,c}$ [3]			**183**	**178**	**185**	**179**	**170***	**171***	**169***	**169***	**171***
SEER EC [3]			**4,93**	**4,83**	**4,97**	**4,88**	**4,5**	**4,5**	**4,45**	**4,45**	**4,48**
$\eta_{s,c}$ EC [3]			**194**	**190**	**196**	**192**	**177***	**177***	**175***	**175***	**176***
Nominal water flow (in the evaporator)		m³/h	64,3	72,1	78,2	84,3	92,2	100	108	121	129
Nominal heating capacity [4]		kW	404,0	450,9	492,7	532,1	585,8	627,7	677,8	758,3	807,3
Input power [4]		kW	125,9	140,8	153,8	166,3	183,0	195,5	212,0	237,0	252,3
COP [4]			3,21	3,20	3,20	3,20	3,20	3,21	3,20	3,20	3,20
COP [5]			3,88	3,82	3,85	3,87	3,85	3,88	3,85	3,9	3,87
COP EC [4]			3,30	3,29	3,29	3,29	3,29	3,31	3,29	3,29	3,29
COP EC [5]			4,0	3,94	3,98	4,0	3,98	4,01	3,98	4,03	4,0
SCOP [3]			**3,46**	**3,47**	**3,37**	**3,38**	**—**	**—**	**—**	**—**	**—**
$\eta_{s,h}$ [3]			**135**	**136**	**132**	**132**	**—**	**—**	**—**	**—**	**—**
SCOP EC [3]			**3,62**	**3,62**	**3,53**	**3,53**	**—**	**—**	**—**	**—**	**—**
$\eta_{s,h}$ EC [3]			**142**	**142**	**138**	**138**	**—**	**—**	**—**	**—**	**—**
Nominal water flow (in the evaporator)		m³/h	70,1	78,3	85,5	92,3	102	109	118	131	140
Sound power [6]		dB(A)	92	93	93	94	94	95	95	95	95
Sound pressure at 10 m [7]		dB(A)	60	61	60	61	61	62	62	62	62
ECOi-W AQUA EVO 400-800 H S - heat pump			**400**	**450**	**490**	**530**	**580**	**620**	**670**	**750**	**800**
Nominal cooling capacity [2]		kW	371,2	417,3	453,4	487,3	531,4	578,6	621,5	701,5	743,2
Input power [2]		kW	128,1	143,6	156,5	167,6	183,3	199,0	214,1	241,4	256,6
EER [2]			2,90	2,91	2,90	2,91	2,90	2,91	2,90	2,91	2,90
EER EC [2]			2,98	2,99	2,98	2,99	2,98	2,99	2,99	2,99	2,98
SEER [3]			**5,03**	**4,53**	**5,1**	**5,05**	**4,6**	**4,6**	**4,55**	**4,55**	**4,58**
$\eta_{s,c}$ [3]			**198**	**178**	**201**	**199**	**181**	**181**	**179**	**179**	**180**
SEER EC [3]			**5,35**	**5,33**	**5,45**	**5,48**	**4,75**	**4,73**	**4,7**	**4,65**	**4,65**
$\eta_{s,c}$ EC [3]			**211**	**210**	**215**	**216**	**187**	**186**	**185**	**183**	**183**
Nominal water flow (in the evaporator)		m³/h	63,9	71,8	78,0	83,9	91,5	99,6	107	121	128
Nominal heating capacity [4]		kW	403,6	451,7	490,3	531,2	585,6	627,1	676,7	757,4	805,3
Input power [4]		kW	124,3	138,2	152,2	165,9	182,9	193,2	209,6	234,0	247,7
COP [4]			3,25	3,27	3,22	3,20	3,20	3,25	3,23	3,24	3,25
COP [5]			4,01	3,97	3,97	3,98	3,96	4,01	3,97	4,04	4,01
COP EC [4]			3,34	3,37	3,32	3,29	3,30	3,34	3,32	3,34	3,35
COP EC [5]			4,16	4,11	4,11	4,12	4,11	4,16	4,11	4,19	4,15
SCOP [3]			**3,76**	**3,76**	**3,69**	**3,68**	**—**	**—**	**—**	**—**	**—**
$\eta_{s,h}$ [3]			**147**	**147**	**145**	**144**	**—**	**—**	**—**	**—**	**—**
SCOP EC [3]			**3,99**	**3,98**	**3,91**	**3,89**	**—**	**—**	**—**	**—**	**—**
$\eta_{s,h}$ EC [3]			**157**	**156**	**153**	**153**	**—**	**—**	**—**	**—**	**—**
Nominal water flow (in the evaporator)		m³/h	70,0	78,4	85,1	92,2	102	109	117	132	140
Sound power [6]		dB(A)	86	87	87	87	88	88	88	89	89
Sound pressure at 10 m [7]		dB(A)	53	54	54	54	55	55	55	56	56

1) Voltage 400 V +/- 10%. 2) According EN14511-2013: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 3) According EN14825. 4) According EN14511-2013: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 5) According EN14511-2013: warm water inlet/outlet temperature: 30/35 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 6) Sound power is declared in nominal full load condition (cooling operation), referring to ISO standard 9614, in accordance with Eurovent certification program. 7) Sound pressure refer to ISO Standard 3744, parallelepiped shape in a free field on a reflective surface. 8) ErP compliant: following COMMISSION REGULATION (EU) 2016/2281. * Non ErP compliant: following COMMISSION REGULATION (EU) 2016/2281.

Physical features

ECOi-W AQUA EVO 400-800 C - cooling only			400	450	490	530	600	670	750	800
Dimension	H x W	mm	2500 x 2175	2500 x 2175	2500 x 2175	2500 x 2175	2500 x 2175	2500 x 2175	2500 x 2175	2500 x 2175
	Length STD / EC / HPF / TR	mm	4580	5620	6680	6680	7760	7760	8900	8900
	Length S / EC S / HT	mm	5620	6680	7760	7760	8800	8800	11000	11000
Operating weight	STD / EC / HPF	kg	3028	3367	3783	4069	4317	4524	5536	5607
	S / EC S / HT	kg	3318	3656	4069	4369	4597	4789	6111	6183
	TR	kg	3409	3763	4198	4498	4832	5100	6264	6365
Water connections (evaporator and condenser)										
Type of water connections			Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Water inlet/outlet diameter		Inch	4	4	4	4	4	5	6	6

ECOi-W AQUA EVO 400-800 H - heat pump			400	450	490	530	580	620	670	750	800
Dimension	H x W	mm	2500 x 2175	2500 x 2175	2500 x 2175	2500 x 2175	2500 x 2175	2500 x 2175	2500 x 2175	2500 x 2175	2500 x 2175
	Length STD / EC / HPF	mm	5620	5620	6680	6680	7760	8800	8800	9950	9950
	Length S / EC S	mm	6680	6680	7760	7760	8800	9850	9850	12050	12050
Operating weight	STD / EC / HPF	kg	3769	3938	4412	4744	5214	5554	5691	6790	6985
	S / EC S	kg	4131	4293	4764	5101	5567	5919	6059	7497	7683
Water connections (evaporator)											
Type of water connections			Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Water inlet/outlet diameter		Inch	4	4	4	4	4	5	5	6	6

ECOi-W SW-N EVO 380-1260 C · R513A

Air cooled chillers.

Cooling capacity: 366 to 1240,5 kW.

The range at a glance

· 1 version: C (cooling only)
· 12 sizes
· 2 configurations: STD (standard) and HT (high temperature)
· 1 fan type: EC (high efficiency fan)
· 2 acoustic options: STD (standard) and S (super low noise)

Advantages

· High seasonal efficiency level exceeding ErP 2021 requirements
· High durability painting process for casing and frame, offering C4 corrosion category in accordance with ISO 12944
· Compressor metal box, providing basic acoustic protection and resistance to atmospheric agents
· Side panel on coil ends, protecting from corrosion and damage
· EC fan motors, improving part load efficiency, extending envelope operation and reducing noise level in part load operation
· Proprietary software logic, optimizing unit efficiency in accordance with plant needs and protecting unit operation with preventing actions

Operating limits

To be confirmed with AC SELECT:
https://acselect.panasonic.eu/

ECOi-W SW-N EVO 380-1260 C - cooling only			
Leaving water temperature	Water	°C	From 5 to 15
	Water with glycol	°C	From 0 to 5
	Brine	°C	From -8 to 0
	ΔT	K	From 3 to 8
Outdoor air temperature	STD	°C	From -10 to 46
	S	°C	From -10 to 44
	HT	°C	From -10 to 49
	Minimum air temperature	°C	-10
External static pressure	Standard fans	Pa	0
	High pressure fans	Pa	< 120

Equipment

· 2 refrigerant circuits
· 2 screw compressors
· Pure countercurrent shell and tubes direct expansion heat exchanger
· Axial type EC fan motors
· Micro-channels condensers
· Electronic expansion valve
· Hydronic / heat recovery options

Accessories and options
Antifreeze electric heater for hydraulic manifolds
BMS interface
Chiller grilles
Compressor acoustic box
Compressor star delta start
Compressor suction valve
E-coating treatment
Finned tubes (Al/Cu)

Accessories and options
Flow switch
Hydro kit 1P-SP/1P-HP/2P-SP/2PHP
Mechanical gauges kit (HP and LP manometers)
NetTune (managing a network of up to 6 units)
Power factor corrector capacitors
Anti-vibration spring dampers
Variable pump
Water filter

AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical performance

Model P-SWVN****CA			0380	0440	0510	0590	0660	0730	0810	0900	0980	1060	1160	1260
ECOi-W SW-N EVO 380-1260 C STD / HT / HP - cooling only			**380**	**440**	**510**	**590**	**660**	**730**	**810**	**900**	**980**	**1060**	**1160**	**1260**
Nominal cooling capacity [1]		kW	365,7	443,0	500,2	565,8	643,5	704,3	778,1	896,9	983,5	1047,4	1154,0	1240,5
Input power [1]		kW	123,9	142,9	165,6	181,1	206,2	228,6	253,4	290,2	322,3	332,0	370,4	408,1
EER [1]			2,95	3,10	3,02	3,12	3,12	3,08	3,07	3,09	3,05	3,15	3,12	3,04
EER $_{CONDITION\ B}$ (74%)			3,95	4,01	3,99	4,02	3,93	3,95	3,89	3,82	3,98	4,10	4,14	4,20
EER $_{CONDITION\ C}$ (47%)			4,66	4,81	4,81	5,03	4,76	4,66	4,72	4,68	4,72	5,10	5,06	5,02
EER $_{CONDITION\ D}$ (21%)			6,14	6,31	6,33	6,65	6,62	6,23	6,62	6,32	6,22	6,69	6,70	6,68
SEER [2] [3]			**4,53**	**4,66**	**4,65**	**4,80**	**4,66**	**4,56**	**4,62**	**4,56**	**4,60**	**4,87**	**4,86**	**4,85**
$\eta_{s,c}$ [2] [3]		**%**	**178**	**183**	**183**	**189**	**183**	**179**	**182**	**179**	**181**	**192**	**191**	**191**
Number of refrigerant circuits			2	2	2	2	2	2	2	2	2	2	2	2
Total capacity steps [4]		%	22% ÷ 100%	18% ÷ 100%	16% ÷ 100%	14% ÷ 100%	13% ÷ 100%	15% ÷ 100%	13% ÷ 100%	14% ÷ 100%	13% ÷ 100%	17% ÷ 100%	15% ÷ 100%	14% ÷ 100%
Sound power [5]		dB(A)	97	98	100	100	100	101	101	102	102	103	103	103
Sound power [5] **/***		dB(A)	102	103	104	104	104	105	105	106	106	107	108	108
Sound pressure at 10 m [6]		dB(A)	65	66	68	68	68	68	68	69	69	70	70	70
Sound pressure at 10 m [6] **/***		dB(A)	70	71	72	72	72	72	72	73	73	74	75	75
ECOi-W SW-N EVO 380-1260 C S - cooling only			**380**	**440**	**510**	**590**	**660**	**730**	**810**	**900**	**980**	**1060**	**1160**	**1260**
Nominal cooling capacity [1]		kW	362,8	441,8	498,2	563,1	640,0	702,5	775,9	893,1	980,9	1045,5	1150,6	1234,8
Input power [1]		kW	126,1	144,9	168,0	184,0	209,3	231,5	256,4	294,7	326,4	335,5	375,0	416,8
EER [1]			2,88	3,05	2,97	3,06	3,06	3,03	3,03	3,03	3,01	3,12	3,07	2,96
EER $_{CONDITION\ B}$ (74%)			3,90	4,03	3,99	4,00	3,96	3,97	4,01	3,84	4,18	4,15	4,22	4,31
EER $_{CONDITION\ C}$ (47%)			4,69	5,04	5,05	5,21	4,95	4,91	4,98	4,94	5,02	5,24	5,36	5,30
EER $_{CONDITION\ D}$ (21%)			6,44	6,82	6,75	6,92	6,93	6,64	6,71	6,60	6,55	7,00	7,24	7,04
SEER [2] [3]			**4,56**	**4,82**	**4,79**	**4,89**	**4,78**	**4,73**	**4,77**	**4,69**	**4,82**	**4,98**	**5,07**	**5,03**
$\eta_{s,c}$ [2] [3]		**%**	**180**	**190**	**189**	**193**	**188**	**186**	**188**	**185**	**190**	**196**	**200**	**198**
Number of refrigerant circuits			2	2	2	2	2	2	2	2	2	2	2	2
Total capacity steps [4]		%	22% ÷ 100%	18% ÷ 100%	16% ÷ 100%	14% ÷ 100%	13% ÷ 100%	15% ÷ 100%	13% ÷ 100%	14% ÷ 100%	13% ÷ 100%	17% ÷ 100%	15% ÷ 100%	14% ÷ 100%
Sound power [5]		dB(A)	94	94	97	97	97	98	98	99	99	99	100	100
Sound pressure at 10 m [6]		dB(A)	62	62	65	65	65	65	65	66	66	66	67	67

Physical features

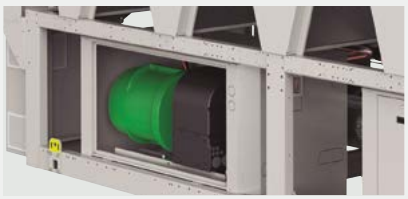
ECOi-W SW-N EVO 380-1260 C - cooling only			**380**	**440**	**510**	**590**	**660**	**730**	**810**	**900**	**980**	**1060**	**1160**	**1260**
Dimension	Height	mm	2.510	2.510	2.510	2.510	2.510	2.510	2.510	2.510	2.510	2.510	2.510	2.510
	Height S	mm	2.590	2.590	2.590	2.590	2.590	2.590	2.590	2.590	2.590	2.590	2.590	2.590
	Width	mm	2.192	2.192	2.192	2.192	2.192	2.192	2.192	2.192	2.192	2.192	2.192	2.192
	Length	mm	4.660	5.712	5.712	6.764	7.816	7.816	8.868	9.920	10.972	12024	13.076	13.076
Operating weight	STD / HT / HP	kg	3.896	4.259	4.897	5.241	5.620	6.207	6.531	7.326	7.764	8.491	8.875	9.074
	S	kg	3.981	4.352	4.990	5.323	5.702	6.293	6.617	7.412	7.852	8.579	8.963	9.162

1) Data refers to 7 °C leaving chilled water temperature and 35 °C condenser air temperature, according EN14511-2013 standard. 2) ErP compliant: following COMMISSION REGULATION (EU) 2016/2281. 3) According EN14825. 4) This value can change for BC version or other special applications. 5) Sound levels are at fully loaded conditions. Sound power values refer to ISO standard 3744. 6) Sound pressures refer to ISO Standard 3744, parallelepiped shape.
* High temperature units (HT), data with fans at maximum speed (1100 r.p.m.). ** HP units, data with fans at maximum speed (1100 r.p.m.).

Technological innovation.

All-round variable volume flow management.

Refrigerant.
Inverter driven compressor technology and electronic expansion valve.



Air.
EC brushless fan motor technology.

Water.
Inverter driven pump technology.

Improved part load efficiency.
Continuous capacity control.
Flexible offer in plant integration.

ErP | HIGH SEER 5,07 | INVERTER | AIR COOLED | SHELL AND TUBE EVAPORATOR | SCREW COMPRESSOR | SUPER QUIET | VERY HIGH PERFORMANCE

Specifications subject to change without notice. For detailed information about ErP / Energy Labelling, please visit our websites www.aircon.panasonic.eu or www.ptc.panasonic.eu.

ECOi-W

Water cooled chillers, heat pumps and condenserless units

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Water cooled chillers, heat pumps and condenserless units

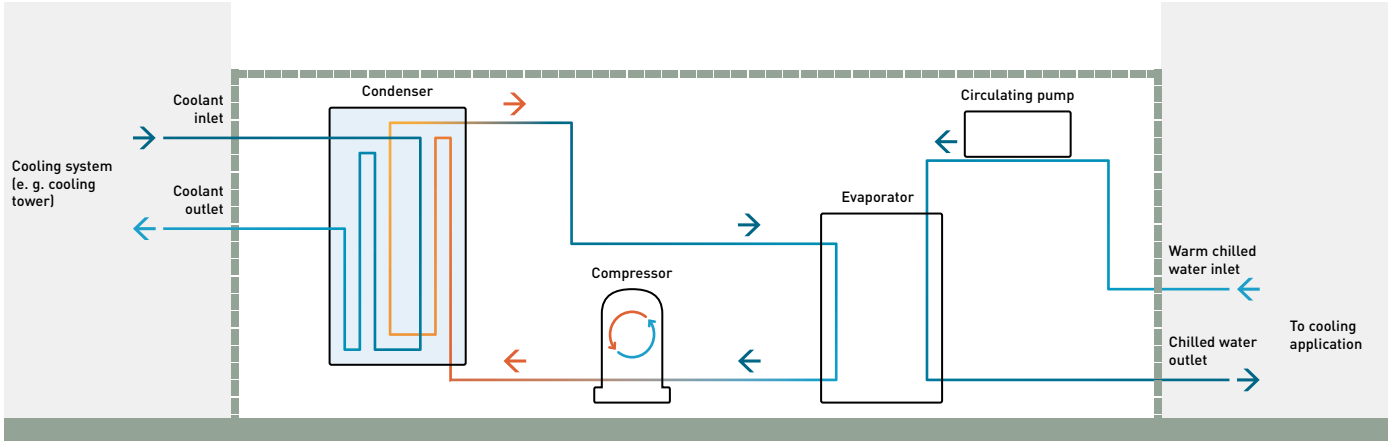
Quality and comfort for all your projects! Perfect for any type of building, the system consists of water cooled chillers or heat pumps that provide cold or hot water to water terminals. This system is particularly well suited for applications such as office buildings, hotels, shopping centers and hospitals.

Water cooled chillers use water as the cooling medium to extract heat from the cooling circuit by cooling and condensing the refrigerant.

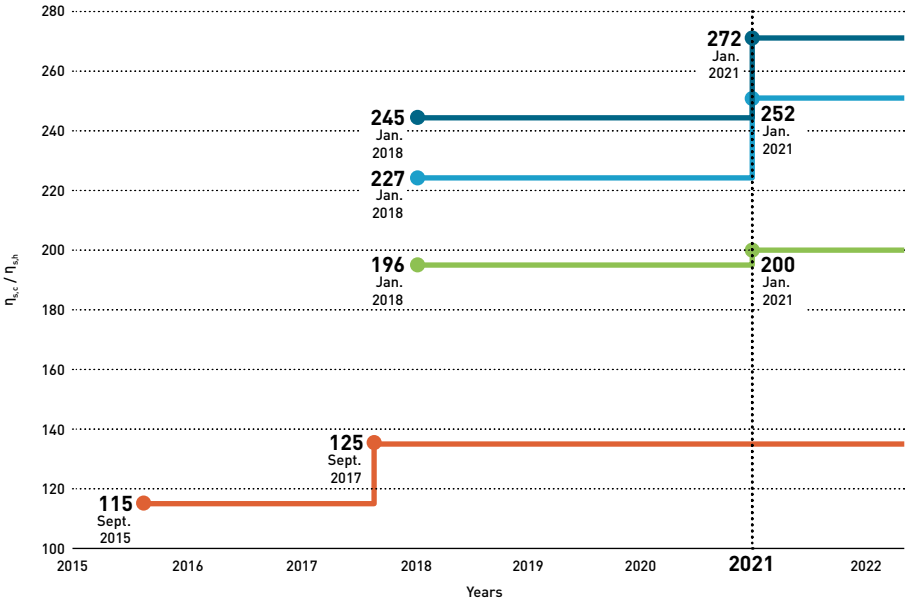
Advantages:

· Higher cooling efficiency compared to air cooled chillers
· Less impact on the environment with less waste heat or fan noise

* The below illustration show cooling application.



Ecodesign



Water to water comfort cooling only [1].

≤400 kW. Minimum $\eta_{s,c}$ to be Ecodesign compliant. COMMISSION REGULATION (EU) 2016/2281.	>400 kW and ≤1500 kW. Minimum $\eta_{s,c}$ to be Ecodesign compliant. COMMISSION REGULATION (EU) 2016/2281.	>1500 kW. Minimum $\eta_{s,c}$ to be Ecodesign compliant. COMMISSION REGULATION (EU) 2016/2281.

Water to water heat pumps [2].

≤400 kW. Minimum $\eta_{s,h}$ to be Ecodesign compliant. COMMISSION REGULATION (EU) No813/2013.	>400 kW and ≤1500 kW. Minimum $\eta_{s,h}$ to be Ecodesign compliant. COMMISSION REGULATION (EU) 2016/2281.	>1500 kW. Minimum $\eta_{s,h}$ to be Ecodesign compliant. COMMISSION REGULATION (EU) 2016/2281.

1) Calculated at nominal conditions: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 30/35 °C DB.
2) Rated heat output of space heaters and combination heaters at reference design conditions (Tdesign -10 °C) as stated in COMMISSION REGULATION (EU) No 813/2013.

Quick selection guide - Water cooled chillers

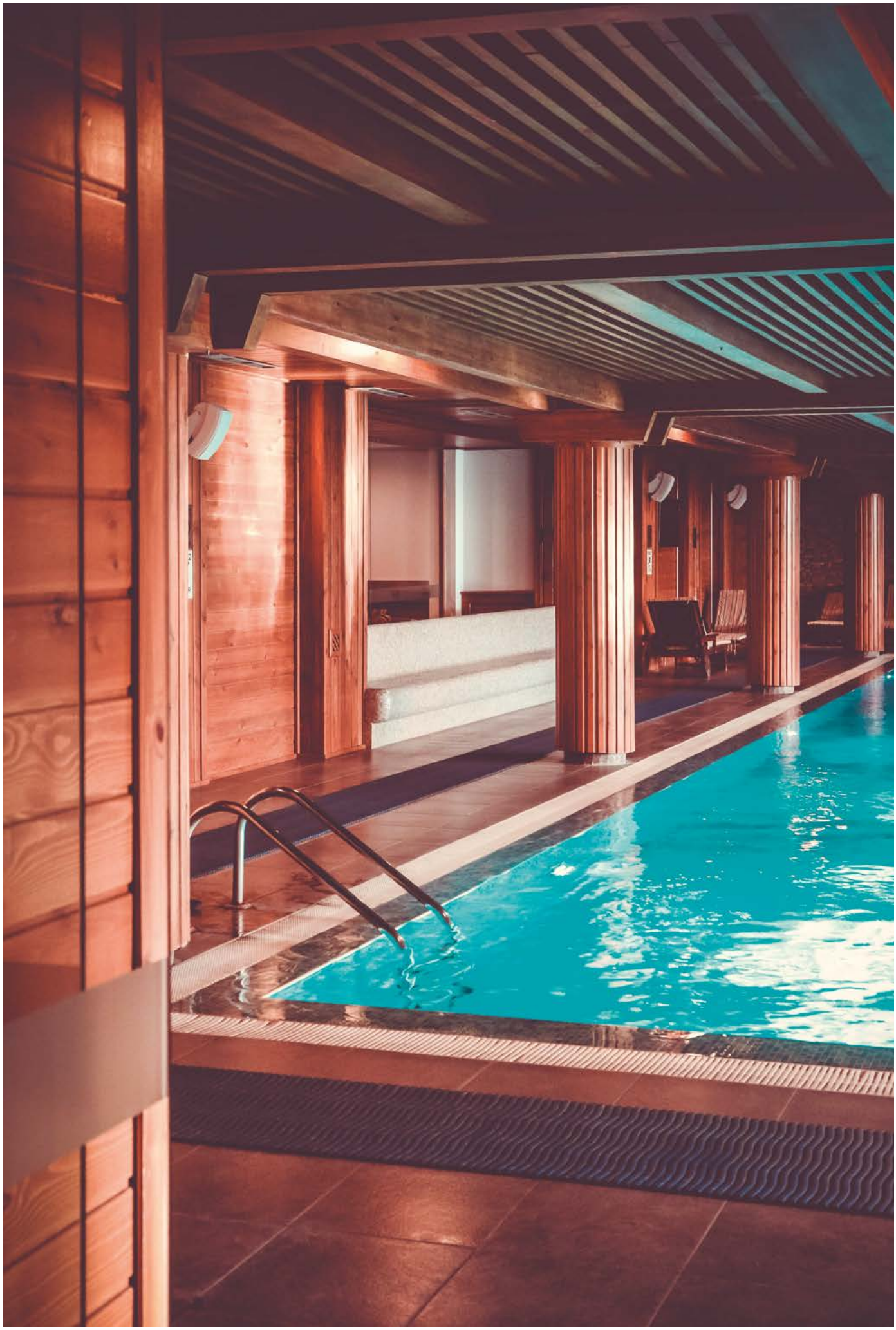
Page		Size	Cooling capacity	SEER	Water flow (m³/h)	Sound power (dB(A))	Dimensions (mm)
ECOi-W WQ C		20	21,2	**5,58**	3,67	65	821 x 1350 x 455
		25	26,2	**5,60**	4,54	67	821 x 1350 x 455
		30	31,1	**5,45**	5,40	67	821 x 1350 x 455
P. 66		35	34,8	**5,50**	6,05	68	821 x 1350 x 455
		40	39,2	**5,35**	6,80	68	821 x 1350 x 455
		45	46,6	**5,83**	8,06	70	821 x 1350 x 455
		50	50,9	**6,13**	8,78	70	1210 x 1500 x 850
		60	61,1	**6,38**	10,55	70	1210 x 1500 x 850
		75	77,3	**5,95**	13,36	72	1210 x 1500 x 850
P. 66		90	91,1	**6,70**	15,73	73	1210 x 1500 x 850
		120	118,4	**5,90**	20,45	78	1210 x 1500 x 850
		150	147,1	**6,13**	25,38	81	1210 x 1500 x 850
		170	170	**6,08**	29,34	81	1210 x 1500 x 850
		190	192,7	**6,20**	33,26	81	1210 x 1500 x 850
		524	154,3	**5,55**	26,64	81	2250 x 1845 x 850
		604	181,8	**6,28**	31,36	82	2250 x 1845 x 850
		704	208,9	**6,10**	36,04	85	2250 x 1845 x 850
		804	232,6	**5,75**	40,32	87	2250 x 1845 x 850
P. 68		904	265,8	**6,10**	45,72	89	2250 x 1845 x 850
		1004	295,6	**6,10**	50,76	90	2250 x 1845 x 850
		1104	338	**6,20**	58,32	90	2250 x 1845 x 850
		1204	379,2	**6,25**	65,52	90	2250 x 1845 x 850
		1404	421,1	**6,43**	72,36	92	2250 x 1845 x 850
		1604	459,8	**6,47**	79,20	94	2250 x 1845 x 850
ECOi-W WSW-N EVO C		440	418,6	**6,38**	72,00	95	4250 x 1650 x 1350
		490	471,6	**6,38**	81,10	95	4250 x 1650 x 1350
		570	539,3	**6,52**	92,80	95	4210 x 1650 x 1350
		630	601,9	**6,42**	103,50	95	4210 x 1650 x 1350
		700	664,4	**6,38**	114,30	95	4180 x 1650 x 1350
		770	734,6	**6,38**	126,40	95	4180 x 1650 x 1350
		860	825,0	**6,41**	141,90	98	4510 x 1710 x 1520
		920	874,1	**6,41**	150,30	98	4510 x 1710 x 1520
P. 70		990	936,6	**6,41**	161,10	98	4600 x 1710 x 1520
		1070	1019,1	**6,42**	175,30	98	4650 x 1710 x 1520
		1130	1071,8	**6,53**	184,30	98	4650 x 1710 x 1520
		1220	1159,3	**6,51**	199,40	98	4650 x 1710 x 1520
		1280	1226,1	**6,44**	210,90	98	4650 x 1710 x 1520
		1400	1334,6	**6,45**	229,50	98	5350 x 1710 x 1520
		1550	1457,9	**6,42**	250,80	98	5350 x 1710 x 1520

Quick selection guide - Water cooled heat pumps

Page	Size	Cooling and heating capacity	SEER	SCOP	Water flow (m³/h)	Sound power (dB(A))	Dimensions (mm)
ECOi-W WQ H	20	20,8 / 23,7	5,13	5,17	4,07	65	821 x 1350 x 455
	25	26,0 / 28,9	5,00	5,45	4,97	67	821 x 1350 x 455
	30	30,1 / 33,6	4,88	5,33	5,80	67	821 x 1350 x 455
P. 66	35	34,0 / 38,5	5,10	5,05	6,62	68	821 x 1350 x 455
	40	38,2 / 42,9	5,00	4,83	7,38	68	821 x 1350 x 455
	45	45,5 / 51,2	5,47	5,28	8,82	70	821 x 1350 x 455
	50	49,9 / 57,7	4,70	5,70	9,83	70	1210 x 1500 x 850
	60	58,9 / 68,2	4,88	5,88	11,63	70	1210 x 1500 x 850
	75	76,1 / 86,3	4,47	5,70	14,72	72	1210 x 1500 x 850
	90	88,6 / 102,2	4,83	5,78	17,42	73	1210 x 1500 x 850
P. 66	120	114,9 / 132	4,92	5,75	22,46	78	1210 x 1500 x 850
	150	144,3 / 164,2	4,97	5,63	28,01	81	1210 x 1500 x 850
	170	165,7 / 190,1	5,65	5,95	32,40	81	1210 x 1500 x 850
	190	185,4 / 212,3	5,10	5,63	36,18	81	1210 x 1500 x 850
	524	150,7 / 170,2	4,65	5,40	29,16	81	2250 x 1845 x 850
	604	176,2 / 201,1	4,92	5,20	34,45	82	2250 x 1845 x 850
	704	204,5 / 231,8	4,92	5,38	39,60	85	2250 x 1845 x 850
	804	225,4 / 256,5	4,68	5,35	43,92	87	2250 x 1845 x 850
	904	263,1 / 295,6	5,15	5,73	50,76	89	2250 x 1845 x 850
P. 68	1004	291,3 / 331	5,10	5,85	56,88	90	2250 x 1845 x 850
	1104	332 / 376,6	5,27	5,83	64,80	90	2250 x 1845 x 850
	1204	370,5 / 418,5	5,30	5,85	72,00	90	2250 x 1845 x 850
	1404	421,1 / 468,0	6,43	—	80,64	92	2250 x 1845 x 850
	1604	459,8 / 508,4	6,47	—	87,48	94	2250 x 1845 x 850
ECOi-W WSW-N EVO H	440	365,9 / 470,3	6,53	4,46	104,9	95	4590 x 1650 x 1450
	490	418,9 / 536,5	6,38	4,52	120,1	95	4590 x 1650 x 1450
	570	483,2 / 621,7	6,40	4,4	138,5	95	4630 x 1650 x 1450
	630	541,0 / 698,6	6,38	4,31	155,1	95	4630 x 1650 x 1450
	700	595,6 / 764,7	6,45	4,47	170,7	95	4320 x 1650 x 1450
	770	646,6 / 835,9	6,60	4,37	185,3	95	4560 x 1650 x 1450
	860	715,5 / 923,0	6,40	4,39	205,1	98	5110 x 1680 x 1520
	920	772,0 / 992,7	6,50	4,44	221,3	98	5110 x 1680 x 1520
	990	828,1 / 1063,0	6,40	4,49	237,4	98	5100 x 1680 x 1520
P. 70	1070	891,5 / 1146,0	6,40	4,45	255,6	98	5100 x 1680 x 1520
	1130	958,8 / 1231,8	6,50	4,45	274,9	98	5000 x 1680 x 1520
	1220	1023,8 / 1315,8	6,48	4,41	293,5	98	5000 x 1680 x 1520
	1280	1078,2 / 1386,1	6,48	4,37	309,1	98	5000 x 1680 x 1520
	1400	1186,9 / 1523,8	6,50	4,45	340,3	98	5300 x 1710 x 1580
	1550	1285,5 / 1654,6	6,70	4,38	368,5	98	5300 x 1710 x 1580

Quick selection guide - Water cooled condenserless units

Page	Size	Cooling and heating capacity	Water flow (m³/h)	Sound power (dB(A))	Dimensions (mm)
ECOi-W WQ R	20	**18,3**	4,07	65	821 x 1350 x 455
	25	**22,7**	4,97	67	821 x 1350 x 455
	30	**27,1**	5,80	67	821 x 1350 x 455
P. 66 	35	**30,0**	6,62	68	821 x 1350 x 455
	40	**34,2**	7,38	68	821 x 1350 x 455
	45	**43,1**	8,82	70	821 x 1350 x 455
	50	**45,0**	9,83	70	1210 x 1500 x 850
	60	**53,4**	11,63	70	1210 x 1500 x 850
	75	**67,5**	14,72	72	1210 x 1500 x 850
P. 66 	90	**80,1**	17,42	73	1210 x 1500 x 850
	120	**104,0**	22,46	78	1210 x 1500 x 850
	150	**128,0**	28,01	81	1210 x 1500 x 850
	170	**148,0**	32,40	81	1210 x 1500 x 850
	190	**168,0**	36,18	81	1210 x 1500 x 850
	524	**130,0**	29,16	81	2250 x 1845 x 850
	604	**155,3**	34,45	82	2250 x 1845 x 850
	704	**177,6**	39,60	85	2250 x 1845 x 850
P. 68 	804	**196,5**	43,92	87	2250 x 1845 x 850
	904	**224,2**	50,76	89	2250 x 1845 x 850
	1004	**247,2**	56,88	90	2250 x 1845 x 850
	1104	**285,9**	64,80	90	2250 x 1845 x 850
	1204	**316,1**	72,00	90	2250 x 1845 x 850
	1404	**368,0**	80,64	92	2250 x 1845 x 850
	1604	**397,0**	87,48	94	2250 x 1845 x 850
ECOi-W WSW-N EVO R	440	**358,6**	104,9	95	4590 x 1650 x 1450
	490	**405,3**	120,1	95	4590 x 1650 x 1450
	570	**472,7**	138,5	95	4630 x 1650 x 1450
	630	**535,6**	155,1	95	4630 x 1650 x 1450
	700	**586,2**	170,7	95	4320 x 1650 x 1450
	770	**638,1**	185,3	95	4560 x 1650 x 1450
	860	**708,9**	205,1	98	5110 x 1680 x 1520
	920	**758,1**	221,3	98	5110 x 1680 x 1520
P. 70 	990	**817,2**	237,4	98	5100 x 1680 x 1520
	1070	**886,2**	255,6	98	5100 x 1680 x 1520
	1130	**947,7**	274,9	98	5000 x 1680 x 1520
	1220	**1015,0**	293,5	98	5000 x 1680 x 1520
	1280	**1075,9**	309,1	98	5000 x 1680 x 1520
	1400	**1181,4**	340,3	98	5300 x 1710 x 1580
	1550	**1277,8**	368,5	98	5300 x 1710 x 1580



ECOi-W WQ 20-190 C/H/R · R410A

Water cooled chillers, heat pumps and condenserless units.

Cooling capacity: 21,2 to 192,7 kW.
Heating capacity: 23,7 to 212,3 kW.

The range at a glance

- 3 versions: C (cooling only), H (heat pump) and R (condenserless unit)
- 14 sizes
- 2 acoustic options: STD (standard) and S (super low noise)
- 2 frames: F1 (size from 20 to 45) and F2 (size from 50 to 190)

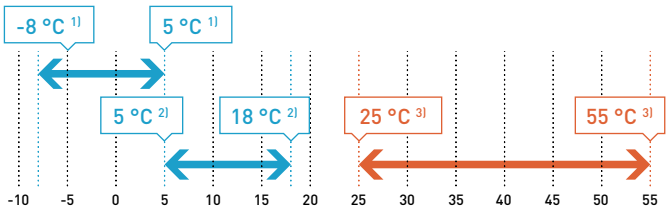
Advantages

- High full load efficiency: EER up to 4,50, COP up to 3,90
- High seasonal performances: SEER up to 6,70
- Compressor box: remarkable sound reduction
- Reduced refrigerant charge: less than 10 kg per circuit for units up to size 90
- Advanced electronic controller: auto-adaptive function to reduce water content in the piping system
- Condensing pressure control option suitable for well application
- Wide range of Plug & Play hydrokit: easy hydraulic installation
- DHW function available on the controller with DHW probe and 3 way valve available as options
- Desuperheater heat exchanger available as option (50-190 sizes)

Operating limits

To be confirmed with AC SELECT:
https://acselect.panasonic.eu/

Leaving water temperature.



1) With glycol + EEV.
2) Without glycol + EEV.
3) Only C/H types 20-190.
Note: maximum % glycol (ethylenic or propilenic): 40%.

Equipment

- 1 refrigerant circuit
- 1 or 2 scroll compressors
- Plate evaporator (AISI 316)
- Compressor acoustic box (standard on S)
- Differential pressure switch
- Electronic expansion valve (standard C type 170-190)
- Phase sequence control

ECOi-W WQ 20-190 C/H/R				
Cooling	Leaving water temperature	ΔT	°C	From 3 to 8
Heating 1)	Leaving water temperature	ΔT	°C	From 3 to 15

1) Only C/H types 20-190.

Accessories and options
BMS interface
Compressor jackets
Desuperheater available for frame 2
Hydrokit with 1 or 2 pumps for evaporator and condenser
Mechanical gauges kit

Accessories and options
Power factor corrector capacitors
Soft starter
Water filter
Water flow switch

AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical performance

Power supply	Voltage	V	400	400	400	400	400	400	400	400	400	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Size			**20**	**25**	**30**	**35**	**40**	**45**	**50**	**60**	**75**	**90**	**120**	**150**	**170**	**190**
ECOi-W WQ 20-190 C - cooling only	**P-WQE****CA**		**0020**	**0025**	**0030**	**0035**	**0040**	**0045**	**0050**	**0060**	**0075**	**0090**	**0120**	**0150**	**0170**	**0190**
Cooling capacity [1]		kW	21,2	26,2	31,1	34,8	39,2	46,6	50,9	61,1	77,3	91,1	118,4	147,1	170,0	192,7
Input power [1]		kW	4,56	5,67	6,84	7,54	8,60	10,1	11,7	13,5	17,1	20,7	26,5	33,0	37,7	42,8
EER [1]			4,67	4,65	4,57	4,64	4,58	4,65	4,35	4,53	4,52	4,40	4,48	4,47	4,51	4,51
SEER [2] [3]			**5,58**	**5,6**	**5,45**	**5,5**	**5,35**	**5,83**	**6,13**	**6,38**	**5,95**	**6,7**	**5,90**	**6,13**	**6,08**	**6,2**
$\eta_{s,c}$ [2] [3]			**220**	**221**	**215**	**217**	**211**	**230**	**242**	**252**	**235**	**265**	**233**	**242**	**240**	**245**
Sound power (STD / S) [4]		dB(A)	65/62	67 / 64	67 / 64	68 / 65	68 / 66	70 / 67	70 / 68	70 / 68	72 / 70	73 / 71	78 / 76	81 / 79	81 / 79	81 / 79
Sound pressure at 10 m (STD / S) [5]		dB(A)	34/31	36 / 33	36 / 33	37 / 34	38 / 35	39 / 36	39 / 37	39 / 37	40 / 39	42 / 40	47 / 45	50 / 48	50 / 48	50 / 48
ECOi-W WQ 20-190 H - heat pump	**P-WQE****HA**		**0020**	**0025**	**0030**	**0035**	**0040**	**0045**	**0050**	**0060**	**0075**	**0090**	**0120**	**0150**	**0170**	**0190**
Cooling capacity [1]		kW	20,8	26,1	30,2	34,1	38,3	45,7	49,9	58,9	76,1	88,6	114,9	144,3	165,7	185,4
Input power [1]		kW	4,61	5,71	6,90	7,68	8,69	10,2	12,0	13,9	17,5	21,1	27,0	33,3	38,2	43,3
EER [1]			4,52	4,56	4,37	4,44	4,41	4,46	4,23	4,31	4,42	4,25	4,31	4,36	4,37	4,30
SEER [2]			**5,13**	**5**	**4,88**	**5,1**	**5**	**5,48**	**4,7**	**4,88**	**4,47**	**4,83**	**4,92**	**4,97**	**5,65**	**5,1**
$\eta_{s,c}$ [2]			**202**	**197**	**192**	**201**	**197**	**216**	**185**	**192**	**176**	**190**	**194**	**196**	**223**	**201**
Heating capacity [6]		kW	23,9	29,1	34,0	38,8	43,3	51,5	58,8	65,9	87,7	104	134	167	193	215
Input power [6]		kW	5,77	7,06	8,36	9,50	10,6	12,5	14,1	16,8	20,8	24,9	32,1	39,4	45,9	51,4
COP [6]			4,13	4,13	4,07	4,09	4,08	4,11	4,16	3,93	4,22	4,16	4,17	4,23	4,20	4,19
COP [7]			5,66	5,62	5,58	5,60	5,52	5,24	5,32	5,12	5,43	5,23	5,29	5,38	5,33	5,33
SCOP [8] [9]			**5,30**	**5,45**	**5,33**	**5,05**	**4,83**	**5,28**	**5,70**	**5,88**	**5,70**	**5,78**	**5,75**	**5,63**	**5,95**	**5,63**
Energy efficiency class [8] [9]			**A+++**	**A+++**	**A+++**	**A+++**	**A+++**	**A+++**	**A+++**	**A+++**	—	—	—	—	—	—
$\eta_{s,h}$ [8] [9]			**204**	**210**	**205**	**194**	**185**	**203**	**220**	**227**	**220**	**223**	**222**	**217**	**230**	**217**
SCOP [8] [10]			**4,00**	**4,48**	**4,45**	**4,30**	**4,28**	**4,45**	**4,63**	**4,78**	**4,75**	**4,75**	**4,73**	**4,48**	**4,88**	**4,68**
Energy efficiency class [8] [10]			**A+++**	**A+++**	**A+++**	**A+++**	**A+++**	**A+++**	**A+++**	**A+++**	—	—	—	—	—	—
$\eta_{s,h}$ [8] [10]			**152**	**171**	**170**	**164**	**163**	**170**	**177**	**183**	**182**	**182**	**181**	**171**	**187**	**179**
Sound power (STD / S) [4]		dB(A)	65 / 62	67 / 64	67 / 64	68 / 65	69 / 66	70 / 67	70 / 68	70 / 68	72 / 70	73 / 71	78 / 76	81 / 79	81 / 79	81 / 79
Sound pressure at 10 m (STD / S) [5]		dB(A)	34 / 31	36 / 33	36 / 33	37 / 34	38 / 35	39 / 36	39 / 37	39 / 37	40 / 39	42 / 40	47 / 45	50 / 48	50 / 48	50 / 48
ECOi-W WQ 20-190 R - condenserless unit	**P-WQE****RA**		**0020**	**0025**	**0030**	**0035**	**0040**	**0045**	**0050**	**0060**	**0075**	**0090**	**0120**	**0150**	**0170**	**0190**
Cooling capacity [11]		kW	18,3	22,7	27,1	30,0	34,2	43,1	45,0	53,4	67,5	80,1	104,0	128,0	148,0	168,0
Input power [11]		kW	5,70	6,97	8,07	9,15	10,1	12,2	13,7	16	20,1	23,9	30,8	38,1	44,2	49,7
Sound power (STD / S) [4]		dB(A)	65/62	67 / 64	67 / 64	68 / 65	69 / 66	70 / 67	70 / 68	70 / 68	72 / 70	73 / 71	78 / 76	81 / 79	81 / 79	81 / 79
Sound pressure at 10 m (STD / S) [5]		dB(A)	34/31	36 / 33	36 / 33	37 / 34	38 / 35	39 / 36	39 / 37	39 / 37	41 / 39	42 / 40	47 / 45	50 / 48	50 / 48	50 / 48

Physical features

ECOi-W WQ 20-190 C/H - cooling only / heat pump			**20**	**25**	**30**	**35**	**40**	**45**	**50**	**60**	**75**	**90**	**120**	**150**	**170**	**190**
Dimension	Height	mm	1350	1350	1350	1350	1350	1350	1500	1500	1500	1500	1500	1500	1500	1500
	Width	mm	455	455	455	455	455	455	850	850	850	850	850	850	850	850
	Length	mm	821	821	821	821	821	821	1210	1210	1210	1210	1210	1210	1210	1210
Operating weight	Cooling only	kg	162	182	179	185	191	214	352	371	392	411	597	666	701	745
	Heat pump	kg	165	187	184	190	195	219	360	379	403	422	610	683	718	762
Water connection (evaporator and condenser)																
Connection type			Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Inlet/outlet diameter		Inch	1 ½	1 ½	1 ½	1 ½	1 ½	1 ½	2 ½	2 ½	2 ½	2 ½	2 ½	2 ½	2 ½	2 ½
ECOi-W WQ 20-190 R - condenserless unit			**20**	**25**	**30**	**35**	**40**	**45**	**50**	**60**	**75**	**90**	**120**	**150**	**170**	**190**
Dimension	Height	mm	1350	1350	1350	1350	1350	1350	1500	1500	1500	1500	1500	1500	1500	1500
	Width	mm	455	455	455	455	455	455	850	850	850	850	850	850	850	850
	Length	mm	821	821	821	821	821	821	1210	1210	1210	1210	1210	1210	1210	1210
Operating weight		kg	144	164	166	166	172	172	332	344	365	376	558	612	643	674
Water connection (evaporator)																
Connection type			Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Inlet/outlet diameter		Inch	1 ½	1 ½	1 ½	1 ½	1 ½	1 ½	2 ½	2 ½	2 ½	2 ½	2 ½	2 ½	2 ½	2 ½
Remote condenser refrigerant connections																
Connection type			To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed
Inlet diameter		Inch	⅝	⅝	⅝	⅝	⅝	⅝	⅝	⅝	⅞	⅞	⅞	⅞	1 ⅛	1 ⅛
Outlet diameter		Inch	⅝	⅞	⅞	⅞	⅞	⅞	⅞	⅞	1 ⅛	1 ⅛	1 ⅜	1 ⅝	1 ⅝	1 ⅝

1) According to EN14511 standard: evaporator EWT/LWT 12 °C/7 °C, condenser EWT/LWT 30 °C/35 °C. 2) According to EN14825 standard. 3) ErP compliant: following COMMISSION REGULATION (EU) 2016/2281. 4) Sound levels are at fully loaded conditions. Sound power values refers to ISO 3744 standard. 5) Sound pressures refer to ISO 3744 standard, parallelepiped shape. 6) According to EN14511 standard: evaporator EWT/LWT 10 °C/7 °C, condenser EWT/LWT 40 °C/45 °C. 7) According to EN14511 standard: evaporator EWT/LWT 10 °C/7 °C, condenser EWT/LWT 30 °C/35 °C. 8) ErP compliant: following COMMISSION REGULATION (EU) No 813/2013. 9) According to EN14825 standard - low temperature application (35 °C). 10) According to EN14825 standard - medium temperature application (55 °C). 11) Data refers to evaporator water temperature 12/7 °C and condensing temperature 50 °C.

ErP | HIGH SEER 6.70 | HIGH SCOP 5,88 | WATER COOLED | PLATE HEAT EXCHANGER | SCROLL COMPRESSOR | SUPER QUIET | VERY HIGH PERFORMANCE

Specifications subject to change without notice. For detailed information about ErP / Energy Labelling, please visit our websites www.aircon.panasonic.eu or www.ptc.panasonic.eu.

ECOi-W WQ 524-1604 C/H/R · R410A

Water cooled chillers, heat pumps and condenserless units.

Cooling capacity: 154,3 to 459,8 kW.
Heating capacity: 170,2 to 508,4 kW.

The range at a glance

- 3 versions: C (cooling only), H (heat pump) and R (condenserless unit)
- 10 sizes
- 2 acoustic options: STD (standard) and S (super low noise)

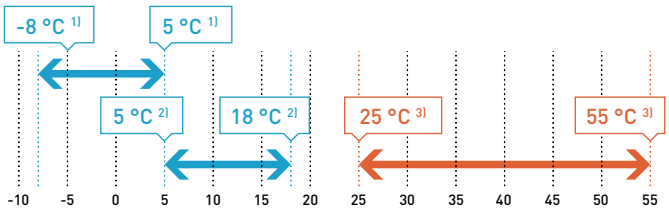
Advantages

- High full load efficiency: EER up to 4,50, COP up to 3,90
- High seasonal performances: SEER up to 6,50
- Advanced electronic controller: auto-adaptive function to reduce water content in the piping system
- Condensing pressure control option: suitable for well application
- Wide range of Plug & Play hydrokit: easy hydraulic installation
- Desuperheater heat exchanger available as option: heating capacity for free thanks to heat recovery

Operating limits

To be confirmed with AC SELECT:
https://acselect.panasonic.eu/

Leaving water temperature.



1) With glycol + EEV.
2) Without glycol + EEV.
3) Only C/H types 20-190.
Note: maximum % glycol (ethylenic or propilenic): 40%.

ECOi-W WQ 524-1604 C/H/R				
Cooling	Leaving water temperature	ΔT	°C	From 3 to 8
Heating 1)	Leaving water temperature	ΔT	°C	From 3 to 15

1) Only C/H types 20-190.

Equipment

- 2 refrigerant circuits
- Four scroll compressors (tandem)
- Plate evaporator (AISI 316)
- Differential pressure switch
- Electronic expansion valve (standard 1104-1604)
- Phase sequence control

Accessories and options
Desuperheater
Hydrokit with 1 or 2 pumps for evaporator and condenser
Mechanical gauges

Accessories and options
Soft starter
Water filter
Water flow switch

AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical performance

Power supply	Voltage	V	400	400	400	400	400	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50	50	50	50	50
Size			**524**	**604**	**704**	**804**	**904**	**1004**	**1104**	**1204**	**1404**	**1604**
ECOi-W WQ 524-1604 C - cooling only		**P-**	**WQE0524CA**	**WQE0604CA**	**WQE0704CA**	**WQE0804CA**	**WQE0904CA**	**WQE1004CA**	**WQE1104CA**	**WQE1204CA**	**WQE1404CA**	**WQE1604CA**
Cooling capacity [1]		kW	154,3	181,8	208,9	232,6	265,8	295,6	338,0	379,2	421,1	459,8
Input power [1]		kW	34,2	41,6	47,5	53,3	59,3	65,7	74,9	83,4	95,0	107,3
EER [1]			4,51	4,37	4,40	4,36	4,48	4,51	4,51	4,56	4,43	4,28
SEER [2] [3]			**5,55**	**6,28**	**6,1**	**5,75**	**6,1**	**6,1**	**6,2**	**6,25**	**6,43**	**6,47**
$\eta_{s,c}$ [2] [3]			**219**	**248**	**241**	**227**	**241**	**241**	**245**	**247**	**254**	**256**
Sound power (STD / S) [4]		dB(A)	81 / 75	82 / 76	85 / 79	87 / 81	89 / 83	90 / 84	90 / 84	90 / 84	92 / 86	94 / 88
Sound pressure at 10 m (STD / S) [5]		dB(A)	49 / 43	50 / 44	53 / 47	55 / 49	57 / 51	58 / 52	58 / 52	58 / 52	60 / 54	62 / 56
ECOi-W WQ 524-1604 H - heat pump		**P-**	**WQE0524HA**	**WQE0604HA**	**WQE0704HA**	**WQE0804HA**	**WQE0904HA**	**WQE1004HA**	**WQE1104HA**	**WQE1204HA**	**WQE1404HA**	**WQE1604HA**
Cooling capacity [1]		kW	150,7	176,2	204,5	225,4	263,1	291,3	332,0	370,5	421,1	459,8
Input power [1]		kW	34,9	42,7	48,3	54,3	59,8	66,4	76,2	85,2	95,0	107,3
EER [1]			4,32	4,13	4,23	4,15	4,40	4,39	4,36	4,35	4,43	4,28
SEER [2]			**4,65**	**4,92**	**4,92**	**4,68**	**5,15**	**5,1**	**5,27**	**5,3**	**6,43**	**6,47**
$\eta_{s,c}$ [2]			**183**	**194**	**194**	**184**	**203**	**201**	**208**	**209**	**254**	**256**
Heating capacity [6]		kW	172	203	234	259	298	333	380	422	471	509
Input power [6]		kW	41,9	50,8	57,6	65,1	72,5	80,8	92,1	103	121	135
COP [6]			4,11	4,00	4,07	3,99	4,12	4,12	4,12	4,10	3,91	3,76
COP [7]			5,36	5,08	5,25	5,11	5,33	5,44	5,30	5,30	5,08	4,99
SCOP [8] [9]			**5,40**	**5,20**	**5,38**	**5,35**	**5,73**	**5,85**	**5,83**	**5,85**	**—**	**—**
$\eta_{s,h}$ [8] [9]			**208**	**200**	**207**	**206**	**221**	**226**	**225**	**226**	**—**	**—**
SCOP [8] [10]			**4,55**	**4,38**	**4,48**	**4,43**	**4,53**	**4,58**	**4,60**	**4,60**	**—**	**—**
$\eta_{s,h}$ [8] [10]			**174**	**167**	**171**	**169**	**173**	**175**	**176**	**176**	**—**	**—**
Sound power (STD / S) [4]		dB(A)	81 / 75	82 / 76	85 / 79	87 / 81	89 / 83	90 / 84	90 / 84	90 / 84	92 / 86	94 / 88
Sound pressure at 10 m (STD / S) [5]		dB(A)	49 / 43	50 / 44	53 / 47	55 / 49	57 / 51	58 / 52	58 / 52	58 / 52	60 / 54	62 / 56
ECOi-W WQ 524-1604 R - condenserless unit		**P-**	**WQE0524RA**	**WQE0604RA**	**WQE0704RA**	**WQE0804RA**	**WQE0904RA**	**WQE1004RA**	**WQE1104RA**	**WQE1204RA**	**WQE1404RA**	**WQE1604RA**
Cooling capacity [11]		kW	130,0	155,3	177,6	196,5	224,2	247,2	285,9	316,1	368,0	397,0
Input power [11]		kW	43,2	51,5	59,5	66,4	74,8	83	95	106	120	134
Sound power (STD / S) [4]		dB(A)	81 / 75	82 / 76	85 / 79	87 / 81	89 / 83	90 / 84	90 / 84	90 / 84	92 / 86	94 / 88
Sound pressure at 10 m (STD / S) [5]		dB(A)	49 / 43	50 / 44	53 / 47	55 / 49	57 / 51	58 / 52	58 / 52	58 / 52	60 / 54	62 / 56

Physical features

ECOi-W WQ 524-1604 C/H/R - cooling only / heat pump / condenserless unit			**524**	**604**	**704**	**804**	**904**	**1004**	**1104**	**1204**	**1404**	**1604**
Dimension	Height	mm	1845 [12] / 1880 [13]	1845 [12] / 1880 [13]	1845 [12] / 1880 [13]	1845 [12] / 1880 [13]	1845 [12] / 1880 [13]	1845 [12] / 1880 [13]	1845 [12] / 1880 [13]	1845 [12] / 1880 [13]	1845 [12] / 1880 [13]	1845 [12] / 1880 [13]
	Width	mm	850 [12] / 854 [13] / 885 [12] [14] - 1005 [13] [14]	850 [12] / 854 [13] / 885 [12] [14] - 1005 [13] [14]	850 [12] / 854 [13] / 885 [12] [14] - 1005 [13] [14]	850 [12] / 854 [13] / 885 [12] [14] - 1005 [13] [14]	850 [12] / 854 [13] / 885 [12] [14] - 1005 [13] [14]	850 [12] / 854 [13] / 885 [12] [14] - 1005 [13] [14]	850 [12] / 854 [13] / 885 [12] [14] - 1005 [13] [14]	850 [12] / 854 [13] / 885 [12] [14] - 1005 [13] [14]	850 [12] / 854 [13] / 885 [12] [14] - 1005 [13] [14]	850 [12] / 854 [13] / 885 [12] [14] - 1005 [13] [14]
	Length	mm	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250
Operating weight - cooling only	STD	kg	890	971	1156	1329	1340	1453	1552	1660	1743	1798
	S	kg	993	1074	1259	1432	1443	1556	1655	1763	1846	1901
Operating weight - heat pump	STD	kg	909	989	1187	1360	1376	1500	1598	1704	1787	1842
	S	kg	1012	1092	1290	1463	1479	1603	1701	1807	1890	1945
Operating weight - condenserless unit	STD	kg	770	812	988	1163	1188	1241	1328	1388	1463	1502
	S	kg	873	915	1091	1266	1291	1344	1431	1491	1566	1605
Water connection												
Connection type			Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Inlet/outlet diameter		Inch	2 ½	2 ½	2 ½	2 ½	4	4	4	4	4	4
ECOi-W WQ 524-1604 R - condenserless unit			**524**	**604**	**704**	**804**	**904**	**1004**	**1104**	**1204**	**1404**	**1604**
Remote condenser refrigerant connections												
Connection type			To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed
Inlet diameter		Inch	⅞	⅞	1 ⅛	1 ⅛	1 ⅛	1 ⅛	1 ⅛	1 ⅛	1 ⅛	1 ⅛
Outlet diameter		Inch	1 ⅛	1 ⅛	1 ⅜	1 ⅜	1 ⅝	1 ⅝	1 ⅝	1 ⅝	1 ⅝	1 ⅝

1) According to EN14511 standard: evaporator EWT/LWT 12 °C/7 °C, condenser EWT/LWT 30 °C/35 °C. 2) According to EN14825 standard. 3) ErP compliant: following COMMISSION REGULATION (EU) 2016/2281. 4) Sound levels are at fully loaded conditions. Sound power values refers to ISO 3744 standard. 5) Sound pressures refer to ISO 3744 standard, parallelepiped shape. 6) According to EN14511 standard: evaporator EWT/LWT 10 °C/7 °C, condenser EWT/LWT 40 °C/45 °C. 7) According to EN14511 standard: evaporator EWT/LWT 10 °C/7 °C, condenser EWT/LWT 30 °C/35 °C. 8) ErP compliant: following COMMISSION REGULATION (EU) No 813/2013. 9) According to EN14825 standard - low temperature application (35 °C). 10) According to EN14825 standard - medium temperature application (55 °C). 11) Data refers to evaporator water temperature 12/7 °C and condensing temperature 50 °C. 12) Standard version. 13) S version. 14) Only for handling.

ErP
HIGH SEER 6,47
HIGH SCOP 5,85
WATER COOLED
PLATE HEAT EXCHANGER
SCROLL COMPRESSOR
VERY HIGH PERFORMANCE

ECOi-W WSW-N EVO 440-1550 C/H/R · R513A

Water cooled chillers, heat pumps and condenserless units.

Cooling capacity: 410 to 1460 kW.
Heating capacity: 470 to 1650 kW.

The range at a glance

- 3 versions: C (cooling only), H (heat pump water side) and R (condenserless unit)
- 15 sizes
- 2 acoustic options: STD (standard) and S (super low noise)

Advantages

- High full load performances: EER up to 4,90
- High seasonal performances: SEER up to 6,70
- Compressor optimization (high / low pressure ratio), according application: Maximum benefit in terms of efficiency design
- Electronic expansion device: excellent control of superheating for the best performance at full and partial load and for a safe operation
- New generation of pure counter-current shell and tube evaporators and condensers: maximum efficiency and new levels of competitiveness
- Control platform: modular architecture, compressor envelope integration, corrective actions in border line areas, easy-friendly user interface

Operating limits

To be confirmed with AC SELECT:
https://acselect.panasonic.eu/

ECOi-W WSW-N EVO 440-1550 C - cooling only				
Evaporator	Leaving water temperature	Water	°C	From 5 to 15
		Water + glycol	°C	From 0 to 5
		Brine	°C	From -8 to 0
		ΔT	°C	From 3 to 7
Condenser	Leaving water temperature		°C	From 25 to 45
ECOi-W WSW-N EVO 440-1550 H - heat pump				
Evaporator	Leaving water temperature	Water	°C	From 5 to 15
		Water + glycol	°C	From -8 to 5
		ΔT	°C	From 3 to 7
Condenser	Leaving water temperature		°C	From 25 to 60
ECOi-W WSW-N EVO 440-1550 R - condenserless unit				
Evaporator	Leaving water temperature	Water	°C	From 5 to 15
		Water + glycol	°C	From -8 to 5
		ΔT	°C	From 3 to 7
Condenser	Condensing temperature		°C	From 30 to 63

Equipment

- 1/2 refrigerant circuit(s)
- Twin-screw compressors
- Shell and tube evaporator and condenser
- Electronic expansion valve
- Compressor acoustic box (standard for S version)
- Phase sequence control

Accessories and options
Automatic circuit breaker
BMS interface
Compressor stepless control
Mechanical gauges

Accessories and options
Power factor corrector capacitors
Soft starter
Water filter
Water flow switch

AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical performance

Power supply	Voltage	V	400							
	Phase		Three phase							
	Frequency	Hz	50							
Size			**440**		**490**	**570**	**630**	**700**		**770**
ECOi-W WSW-N EVO 440-770 C - cooling only			**P-WSWVN0440CA**		**P-WSWVN0490CA**	**P-WSWVN0570CA**	**P-WSWVN0630CA**	**P-WSWVN0700CA**		**P-WSWVN0770CA**
Cooling capacity [1]	kW		418,6		471,6	539,3	601,9	664,4		734,6
Input power [1]	kW		88,1		101,1	115,1	127,5	144		158,7
Total heat rejection [1]	kW		506,7		572,7	654,3	729,4	808,4		893,4
EER [1]			4,75		4,67	4,69	4,72	4,61		4,63
SEER [2]			**6,38**		**6,38**	**6,52**	**6,42**	**6,38**		**6,38**
$\eta_{s,c}$ [2]			**252**		**252**	**258**	**254**	**252**		**252**
Sound power STD / S [3]	dB(A)		95 / 85		95 / 85	95 / 85	95 / 85	95 / 85		95 / 85
Sound pressure at 1 m STD / S [4]	dB(A)		76 / 66		76 / 66	76 / 66	76 / 66	76 / 66		76 / 66
Size			**860**	**920**	**990**	**1070**	**1130**	**1220**	**1280**	**1400**	**1550**
ECOi-W WSW-N EVO 860-1550 C - cooling only	**P-**		**WSWVN0860CA**	**WSWVN0920CA**	**WSWVN0990CA**	**WSWVN1070CA**	**WSWVN1130CA**	**WSWVN1220CA**	**WSWVN1280CA**	**WSWVN1400CA**	**WSWVN1550CA**
Cooling capacity [1]	kW		825	874,1	936,6	1019,1	1071,8	1159,3	1226,1	1334,6	1457,9
Input power [1]	kW		177,2	190,3	201,4	215,7	228,1	243,8	257,9	286,3	319
Total heat rejection [1]	kW		1002,2	1064,3	1137,9	1234,7	1299,8	1403,0	1484,0	1620,9	1776,9
EER [1]			4,66	4,59	4,65	4,73	4,70	4,76	4,75	4,66	4,57
SEER [2]			**6,41**	**6,41**	**6,41**	**6,42**	**6,53**	**6,51**	**6,44**	**6,45**	**6,42**
$\eta_{s,c}$ [2]			**254**	**253**	**254**	**254**	**258**	**257**	**254**	**255**	**254**
Sound power STD / S [2]	dB(A)		98 / 89	98 / 89	98 / 89	98 / 89	98 / 89	98 / 89	98 / 89	98 / 89	98 / 89
Sound pressure at 1 m STD / S [3]	dB(A)		79 / 70	79 / 70	79 / 70	79 / 70	79 / 70	79 / 70	79 / 70	79 / 70	79 / 70
ECOi-W WSW-N EVO 440-770 H - heat pump			**P-WSWVN0440HA**		**P-WSWVN0490HA**	**P-WSWVN0570HA**	**P-WSWVN0630HA**	**P-WSWVN0700HA**		**P-WSWVN0770HA**
Cooling capacity [1]	kW		419		479	547	612	673		731
Input power [1]	kW		86,5		98	115	132	147		156
EER [1]			4,85		4,89	4,75	4,64	4,58		4,69
Cooling capacity [5]	kW		365,9		418,9	483,2	541	595,6		646,6
Input power [5]	kW		105,2		118,8	141,3	162,1	171,2		191,3
EER [5]			3,48		3,53	3,42	3,34	3,48		3,38
SEER [2]			**6,53**		**6,38**	**6,4**	**6,38**	**6,45**		**6,6**
$\eta_{s,c}$ [2]			**258**		**252**	**253**	**252**	**255**		**261**
Heating capacity [1]	kW		504		576	661	742	813		887
COP [1]			5,83		5,88	5,74	5,62	5,53		5,68
Heating capacity [5]	kW		470,3		536,5	621,7	698,6	764,7		835,9
COP [5]			4,46		4,52	4,4	4,31	4,47		4,37
Sound power STD / S [3]	dB(A)		95 / 85		95 / 85	95 / 85	95 / 85	95 / 85		95 / 85
Sound pressure at 1 m STD / S [4]	dB(A)		76 / 66		76 / 66	76 / 66	76 / 66	76 / 66		76 / 66
ECOi-W WSW-N EVO 860-1550 H - heat pump	**P-**		**WSWVN0860HA**	**WSWVN0920HA**	**WSWVN0990HA**	**WSWVN1070HA**	**WSWVN1130HA**	**WSWVN1220HA**	**WSWVN1280HA**	**WSWVN1400HA**	**WSWVN1550HA**
Cooling capacity [1]	kW		818	882	946	1013	1083	1156	1217	1340	1451
Input power [1]	kW		170	183	195	211	227	242	257	297	306
EER [1]			4,81	4,83	4,85	4,80	4,78	4,78	4,74	4,52	4,74
Cooling capacity [5]	kW		715,5	772	828,1	891,5	958,8	1023,8	1078,2	1186,9	1285,5
Input power [5]	kW		210,1	223,4	236,7	257,3	277	298,6	317,4	342,7	377,4
EER [5]			3,41	3,46	3,5	3,46	3,46	3,43	3,4	3,46	3,41
SEER [2]			**6,4**	**6,5**	**6,4**	**6,4**	**6,5**	**6,48**	**6,48**	**6,5**	**6,7**
$\eta_{s,c}$ [2]			**253**	**257**	**253**	**253**	**257**	**256**	**256**	**257**	**265**
Heating capacity [1]	kW		987	1064	1141	1222	1308	1396	1470	1619	1754
COP [1]			5,8	5,83	5,85	5,8	5,77	5,77	5,73	5,46	5,73
Heating capacity [5]	kW		923	992,7	1063	1146	1231,8	1315,8	1386,1	1523,8	1654,6
COP [5]			4,39	4,44	4,49	4,45	4,45	4,41	4,37	4,45	4,38
Sound power STD / S [3]	dB(A)		98 / 89	98 / 89	98 / 89	98 / 89	98 / 89	98 / 89	98 / 89	98 / 89	98 / 89
Sound pressure at 1 m STD / S [4]	dB(A)		79 / 70	79 / 70	79 / 70	79 / 70	79 / 70	79 / 70	79 / 70	79 / 70	79 / 70
ECOi-W WSW-N EVO 440-770 R - condenserless unit			**P-WSWVN0440RA**		**P-WSWVN0490RA**	**P-WSWVN0570RA**	**P-WSWVN0630RA**	**P-WSWVN0700RA**		**P-WSWVN0770RA**
Cooling capacity [6]	kW		358,6		405,3	472,7	535,6	586,2		638,1
Input power [6]	kW		106,9		120,2	143,4	161,4	174,9		192,6
Total heat rejection [6]			465,8		525,8	614,6	694	760,9		828,8
Sound power STD / S [3]	dB(A)		95 / 85		95 / 85	95 / 85	95 / 85	95 / 85		95 / 85
Sound pressure at 1 m STD / S [4]	dB(A)		76 / 66		76 / 66	76 / 66	76 / 66	76 / 66		76 / 66
ECOi-W WSW-N EVO 860-1550 R - condenserless unit	**P-**		**WSWVN0860RA**	**WSWVN0920RA**	**WSWVN0990RA**	**WSWVN1070RA**	**WSWVN1130RA**	**WSWVN1220RA**	**WSWVN1280RA**	**WSWVN1400RA**	**WSWVN1550RA**
Cooling capacity [6]	kW		708,9	758,1	817,2	886,2	947,7	1015,0	1075,9	1181,4	1277,8
Input power [6]	kW		213,7	226,9	240,7	263,1	284	306,3	325,4	348,4	384,4
Total heat rejection [6]			922,3	984,7	1057,4	1147,9	1230,6	1316,3	1395,1	1527,5	1657,7
Sound power STD / S [3]	dB(A)		98 / 89	98 / 89	98 / 89	98 / 89	98 / 89	98 / 89	98 / 89	98 / 89	98 / 89
Sound pressure at 1 m STD / S [4]	dB(A)		79 / 70	79 / 70	79 / 70	79 / 70	79 / 70	79 / 70	79 / 70	79 / 70	79 / 70

1) According to EN14511 standard: evaporator EWT/LWT 12 °C/7 °C, condenser EWT/LWT 30 °C/35 °C. 2) ErP compliant: following COMMISSION REGULATION (EU) 2016/2281 and according to EN14825 standard. 3) Sound levels are at fully loaded conditions. Sound power values refers to ISO 3744 standard. 4) Sound pressures refer to ISO 3744 standard, parallelepiped shape. 5) According to EN14511 standard: evaporator EWT/LWT 10 °C/7 °C, condenser EWT/LWT 40 °C/45 °C. 6) Conditions: evaporator EWT/LWT 12 °C/7 °C, condensing Temperature 49 °C.

ErP | HIGH SEER 6.70 | HIGH SCOP 4.52 | WATER COOLED | SHELL AND TUBE EVAPORATOR | SCREW COMPRESSOR | VERY HIGH PERFORMANCE

Specifications subject to change without notice. For detailed information about ErP / Energy Labelling, please visit our websites www.aircon.panasonic.eu or www.ptc.panasonic.eu.

Physical features

ECOi-W WSW-N EVO 440-770 C - cooling only			440	490	570	630	700	770
Dimension	Height	mm	1650	1650	1650	1650	1650	1650
	Height S	mm	1750	1750	1750	1750	1750	1750
	Width	mm	1350	1350	1350	1350	1350	1350
	Length	mm	4250	4250	4210	4210	4180	4180
Operating weight	STD	kg	2690	2700	2875	3003	3472	3521
	S	kg	2884	2894	3069	3197	3666	3715
Water connection								
Connection type	Evaporator		Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Inlet/outlet diameter		Inch	6	6	6	6	8	8
Connection type	Condenser		Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded
Inlet/outlet diameter		Inch	4	4	5	5	5	5

ECOi-W WSW-N EVO 860-1550 C - cooling only			860	920	990	1070	1130	1220	1280	1400	1550
Dimension	Height	mm	1710	1710	1710	1710	1710	1710	1710	1710	1710
	Height S	mm	1780	1780	1780	1780	1780	1780	1780	1780	1780
	Width	mm	1520	1520	1520	1520	1520	1520	1520	1520	1520
	Length	mm	4510	4510	4600	4650	4650	4650	4650	5350	5350
	Length S	mm	4510	4510	4690	4690	4690	4690	4690	5400	5400
Operating weight	STD	kg	5000	5010	5642	5818	6012	6077	6124	6698	6752
	S	kg	5388	5398	6030	6206	6400	6465	6512	7086	7140
Water connection											
Connection type	Evaporator		Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Inlet/outlet diameter		Inch	8	8	10	10	10	10	10	10	10
Connection type	Condenser		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
Inlet/outlet diameter		Inch	4 / 4	4 / 4	5 / 5	5 / 5	5 / 5	5 / 5	5 / 5	5 / 5	5 / 5

ECOi-W WSW-N EVO 440-770 H - heat pump			440	490	570	630	700	770
Dimension	Height	mm	1650	1650	1650	1650	1650	1650
	Height S	mm	1750	1750	1750	1750	1750	1750
	Width	mm	1450	1450	1450	1450	1450	1450
	Length	mm	4590	4590	4630	4630	4320	4560
Operating weight	STD	kg	3055	3186	3277	3197	4027	3824
	S	kg	3249	3380	3471	3491	4221	4017
Water connection								
Connection type	Evaporator		Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Inlet/outlet diameter		Inch	6	6	6	6	8	8
Connection type	Condenser		Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Inlet/outlet diameter		Inch	4	4	5	5	5	5

ECOi-W WSW-N EVO 860-1550 H - heat pump			860	920	990	1070	1130	1220	1280	1400	1550
Internal heat exchanger											
Connection type	Evaporator		Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Inlet/outlet diameter		Inch	8	8	10	10	10	10	10	10	10
Connection type	Condenser		Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Inlet/outlet diameter		Inch	4 / 4	4 / 4	4 / 4	4 / 5	5 / 5	5 / 5	5 / 5	5 / 5	5 / 5
Weight											
Operating weight	STD	kg	5818	5841	6119	6545	6768	6807	6844	7991	8071
	S	kg	6205	6229	6506	6932	7155	7194	7232	8378	8458
Dimension	Height	mm	1680	1680	1680	1680	1680	1680	1680	1710	1710
	Height S	mm	1780	1780	1780	1780	1780	1780	1780	1780	1780
	Width	mm	1520	1520	1520	1520	1520	1520	1520	1580	1580
	Length	mm	5110	5110	5100	5100	5000	5000	5000	5300	5300
	Length S	mm	5130	5130	5120	5120	5020	5020	5020	5320	5320

Physical features

ECOi-W WSW-N EVO 440-770 R - condenserless unit			440	490	570	630	700	770
Dimension	Height	mm	1650	1650	1650	1650	1650	1650
	Height S	mm	1750	1750	1750	1750	1750	1750
	Width	mm	1350	1350	1350	1350	1350	1350
	Length	mm	3620	3620	4210	4210	4180	4180
Operating weight	STD	kg	2302	2312	2456	2476	2952	2992
	S	kg	2496	2506	2650	2670	3146	3186
Water connection (evaporator)								
Connection type			Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Inlet/outlet diameter		Inch	6	6	6	6	8	8
Remote condenser refrigerant connections								
Connection type			To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed
Inlet diameter circuit 1		Inch	1 5/8	1 5/8	2 1/8	2 1/8	2 1/8	2 1/8
Outlet diameter circuit 1		Inch	3 1/8	3 1/8	3 5/8	3 5/8	4 1/8	4 1/8

ECOi-W WSW-N EVO 860-1550 R - condenserless unit			860	920	990	1070	1130	1220	1280	1400	1550
Dimension	Height	mm	1710	1710	1710	1710	1710	1710	1710	1710	1710
	Height S	mm	1770	1770	1770	1770	1770	1770	1770	1770	1770
	Width	mm	1520	1520	1520	1520	1520	1520	1520	1520	1520
	Length	mm	4400	4400	4600	4650	4650	4650	4650	5350	5350
	Length S	mm	4650	4650	4650	4650	4650	4650	4650	5400	5400
Operating weight	STD	kg	4804	4814	4998	5071	5131	5170	5190	5596	5676
	S	kg	5191	5201	5385	5458	5518	5557	5577	5983	6063
Water connection (evaporator)											
Connection type			Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Inlet/outlet diameter		Inch	8	8	10	10	10	10	10	10	10
Remote condenser refrigerant connections											
Connection type			To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed
Inlet diameter circuit 1		Inch	1 5/8	1 5/8	1 5/8	2 1/8	2 1/8	2 1/8	2 1/8	2 1/8	2 1/8
Outlet diameter circuit 1		Inch	3 1/8	3 1/8	3 1/8	3 1/8	3 1/8	3 1/8	3 1/8	4 1/8	4 1/8
Inlet diameter circuit 2		Inch	1 5/8	1 5/8	1 5/8	2 1/8	2 1/8	2 1/8	2 1/8	2 1/8	2 1/8
Outlet diameter circuit 2		Inch	3 1/8	3 1/8	3 1/8	3 1/8	3 1/8	3 1/8	3 1/8	4 1/8	4 1/8

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Smart fan coils → 94
Fan coil controllers → 96

Fan coil units

A large range of fan coil units dedicated to energy savings, comfort, flexibility and quality.

Energy savings and comfort

Low consumption solutions.
· High efficiency fan motor
· High level of energy performance

Silence.
· Optimised fan speed staging
· Reinforced acoustic insulation
· Profiled air diffusers

Flexibility and quality

Many factory-mounted options.
· Control
· Valve
· Air diffusion
· Condensate drain pump ...

Products fully customisable to satisfy your requirements.
· Choice of service side for hydraulic and electrical connections
· Version with or without cabinet ...

Quick selection guide - Fan coil units

Page	Size	Cooling and heating capacity [1] (kW)	NR sound levels (at MS) [1] [2]	Air flow [1] (m^3/h)	Pressure (Pa)	Fan	Dimensions [3] (mm)
Fan coil comfort	10	2,0 / 2,3	33	108-417	—	AC/EC	766 x 225 x 477
	20	2,1 / 2,5	33	98-413	—	AC/EC	766 x 225 x 477
	30	1,8 / 2,7	36	119-345	—	AC/EC	951 x 225 x 477
	40	4,2 / 4,5	30	170-678	—	AC/EC	1136 x 225 x 477
P. 78	50	5,0 / 5,2	37	203-816	—	AC/EC	1321 x 225 x 477
	60	5,2 / 5,8	40	245-912	—	AC/EC	1506 x 225 x 477
	70	6,6 / 7,2	40	350-1050	—	AC/EC	1319 x 225 x 575
	80	8,4 / 9,3	42	685-1398	—	EC	1506 x 225 x 575
Fan coil cassette	20	2,4 / 2,7	27	360-659	—	AC/EC	595 x 595 x 341
	30	4,0 / 3,7	30	320-734	—	AC/EC	595 x 595 x 341
	40	4,7 / 5,3	34	486-900	—	AC/EC	595 x 595 x 341
P. 82	50	6,1 / 6,8	26	529-979	—	AC/EC	849 x 849 x 358
	60	7,2 / 8,5	32	500-1159	—	AC/EC	849 x 849 x 358
	70	9,6 / 11,0	38	601-1598	—	AC/EC	849 x 849 x 358
Fan coil wall	7	1,7 / 1,7	36	282-360	—	AC	845 x 180 x 275
	9	2,5 / 2,8	39	367-551	—	AC	845 x 180 x 275
	18	3,6 / 4,1	43	532-680	—	AC	940 x 200 x 298
P. 86	22	4,0 / 4,5	46	617-850	—	AC	940 x 200 x 298
Fan coil duct	10	1,5 / 1,8	30	48-161	0-70	EC	633 x 631 x 223
	15	2,1 / 2,6	32	255-491	0-90	EC	733 x 631 x 223
	20	2,7 / 2,6	35	360-599	0-90	EC	833 x 631 x 223
	25	3,2 / 3,4	34	448-642	0-90	EC	933 x 631 x 223
P. 88	30	4,8 / 5,0	34	300-1068	0-90	EC	933 x 631 x 223
	40	6,7 / 7,1	34	347-1293	0-90	EC	1233 x 653 x 223
Fan coil high static duct	7	5,6 / 6,7	34	703-1125	0-110	AC/EC	1200 x 698 x 250
	15	13,3 / 15,5	40	960-2830	0-200	AC/EC	1380 x 798 x 375
	18	13,9 / 18,0	40	960-2830	0-200	AC/EC	1380 x 798 x 375
	21	17,0 / 17,8	40	960-2830	0-200	AC/EC	1380 x 798 x 375
P. 90	24	21,2 / 24,3	44	2040-3451	0-220	AC/EC	1500 x 798 x 450
	27	24,8 / 25,0	44	2040-3451	0-220	AC/EC	1500 x 798 x 450
Smart fan coils	200	0,6 / 0,5	—	54-162	—	DC	579 x 735 x 129
	700	1,5 / 1,2	—	156-318	—	DC	579 x 935 x 129
	900	2,1 / 1,6	—	246-462	—	DC	579 x 1135 x 129
P. 94	1100	2,5 / 2,1	—	372-576	—	DC	579 x 1335 x 129

1) Data for fan coil comfort, cassette and duct EC fan 2-pipe version. Data for fan coil high static duct AC fan / 2-pipe version. 2) Informative data, considering an hypothetical sound attenuation of the room and installation of 9 dB(A) (21dB(A) for fan coil high static duct). 3) Fan coil comfort: with cabinet / without feet. Fan coil cassette: casing + IRYS COANDA 360 diffuser. Fan coil duct and high static duct: configuration: rectangular return and discharge.

Fan coil comfort AC fan

Fan coil floor and ceiling units with cooling and heating.

Cooling capacity: 0,6 to 6,9 kW. Heating capacity: 0,6 to 7,4 kW.

Optional controller. WRC remote control.

Optional controller. SRC - mini BMS controller.

Optional controller. Electronic controller TControl POD glass.

Optional controller. Electronic controller TControl EASY 3S.

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

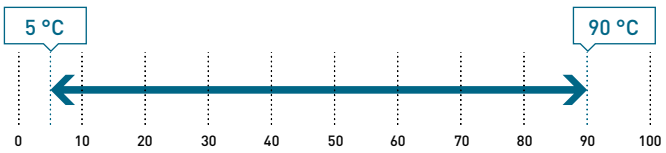
Optional controller. Wired remote controller.
PAW-FC-903AC

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

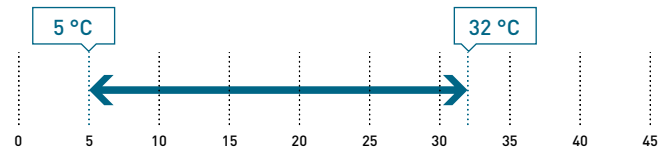
+ SEE PAGE 96 FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

Operating limits

Entering water temperature (without glycol).



Indoor air temperature.



The range at a glance

- Versions: 2-pipes, 2-pipes + electric heater and 4-pipes
- 7 sizes
- 5-speed AC fan - standard factory set speeds: S1,S3,S5
- Air flow from 94 to 1064 m³/h
- Configuration: universal installation units (vertical or horizontal) with or without cabinet
- Left or right water connections
- Many air inlet/outlet configurations
- G2 air filter (G3 as an option)

Advantages

- Silent units
- New casing design for an increased robustness
- Harmonious and aesthetic RAL 9003 painted cabinet
- Valves, condensate drain pan and drain pump factory mounted
- 100% factory tested

Accessories and options
2 way or 3 way valves
4-pipes kit (additional coil)
Circuit breakers
Drain pump
Electric heaters (from 500 W to 2500 W)
Feet with/without grid
Fuse holders
G3 filter
Horizontal or vertical drain guard (with valve)
Many air inlet/outlet configurations
Mechanical sensor for automatic change over
Modbus communication board for Plogic
MRC/WRC/BRC: remote controls for Plogic
Other speeds configuration (standard factory set speeds: S1,S3,S5)
SRC - mini BMS controller
Suspension kit
Plogic controller (other electromechanical or electronic control systems also available)
TControl EASY 3S and TControl POD glass controllers (other electromechanical or electronic control systems also available)

AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical features

Fan coil comfort AC fan			P-FC10	P-FC20	P-FC30	P-FC40	P-FC50	P-FC60	P-FC70
			S1/S3/S5 [1]	S1/S3/S5 [1]	S1/S3/S5 [1]	S1/S3/S5 [1]	S1/S3/S5 [1]	S1/S3/S5 [1]	S1/S3/S5 [1]
2-pipes									
Total cooling capacity [2]		kW	0,66/1,00/1,45	0,61/0,96/1,38	0,95/1,88/2,37	1,14/2,28/3,02	1,71/3,16/4,64	2,57/4,33/5,53	3,24/5,84/6,91
Sensible capacity [2]		kW	0,48/0,77/1,05	0,43/0,70/1,02	0,78/1,44/1,80	0,83/1,66/2,23	1,24/2,23/3,27	1,81/3,14/4,25	2,26/4,11/4,85
Water flow [2]		l/h	114/172/250	105/165/238	164/324/408	196/393/520	295/544/799	443/746/953	558/1006/1190
Water pressure drop [2] [3]		kPa	9,17/19,5/39,1	2,65/4,62/7,43	5,8/17,6/26,3	5,0/15,6/25,6	7,5/22,8/47,1	12,6/33,9/54,4	4,4/13,9/19,4
Heating capacity [4]		kW	0,63/1,18/1,71	0,63/1,03/1,53	1,00/1,86/2,49	1,14/2,28/3,18	1,79/3,47/4,81	2,45/4,22/5,63	3,45/6,27/7,41
Water flow [4]		l/h	109/203/295	109/177/264	172/320/429	196/393/548	308/598/829	422/727/970	594/1080/1276
Water pressure drop [3] [4]		kPa	5,9/17,3/33,8	2,76/5,06/8,54	5,8/16,2/27,0	5,0/15,6/28,1	6,1/20,7/38,5	18,6/52,4/91,4	4,9/16,0/22,3
4-pipes									
Total cooling capacity [2]		kW	0,63/0,88/1,24	0,87/1,34/1,73	0,91/1,80/2,28	0,98/2,14/2,85	1,57/2,88/4,13	2,60/4,39/5,61	3,17/5,62/6,58
Sensible capacity [2]		kW	0,46/0,67/0,91	0,65/1,02/1,36	0,75/1,39/1,74	0,71/1,57/2,10	1,14/2,04/2,92	1,82/3,18/4,28	2,21/3,96/4,62
Water flow [2]		l/h	109/152/214	150/231/298	157/310/393	169/369/491	270/496/711	448/756/966	546/968/1133
Water pressure drop [2] [3]		kPa	7,6/13,9/26,3	2,33/4,44/6,64	2,8/8,6/13,1	5,8/20,5/33,6	3,9/11,6/22,8	10,2/27,7/44,5	5,3/16,2/22,1
Heating capacity [5]		kW	0,63/1,00/1,41	1,00/1,40/1,68	1,28/1,81/2,13	1,22/2,21/2,85	2,01/3,19/4,08	2,71/4,24/5,33	3,65/5,00/5,90
Water flow [5]		l/h	54/86/121	86,1/121/145	110/156/183	105/190/245	173/275/351	233/365/459	314/431/508
Water pressure drop [3] [5]		kPa	1,2/2,1/3,3	1,15/2,2/3,12	2,8/4,7/6,1	5,1/13,9/21,8	5,7/12,5/19,4	11,6/24,8/37	35,4/60,7/81,2
Sound levels									
Sound power	2-pipes	dB(A)	33/40/49	31/43/50	30/45/52	30/44/51	34/43/56	38/51/58	43/56/61
	4-pipes	dB(A)	33/40/49	31/43/50	30/45/52	30/44/51	34/46/56	38/51/58	43/56/61
Sound pressure [6]	2-pipes	dB(A)	24/31/40	22/34/41	21/36/43	21/35/42	25/37/47	29/42/49	34/47/52
	4-pipes	dB(A)	24/31/40	22/34/41	21/36/43	21/35/42	25/37/47	29/42/49	34/47/52
NR [6]	2-pipes		19/26/35	17/29/36	16/31/38	16/30/37	20/32/42	24/37/44	29/42/47
	4-pipes		19/26/35	17/29/36	16/31/38	16/30/37	20/32/42	24/37/44	29/42/47
Ventilation									
Number of fans			1	1	1	2	2	2	2
Air flow	2-pipes	m³/h	94/190/283	68/104/196	138/274/390	173/357/499	253/486/716	350/640/933	480/893/1064
	4-pipes	m³/h	95/168/253	89/161/241	132/263/369	148/335/467	242/466/671	334/614/885	470/859/1012
Filter			G2	G2	G2	G2	G2	G2	G2
Electrical data									
Power supply	Voltage	V	230	230	230	230	230	230	230
	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
Consumption	2-pipes	W	13/24/36	13/18/31	16/37/45	15/37/56	28/55/72	37/75/105	53/100/147
	4-pipes	W	13/24/36	11/18/28	16/37/44	15/37/55	28/54/70	37/74/104	53/99/145
Electric heater		W	500	500	500/1000	1250	1250/2500	1250/2500	1250/2500
Water connections									
Connection type			Gas female threaded	Gas female threaded	Gas female threaded	Gas female threaded	Gas female threaded	Gas female threaded	Gas female threaded
2 or 4-pipes	Cooling	Inch	½	½	½	½	½	½	¾
4-pipes	Heating	Inch	½	½	½	½	½	½	½
Dimensions									
With cabinet - without feet	L x W x H	mm	766 x 225 x 477	766 x 225 x 477	951 x 225 x 477	1136 x 225 x 477	1321 x 225 x 477	1506 x 225 x 477	1319 x 225 x 575
Without cabinet	L x W x H	mm	570 x 220 x 430	570 x 220 x 430	753 x 220 x 430	938 x 220 x 430	1122 x 220 x 430	1307 x 220 x 430	1121 x 220 x 530
Weight									
With cabinet	2-pipes	kg	19	19	22	27	30	35	35
	4-pipes	kg	20	20	23	29	32	37	37
Without cabinet	2-pipes	kg	13	13	15	20	22	26	27
	4-pipes	kg	14	14	16	22	24	28	29

1) Fan standard factory set speeds. 2) According to Eurovent standard. Air: 27 °C DB/19 °C WB, chilled water: 7 °C/12 °C. 3) Pressure loss by corresponding nominal flow. 4) According to Eurovent standard. Air: 20 °C, hot water: 45 °C/40 °C. 5) According to Eurovent standard. Air: 20 °C, hot water: 65 °C/55 °C. 6) Informative data, considering an hypothetical sound attenuation of the room and installation of 9 dB(A).

ErP SUPER QUIET ErP compliant following COMMISSION REGULATION (EU) 2016/2281.

Fan coil comfort EC fan

Fan coil floor and ceiling units with cooling and heating.

Cooling capacity: 0,5 to 9,1 kW.
Heating capacity: 0,6 to 12,9 kW.

Optional controller.
WRC remote control.

Optional controller.
SRC - mini BMS controller.

Optional controller.
Electronic controller TControl POD glass.

Optional controller.
Electronic controller TControl EASY 3S.

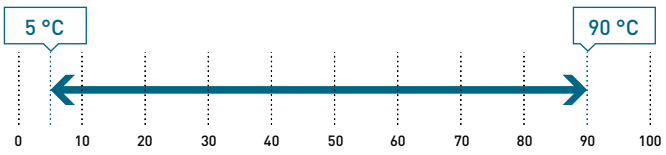
Optional controller.
Wired remote controller with touch control.
PAW-FC-907EC

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

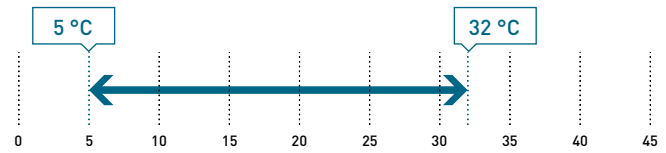
SEE PAGE 96 FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

Operating limits

Entering water temperature (without glycol).



Indoor air temperature.



The range at a glance

- Versions: 2-pipes, 2-pipes + electric heater and 4-pipes
- 8 sizes
- Low energy consumption EC fan: 100% controllable via a 0-10 V signal or 3 operating speeds
- Air flow from 91 to 1548 m^3/h
- Configuration: universal installation units (vertical or horizontal) with or without cabinet
- Left or right water connections
- Many air inlet/outlet configurations
- G2 air filter (G3 as an accessory)

Advantages

- Excellent performances: FCEER and FCCOP up to "A"
- Silent units
- New casing design for an increased robustness
- Harmonious and aesthetic RAL 9003 painted cabinet
- Valves, condensate drain pan and drain pump factory mounted
- 100% factory tested

Accessories and options
2 way or 3 way valves
4-pipes kit (additional coil)
Circuit breakers
Drain pump
Ecospeed card for EC fans
Electric heaters (from 500 W to 2500 W)
Feet with/without grid
Fuse holders
G3 filter
Horizontal or vertical drain guard (with valve)
Many air inlet/outlet configurations
Electromechanical sensor for automatic change over
Modbus communication board for Plogic
MRC/WRC/BRC: remote controls for Plogic
Other speeds configuration (standard factory set speeds in technical features table)
SRC - mini BMS controller
Suspension kit
Plogic controller (other electromechanical or electronic control systems also available)
TControl EASY 3S and TControl POD glass controllers (other electromechanical or electronic control systems also available)

AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical features

Fan coil comfort EC fan			P-FC10	P-FC20	P-FC30	P-FC40	P-FC50	P-FC60	P-FC70	P-FC80
			2V/5V/10V [1]	2V/5V/10V [1]	2V/6V/10V [1]	2V/5V/10V [1]	2V/7V/10V [1]	2V/7V/10V [1]	4V/8V/10V [1]	3V /4,1V/6,4V [1]
2-pipes										
Total cooling capacity [2]		kW	0,59/1,16/1,96	0,61/1,31/2,12	0,67/1,41/1,83	1,34/2,93/4,19	1,34/3,57/4,98	1,98/4,45/5,24	2,55/5,56/6,55	4,59/6,13/8,36
Sensible capacity [2]		kW	0,48/1,00/1,76	0,47/1,06/1,72	0,47/1,04/1,34	0,95/2,10/3,00	1,05/2,70/3,70	1,35/3,51/4,02	1,91/4,10/4,96	3,32/4,51/6,28
Water flow [2]		l/h	102/200/338	105/226/365	141/336/505	231/505/722	231/615/858	341/767/903	439/958/1128	791/1056/1440
Water pressure drop [2] [3]		kPa	7,5/25,7/69,5	1,4/4,3/9,3	5,9/21,8/42,9	6,4/24,3/46,3	4,9/28,7/53,9	7,8/35,8/49,0	2,7/12,6/17,5	11,8/19,5/34,2
Heating capacity [4]		kW	0,67/1,30/2,31	0,68/1,53/2,52	0,80/1,72/2,66	1,11/2,48/4,46	1,38/3,89/5,19	1,95/4,93/5,82	3,05/5,81/7,17	4,63/6,39/9,28
Water flow [4]		l/h	115/224/398	117/264/434	138/296/458	191/427/768	238/670/894	336/849/1002	525/1001/1235	798/1101/1598
Water pressure drop [3] [4]		kPa	6,5/20,6/59,1	1,7/5,5/12,4	4,1/14,2/30,4	4,8/18,1/51,9	3,8/25,7/44,6	12,2/70,7/97,5	3,9/13,8/20,9	11,9/21,0/41,5
4-pipes										
Total cooling capacity [2]		kW	0,51/1,02/1,80	0,57/1,20/2,18	0,75/1,84/2,93	1,03/2,20/3,52	1,17/3,45/4,39	1,69/3,90/4,69	2,44/4,88/6,06	4,44/5,86/9,07
Sensible capacity [2]		kW	0,41/0,87/1,60	0,43/0,96/1,76	0,55/1,44/2,28	0,73/1,57/2,58	0,92/2,61/3,28	1,12/3,05/3,63	1,83/3,61/4,53	3,20/4,31/6,84
Water flow [2]		l/h	87,8/176/310	98,2/207/376	129/317/505	177/379/606	202/594/756	291/672/808	420/841/1044	765/1009/1562
Water pressure drop [2] [3]		kPa	5,2/18,3/53,4	1,3/3,8/9,7	4,0/13,7/28,0	9,3/27,8/58,9	2,3/16,2/25,6	4,6/22,0/31,4	3,2/12,3/18,8	18,8/30,6/67,2
Heating capacity [5]		kW	0,61/1,13/1,87	0,79/1,33/2,09	1,41/2,01/2,77	1,57/2,49/3,62	2,18/3,34/4,10	1,81/4,05/4,81	3,45/4,67/5,53	5,74/7,99/12,90
Water flow [5]		l/h	52,5/97,3/161	68/115/180	121/173/239	135/214/312	188/288/353	156/349/414	297/402/476	494/688/1111
Water pressure drop [3] [5]		kPa	1,1/2,4/4,8	<1/2,0/4,8	7,9/12,3/18,6	10,9/22,2/41,1	6,5/13,6/19,6	16,1/45,3/57,5	32,2/53,9/72,4	19,2/34,5/83,1
Sound levels										
Sound power	2-pipes	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
	4-pipes	dB(A)	34/47/60	34/47/60	31/50/59	29/44/56	30/51/57	32/54/58	40/54/59	51/56/64
Sound pressure [6]	2-pipes	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
	4-pipes	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
NR [6]	2-pipes		20/33/46	20/33/46	17/36/45	15/30/38	16/37/43	18/40/44	26/40/45	37/42/50
	4-pipes		20/33/46	20/33/46	17/36/45	15/30/38	16/37/43	18/40/44	26/40/45	37/42/50
Ventilation										
Number of fans			1	1	1	2	2	2	2	3
Air flow	2-pipes	m^3/h	108/228/417	98/234/413	119/257/345	170/412/678	203/577/816	245/737/912	350/850/1050	685/927/1398
	4-pipes	m^3/h	91/199/379	84/200/380	123/297/540	148/298/524	185/587/755	205/668/845	329/798/989	660/884/1548
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
Consumption	2-pipes	W	7/12/41	7/13/41	6/16/42	2/13/43	4/23/46	4/30/54	11/44/77	23/42/108
	4-pipes	W	7/12/39	7/13/40	6/14/40	2/11/39	4/23/44	4/28/52	11/43/75	22/41/116
Electric heater		W	500	500	500/1000	1250	1250/2500	1250/2500	1250/2500	1250/2500
Water connections										
Connection type			Gas female threaded	Gas female threaded	Gas female threaded	Gas female threaded	Gas female threaded	Gas female threaded	Gas female threaded	Gas female threaded
2 or 4-pipes	Cooling	Inch	½	½	½	½	½	½	¾	¾
4-pipes	Heating	Inch	½	½	½	½	½	½	½	½
Dimensions										
With cabinet - without feet	L x W x H	mm	766 x 225 x 477	766 x 225 x 477	951 x 225 x 477	1136 x 225 x 477	1321 x 225 x 477	1506 x 225 x 477	1319 x 225 x 575	1506 x 225 x 575
Without cabinet	L x W x H	mm	570 x 220 x 430	570 x 220 x 430	753 x 220 x 430	938 x 220 x 430	1122 x 220 x 430	1307 x 220 x 430	1121 x 220 x 530	1316 x 220 x 530
Weight										
With cabinet	2-pipes	kg	19	19	22	27	30	35	35	47
	4-pipes	kg	20	20	23	29	32	37	37	49
Without cabinet	2-pipes	kg	13	13	15	20	22	26	27	38
	4-pipes	kg	14	14	16	22	24	28	29	40

Energy efficiency class [7]

Fan coil comfort EC fan		P-FC10	P-FC20	P-FC30	P-FC40	P-FC50	P-FC60	P-FC70	P-FC80
2-pipes	**FCEER**	**C**	**C**	**B**	**A**	**A**	**A**	**B**	**B**
	FCCOP	**D**	**C**	**C**	**B**	**A**	**B**	**B**	**B**
4-pipes	**FCEER**	**C**	**C**	**B**	**A**	**B**	**B**	**B**	**A**
	FCCOP	**C**	**C**	**B**	**A**	**B**	**B**	**B**	**A**

1) Fan standard factory set speeds (voltage). 2) According to Eurovent standard. Air: 27 °C DB/19 °C WB, chilled water: 7 °C/12 °C. 3) Pressure loss by corresponding nominal flow. 4) According to Eurovent standard. Air: 20 °C, hot water: 45 °C/40 °C. 5) According to Eurovent standard. Air: 20 °C, hot water: 65 °C/55 °C. 6) Informative data, considering an hypothetical sound attenuation of the room and installation of 9 dB(A). 7) According to Eurovent.

ErP
EC MOTOR GREEN VENTILATION
SUPER QUIET
VERY HIGH PERFORMANCE

ErP compliant following COMMISSION REGULATION (EU) 2016/2281.

Fan coil cassette AC fan

Fan coil cassette units with cooling and heating.

Cooling capacity: 1,3 to 8,6 kW.
Heating capacity: 1,1 to 12,8 kW.

The range at a glance

- Versions: 2-pipes, 2-pipes + electric heater and 4-pipes
- 6 sizes
- 3-speed AC fan
- Air flow from 360 to 1447 m³/h
- Integrated condensate drain pump
- G1 cleanable air filter

Advantages

- Aesthetic and IRYS COANDA design diffusers with strong coanda effect
- Silent units
- Easy installation and maintenance: all connections on the same side. Electrical box and valves outside of the unit
- Low built-in-height
- Perfect integration into standard 600 x 600 ceiling tiles*
- Valves and drain pump factory mounted

* From 20 to 40 with IRYS COANDA diffusers.

Optional controller. WRC remote control.

Optional controller. SRC - mini BMS controller.

Optional controller. Electronic controller TControl POD glass.

Optional controller. Electronic controller TControl EASY 3S.

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

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

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

SEE PAGE 96 FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

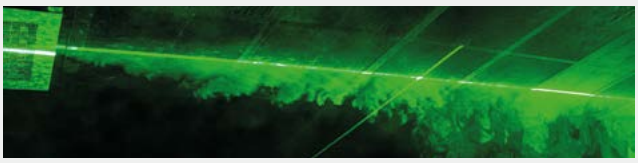
IRYS COANDA diffusers.

For a unique design and a strong coanda effect.

IRYS COANDA 360.
360° air diffusion.

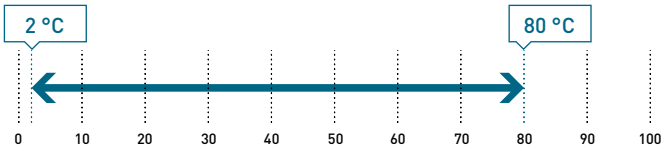
IRYS COANDA 180.
180° air diffusion.

Coanda effect measurements taken in our Panasonic development center.

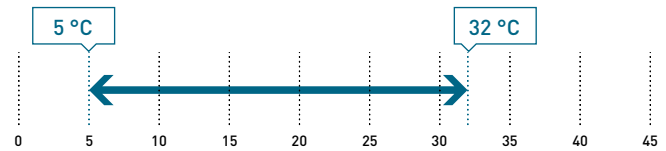


Operating limits

Entering water temperature (without glycol).



Indoor air temperature.



AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical features

Fan coil cassette AC fan			P-FQ20	P-FQ30	P-FQ40	P-FQ50	P-FQ60	P-FQ70
			R3/R2/R1 [1]	R3/R2/R1 [1]	R3/R2/R1 [1]	R3/R2/R1 [1]	R3/R2/R1 [1]	R3/R2/R1 [1]
2-pipes								
Total cooling capacity [2]		kW	1,54/1,76/2,36	1,87/2,87/3,99	2,78/3,49/4,69	3,35/4,43/6,07	3,69/5,46/7,18	4,04/6,48/8,61
Sensible capacity [2]		kW	1,29/1,48/1,98	1,41/2,17/3,04	2,08/2,67/3,62	2,52/3,35/4,47	2,67/4,06/5,42	2,97/4,85/6,34
Water flow [2]		l/h	265/303/404	323/493/683	478/597/801	576/762/1042	636/937/1233	695/1111/1476
Water pressure drop [2]		kPa	4,0/5,0/10,0	3,0/7,0/14,0	6,0/10,0/18,0	7,0/12,0/22,0	3,0/6,0/11,0	5,0/12,0/20,0
Heating capacity [3]		kW	1,92/2,17/2,74	1,94/3,15/3,68	3,16/3,92/5,28	3,80/5,08/6,84	3,85/6,26/8,51	4,38/7,95/10,28
Water flow [3]		l/h	331/374/472	334/543/634	544/675/909	655/875/1178	663/1078/1466	754/1369/1771
Water pressure drop [3]		kPa	6,0/7,0/10,0	3,0/9,0/11,0	7,0/10,0/17,0	8,0/13,0/22,0	3,0/8,0/14,0	6,0/17,0/26,0
4-pipes								
Total cooling capacity [2]		kW	1,29/1,48/1,97	1,99/2,68/3,37	2,55/3,21/4,00	—	2,97/4,96/6,63	3,17/6,01/7,55
Sensible capacity [2]		kW	1,18/1,38/1,84	1,49/2,07/2,65	2,03/2,58/3,30	—	2,23/3,77/5,06	2,38/4,68/5,95
Water flow [2]		l/h	232/258/359	342/465/576	437/563/683	—	511/851/1137	543/1030/1294
Water pressure drop [2]		kPa	6,0/8,0/13,0	4,0/7,0/11,0	6,0/10,0/15,0	—	5,0/14,0/24,0	6,0/20,0/30,0
Heating capacity [4]		kW	1,09/1,27/1,67	3,10/4,40/5,46	4,32/5,00/5,80	—	5,28/7,79/10,04	6,43/10,07/12,77
Water flow [4]		l/h	94/109/144	267/379/470	372/431/500	—	455/671/865	554/867/1100
Water pressure drop [4]		kPa	15,0/17,0/28,0	7,0/13,0/20,0	13,0/17,0/23,0	—	4,0/7,0/11,0	5,0/11,0/16,0
Sound levels								
Sound power	2-pipes	dB(A)	38/42/49	35/47/53	42/48/57	35/40/49	38/46/54	40/52/59
	4-pipes	dB(A)	37/41/49	35/47/53	42/48/57	—	38/46/54	40/52/59
Sound pressure [5]	2-pipes	dB(A)	27/31/40	26/35/44	33/39/48	26/31/40	29/37/45	31/43/50
	4-pipes	dB(A)	27/31/40	26/35/44	33/39/48	—	29/37/45	31/43/50
NR [5]	2-pipes		23/27/35	20/30/39	28/34/43	21/26/35	22/32/40	25/38/50
	4-pipes		23/27/35	20/30/39	28/34/43	—	22/32/40	25/38/45
Ventilation								
Number of fans			1	1	1	1	1	1
Air flow		m³/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	50/60	50/60	50/60	50/60	50/60	50/60
Consumption	2-pipes	W	25/35/58	17/34/58	38/58/99	28/41/66	34/61/88	44/92/125
	4-pipes	W	25/35/58	17/34/58	38/58/99	—	34/61/88	44/92/125
Electric heater		W	1500	2500	2500	2x1500	2x1500	2x1500
Water connections								
Connection type			Gas female threaded	Gas female threaded	Gas female threaded	Gas female threaded	Gas female threaded	Gas female threaded
2 or 4-pipes	Cooling	Inch	¾	¾	¾	1	1	1
4-pipes	Heating	Inch	½	½	½	—	¾	¾
Dimensions								
With IRYS COANDA 180	L x W x H	mm	595 x 595 x 353	595 x 595 x 353	595 x 595 x 353	849 x 849 x 366	849 x 849 x 366	849 x 849 x 366
With IRYS COANDA 360	L x W x H	mm	595 x 595 x 341	595 x 595 x 341	595 x 595 x 341	849 x 849 x 358	849 x 849 x 358	849 x 849 x 358
With plastic diffuser	L x W x H	mm	720 x 720 x 334	720 x 720 x 334	720 x 720 x 334	960 x 960 x 339	960 x 960 x 339	960 x 960 x 339
Weight								
Weight		kg	14,8	16,5	16,5	37,1	37,1	39,6

1) Fan speeds. 2) According to Eurovent standard. Air: 27 °C DB/19 °C WB, chilled water: 7 °C/12 °C. 3) According to Eurovent standard. Air: 20 °C, hot water: 45 °C/40 °C. 4) According to Eurovent standard. Air: 20 °C, hot water: 65 °C/55 °C. 5) Informative data, considering an hypothetical sound attenuation of the room and installation of 9 dB(A).

Accessories and options
2 way or 3 way valves
Auxiliary drain pan
Electric heaters (from 1500 W to 3000 W)
Electromechanical sensor for automatic change over
Fresh air intake
G4 filter
IRC: infrared remote control for Plogic
Modbus communication board for Plogic

Accessories and options
Plastic or metallic (IRYS COANDA) diffusers (mandatory)
SRC - mini BMS controller
Plogic controller (other electromechanical or electronic control systems also available)
TControl EASY 3S and TControl POD glass controllers (other electromechanical or electronic control systems also available)
WRC: wall-mounted remote control for Plogic

ErP SUPER QUIET ErP compliant following COMMISSION REGULATION (EU) 2016/2281.

Specifications subject to change without notice. For detailed information about ErP / Energy Labelling, please visit our websites www.aircon.panasonic.eu or www.ptc.panasonic.eu.

Fan coil cassette EC fan

Fan coil cassette units with cooling and heating.

Cooling capacity: 1,3 to 9,6 kW.
Heating capacity: 1,1 to 14,0 kW.

Optional controller.
WRC remote control.

Optional controller.
SRC - mini BMS controller.

Optional controller.
Electronic controller TControl POD glass.

Optional controller.
Electronic controller TControl EASY 3S.

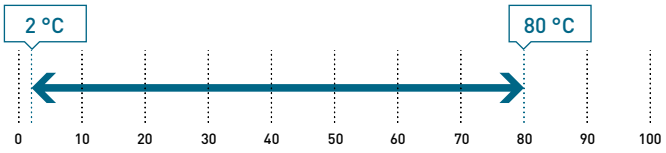
Optional controller.
Wired remote controller with touch control.
PAW-FC-907EC

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

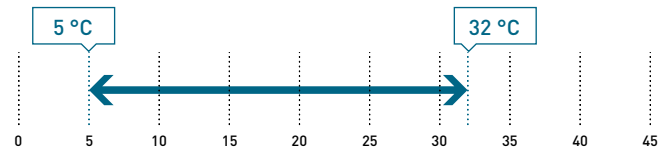
SEE PAGE 96 FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

Operating limits

Entering water temperature (without glycol).



Indoor air temperature.



The range at a glance

- Versions: 2-pipes, 2-pipes + electric heater and 4-pipes
- 6 sizes
- Low energy consumption EC fan: 100% controllable via a 0-10 V signal or 3 operating speeds
- Air flow from 360 to 1598 m³/h
- Integrated condensate drain pump
- G1 cleanable air filter

Advantages

- Excellent performances: FCEER and FCCOP up to "A"
- Aesthetic and IRYS COANDA design diffusers with strong coanda effect
- Silent units
- Easy installation and maintenance: all connections on the same side. Electrical box and valves outside of the unit
- Low built-in-height
- Perfect integration into standard 600 x 600 ceiling tiles*
- Valves and drain pump factory mounted

* From 20 to 40 with IRYS COANDA diffusers.

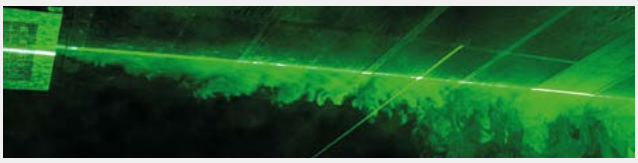
IRYS COANDA diffusers.

For a unique design and a strong coanda effect.

IRYS COANDA 360.
360° air diffusion.

IRYS COANDA 180.
180° air diffusion.

Coanda effect measurements taken in our Panasonic development center.



AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical features

Fan coil cassette EC fan			P-FQ20	P-FQ30	P-FQ40	P-FQ50	P-FQ60	P-FQ70
			2V / 6V / 10V [1]	2V / 6V / 10V [1]	2V / 6V / 10V [1]	2V / 6V / 10V [1]	2V / 6V / 10V [1]	2V / 6V / 10V [1]
2-pipes								
Total cooling capacity [2]		kW	1,55 / 1,77 / 2,38	1,88 / 2,88 / 4,00	2,79 / 3,51 / 4,71	3,36 / 4,44 / 6,09	3,71 / 5,48 / 7,20	4,05 / 6,51 / 9,61
Sensible capacity [2]		kW	1,30 / 1,49 / 2,00	1,42 / 2,18 / 3,05	2,09 / 2,69 / 3,64	2,53 / 3,36 / 4,49	2,69 / 4,08 / 5,44	2,98 / 4,88 / 7,21
Water flow [2]		l/h	267 / 306 / 409	325 / 497 / 688	481 / 604 / 808	579 / 765 / 1050	640 / 944 / 1243	700 / 1119 / 1649
Water pressure drop [2]		kPa	4,0 / 5,0 / 10,0	3,0 / 7,0 / 14,0	6,0 / 10,0 / 18,0	7,0 / 12,0 / 22,0	3,0 / 6,0 / 11,0	5,0 / 12,0 / 25,0
Heating capacity [3]		kW	1,92 / 2,17 / 2,74	1,94 / 3,15 / 3,68	3,16 / 3,92 / 5,28	3,80 / 5,08 / 6,84	3,85 / 6,26 / 8,51	4,38 / 7,95 / 11,03
Water flow [3]		l/h	331 / 374 / 472	334 / 543 / 634	544 / 675 / 909	655 / 875 / 1178	663 / 1078 / 1466	754 / 1369 / 1900
Water pressure drop [3]		kPa	6,0 / 7,0 / 10,0	3,0 / 9,0 / 11,0	7,0 / 10,0 / 17,0	8,0 / 13,0 / 22,0	3,0 / 8,0 / 14,0	6,0 / 17,0 / 29,0
4-pipes								
Total cooling capacity [2]		kW	1,30 / 1,49 / 1,99	2,00 / 2,69 / 3,38	2,56 / 3,23 / 4,02	—	2,99 / 4,98 / 6,65	3,18 / 6,04 / 7,97
Sensible capacity [2]		kW	1,19 / 1,39 / 1,86	1,50 / 2,08 / 2,66	2,04 / 2,60 / 3,32	—	2,25 / 3,79 / 5,08	2,39 / 4,71 / 6,34
Water flow [2]		l/h	234 / 262 / 344	344 / 464 / 581	442 / 556 / 690	—	516 / 858 / 1144	549 / 1041 / 1366
Water pressure drop [2]		kPa	6,0 / 8,0 / 13,0	4,0 / 7,0 / 11,0	6,0 / 10,0 / 15,0	—	5,0 / 14,0 / 24,0	6,0 / 20,0 / 33,0
Heating capacity [4]		kW	1,09 / 1,27 / 1,67	3,10 / 4,40 / 5,46	4,32 / 5,00 / 5,80	—	5,28 / 7,79 / 10,00	6,43 / 10,67 / 13,99
Water flow [4]		l/h	94 / 109 / 144	267 / 379 / 470	372 / 431 / 500	—	455 / 671 / 865	554 / 867 / 1205
Water pressure drop [4]		kPa	13,0 / 17,0 / 28,0	7,0 / 13,0 / 20,0	13,0 / 17,0 / 23,0	—	4,0 / 7,0 / 11,0	5,0 / 11,0 / 19,0
Sound levels								
Sound power	2-pipes	dB(A)	36 / 40 / 49	35 / 44 / 53	42 / 48 / 57	35 / 40 / 49	38 / 46 / 54	40 / 52 / 61
	4-pipes	dB(A)	36 / 40 / 49	35 / 44 / 53	42 / 48 / 57	—	38 / 46 / 54	40 / 52 / 61
Sound pressure [5]	2-pipes	dB(A)	27 / 31 / 40	26 / 35 / 44	33 / 39 / 48	26 / 31 / 40	29 / 37 / 45	31 / 43 / 50
	4-pipes	dB(A)	27 / 31 / 40	26 / 35 / 44	33 / 39 / 48	—	29 / 37 / 45	31 / 43 / 50
NR [5]	2-pipes		23 / 27 / 35	20 / 30 / 39	28 / 34 / 43	21 / 26 / 35	22 / 32 / 40	25 / 38 / 45
	4-pipes		23 / 27 / 35	20 / 30 / 39	28 / 34 / 43	—	22 / 32 / 40	25 / 38 / 45
Ventilation								
Number of fans			1	1	1	1	1	1
Air flow		m³/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 / 60	50 / 60	50 / 60	50 / 60	50 / 60	50 / 60
Consumption	2-pipes	W	9 / 13 / 29	7 / 14 / 33	13 / 23 / 57	7 / 12 / 25	9 / 23 / 45	11 / 40 / 115
	4-pipes	W	9 / 13 / 29	7 / 14 / 32	13 / 22 / 57	—	9 / 23 / 45	11 / 40 / 115
Electric heater		W	1500	2500	2500	2x1500	2x1500	2x1500
Water connections								
Connection type			Gas female threaded	Gas female threaded	Gas female threaded	Gas female threaded	Gas female threaded	Gas female threaded
2 or 4-pipes	Cooling	Inch	¾	¾	¾	1	1	1
4-pipes	Heating	Inch	½	½	½	—	¾	¾
Dimensions								
With IRYS COANDA 180	L x W x H	mm	595 x 595 x 353	595 x 595 x 353	595 x 595 x 353	849 x 849 x 366	849 x 849 x 366	849 x 849 x 366
With IRYS COANDA 360	L x W x H	mm	595 x 595 x 341	595 x 595 x 341	595 x 595 x 341	849 x 849 x 358	849 x 849 x 358	849 x 849 x 358
With plastic diffuser	L x W x H	mm	720 x 720 x 334	720 x 720 x 334	720 x 720 x 334	960 x 960 x 339	960 x 960 x 339	960 x 960 x 339
Weight								
Weight		kg	14,8	16,5	16,5	37,1	37,1	39,6

Energy efficiency class [6]

Fan coil cassette EC fan							
2-pipes	**FCEER**	**B**	**A**	**B**	**A**	**A**	**A**
	FCCOP	**B**	**B**	**B**	**A**	**A**	**A**
4-pipes	**FCEER**	**B**	**A**	**B**	**—**	**A**	**B**
	FCCOP	**C**	**A**	**B**	**—**	**A**	**A**

1) Fan standard factory set speeds (voltage). 2) According to Eurovent standard. Air: 27 °C DB/19 °C WB, chilled water: 7 °C/12 °C. 3) According to Eurovent standard. Air: 20 °C, hot water: 45 °C/40 °C.
4) According to Eurovent standard. Air: 20 °C, hot water: 65 °C/55 °C. 5) Informative data, considering an hypothetical sound attenuation of the room and installation of 9 dB(A). 6) According to Eurovent.

Accessories and options
2 way or 3 way valves
Auxiliary drain pan
Ecospeed card for EC fans
Electric heaters (from 1500 W to 3000 W)
Electromechanical sensor for automatic change over
Fresh air intake
G4 filter
IRC: infrared remote control for Plogic

Accessories and options
Modbus communication board for Plogic
Plastic or metallic (IRYS COANDA) diffusers (mandatory)
SRC - mini BMS controller
Plogic controller (other electromechanical or electronic control systems also available)
TControl EASY 3S and TControl POD glass controllers (other electromechanical or electronic control systems also available)
WRC: wall-mounted remote control for Plogic

ErP
EC MOTOR GREEN VENTILATION
SUPER QUIET
VERY HIGH PERFORMANCE

ErP compliant following COMMISSION REGULATION (EU) 2016/2281.

Specifications subject to change without notice. For detailed information about ErP / Energy Labelling, please visit our websites www.aircon.panasonic.eu or www.ptc.panasonic.eu.

Fan coil wall AC fan

Fan coil wall-mounted units with cooling and heating.

Cooling capacity: 1,0 to 4,0 kW.
Heating capacity: 1,4 to 4,5 kW.

Optional controller. WRC remote control.

Optional controller. SRC - mini BMS controller.

Optional controller. Electronic controller TControl POD glass.

Optional controller. Electronic controller TControl EASY 3S.

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

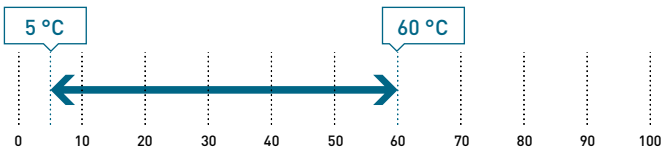
Optional controller. Wired remote controller.
PAW-FC-903AC

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

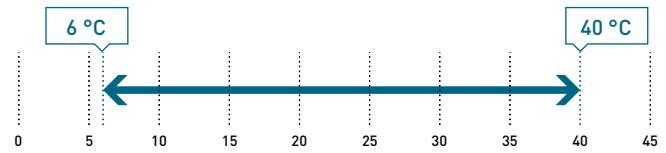
SEE PAGE 96 FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

Operating limits

Entering water temperature (without glycol).



Indoor air temperature.



The range at a glance

- Versions (2-pipes): infrared without valve (IR SV), infrared with valve (IR AV) and terminal block without valve (TB SV)
- 4 sizes
- 3-speed AC fan
- Air flow from 280 to 850 m³/h
- G1 cleanable air filter

Advantages

- Reversible
- Aesthetic design
- Light for easy installation
- Silent units
- Very easy servicing through a removable front panel
- Cleanable synthetic-type air filter

Accessories and options
2 way or 3 way valves
Modbus communication board for Plogic
SRC - mini BMS controller
Plogic controller (other electromechanical or electronic control systems also available)
TControl EASY 3S and TControl POD glass controllers (other electromechanical or electronic control systems also available)
WRC: wall-mounted remote control for Plogic

AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical features

Fan coil wall AC fan			P-FW07	P-FW09	P-FW18	P-FW22
			S2/S3/S4 [1]	S2/S3/S4 [1]	S2/S3/S4 [1]	S2/S3/S4 [1]
2-pipes, without valve						
Total cooling capacity [2]		kW	1,00/1,34/1,69	1,58/1,79/2,50	2,78/3,05/3,60	2,93/3,29/4,00
Sensible capacity [2]		kW	0,72/0,97/1,20	1,21/1,37/1,87	2,12/2,39/2,74	2,28/2,62/3,11
Water flow [2]		l/h	172/231/291	270/308/431	479/525/620	505/565/687
Water pressure drop [2]		kPa	18,6/24,9/31,4	18,5/21,4/31,0	34,6/40,0/52,3	37,2/42,8/54,9
Heating capacity [3]		W	1,42/1,62/1,72	1,68/1,92/2,80	2,99/3,30/4,10	3,18/3,63/4,50
Water flow [3]		l/h	245/279/296	289/331/482	515/568/706	548/625/775
Water pressure drop [3]		kPa	17,6/23,4/26,5	21,4/23,5/28,6	39,9/46,3/64,7	41,7/55,0/85,8
Sound levels						
Sound power		dB(A)	45/49/51	40/43/52	47/50/54	50/55/60
Sound pressure [4]		dB(A)	30/33/35	32/36/40	39/41/43	39/43/48
NR [4]		dB(A)	32/36/38	34/39/44	40/43/46	43/46/50
Ventilation						
Number of fans			1	1	1	1
Air flow		m³/h	282/321/360	367/413/551	532/592/680	617/709/850
Filter			G1	G1	G1	G1
Electrical data						
Power supply	Voltage	V	230	230	230	230
	Phase		Single phase	Single phase	Single phase	Single phase
	Frequency	Hz	50	50	50	50
Consumption	Cooling	W	39/42/62	30/33/40	44/48/53	50/55/69
	Heating	W	39/42/62	27/30/50	42/45/60	46/51/66
Water connections						
Connection type			Gas female threaded	Gas female threaded	Gas female threaded	Gas female threaded
Connections		Inch	½	½	½	½
Dimensions and weight						
Dimension	L x W x H	mm	845 x 180 x 275	845 x 180 x 275	940 x 200 x 298	940 x 200 x 298
Weight		kg	11	11	13	13

Fan coil wall AC fan			P-FW09	P-FW22
			S2/S3/S4 [1]	S2/S3/S4 [1]
2-pipes, with valve				
Total cooling capacity [2]		kW	1,11/1,25/1,40	2,32/2,68/3,10
Sensible capacity [2]		kW	0,91/1,08/1,25	1,68/1,98/2,28
Water flow [2]		l/h	191/215/241	400/460/532
Water pressure drop [2]		kPa	14,9/16,8/18,8	42,4/50,8/61,5
Heating capacity [3]		W	1,29/1,61/2,00	2,51/2,75/3,30
Water flow [3]		l/h	222/277/344	432/474/568
Water pressure drop [3]		kPa	16,1/21,3/28,2	45,8/48,6/54,1
Sound levels				
Sound power		dB(A)	44/50/54	53/57/60
Sound pressure [4]		dB(A)	32/36/40	39/43/48
NR [4]		dB(A)	27/31/37	34/37/41
Ventilation				
Number of fans			1	1
Air flow		m³/h	150/250/400	290/400/600
Filter			G1	G1
Electrical data				
Power supply	Voltage	V	230	230
	Phase		Single phase	Single phase
	Frequency	Hz	50	50
Consumption	Cooling	W	35/38/43	50/58/69
	Heating	W	30/33/43	50/58/69
Water connections				
Connection type			Gas female threaded	Gas female threaded
Connections		Inch	½	½
Dimensions and weight				
Dimension	L x W x H	mm	845 x 180 x 275	940 x 200 x 298
Weight		kg	11	13

1) Fan standard factory set speeds. 2) According to Eurovent standard. Air: 27 °C DB/19 °C WB, chilled water: 7 °C/12 °C. 3) According to Eurovent standard. Air: 20 °C, hot water: 45 °C/40 °C. 4) Informative data, considering an hypothetical sound attenuation of the room and installation of 9 dB(A).

ErP compliant following COMMISSION REGULATION (EU) 2016/2281.

Specifications subject to change without notice. For detailed information about ErP / Energy Labelling, please visit our websites www.aircon.panasonic.eu or www.ptc.panasonic.eu.

Fan coil duct EC fan

Fan coil medium static pressure ductable units with cooling and heating.

Cooling capacity: 0,7 to 6,7 kW.
Heating capacity: 0,5 to 7,1 kW.

The range at a glance

- Versions: 2-pipes, 2-pipes + electric heater and 4-pipes
- 6 sizes
- Low energy consumption EC fan: 100% controllable via a 0-10 V signal or 3 operating speeds
- Air flow from 82 to 1293 m³/h
- Static pressure up to 120 Pa
- Many air inlet/outlet configurations
- Left or right water / electric connections

Advantages

- Excellent performances: FCEER and FCCOP up to "A"
- Silent units: internal acoustic and thermal insulation
- Highly customisable: many aeraulic configurations and selection of hydraulic, and electric service side
- Ease of installation: very low height (223 mm)
- Easy maintenance: direct access to the internal components
- Mono-bloc drain pan
- 100% factory tested

Optional controller.
WRC remote control.

Optional controller.
SRC - mini BMS controller.

Optional controller.
Electronic controller TControl POD glass.

Optional controller.
Electronic controller TControl EASY 3S.

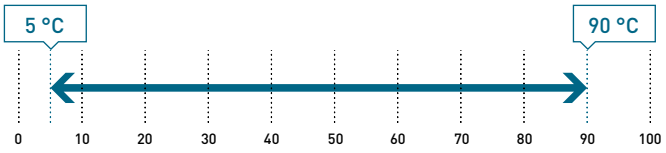
Optional controller.
Wired remote controller with touch control.
PAW-FC-907EC

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

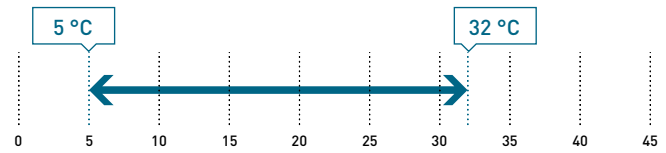
SEE PAGE 96 FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

Operating limits

Entering water temperature (without glycol).

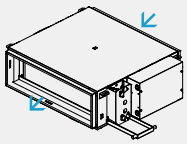


Indoor air temperature.

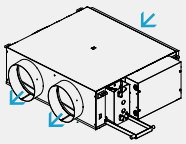


Air inlet/outlet configurations.

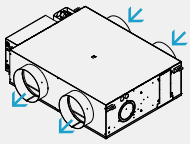
I configurations.



Rectangular return and discharge (standard).

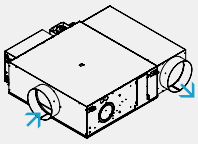


Rectangular return and circular discharge.



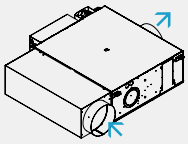
Circular return and discharge.

J configuration.



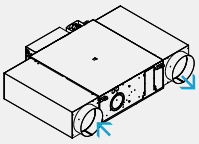
Circular return and discharge.

L configuration.



Circular return and discharge.

U configuration.



Circular return and discharge.

AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical features

Fan coil duct EC fan			P-FD10	P-FD15	P-FD20	P-FD25	P-FD30	P-FD40
			2V/7,35V/10V [1]	3,8V/6,00V/8,2V [1]	4,8V/7,15V/8,9V [1]	3,1V/3,9V/4,85V [1]	2V/6V/10V [1]	2,1V/5,5V/10V [1]
2-pipes								
Total cooling capacity [2]		kW	0,7/1,2/1,5	1,39/1,88/2,06	1,83/2,42/2,74	2,42/2,77/3,2	1,90/3,66/4,80	2,4/4,94/6,66
Sensible capacity [2]		kW	0,67/1,08/1,36	1,16/1,6/1,96	1,46/1,92/2,21	1,96/2,24/2,63	1,42/2,82/3,68	1,8/4,1/6,13
Water flow [2]		l/h	121/207/258	239/324/355	315/416/472	416/477/551	327/630/827	413/851/1148
Water pressure drop [2]		kPa	2,38/5,29/7,52	6,1/9,3/10,5	9,5/15,5/19,5	19,7/25,3/33,1	15,2/44/70,3	8,2/29,7/51,7
Heating capacity [3]		kW	0,51/1,28/1,82	1,45/2,07/2,55	2,07/2,47/2,59	2,58/3,02/3,39	1,90/3,83/5,01	2,4/5,1/7,06
Water flow [3]		l/h	87,8/220/313	250/357/439	357/425/446	444/520/584	327/660/863	410/878/1216
Water pressure drop [3]		kPa	1,54/5,85/10,3	6,5/10,6/14,3	11,9/16,1/17,6	22,3/30/37,3	10,3/37,6/62,8	8,2/31,4/57,6
4-pipes								
Total cooling capacity [2]		kW	0,71/1,35/1,58	1,34/1,78/2,18	1,78/2,38/2,74	2,19/2,69/2,94	1,72/3,54/4,57	2,22/4,76/6,37
Sensible capacity [2]		kW	0,67/1,20/1,42	1,11/1,52/1,73	1,42/1,9/2,22	1,73/2,16/2,39	1,24/2,61/3,39	1,77/4,02/5,63
Water flow [2]		l/h	122/233/272	231/307/376	306/410/472	377/463/506	296/610/787	382/821/1097
Water pressure drop [2]		kPa	2,43/6,36/8,18	5,8/8,5/11,4	9,1/15,1/19,5	13,3/19,4/22,9	8,6/32,4/52,7	7,2/27,8/57,1
Heating capacity [4]		kW	0,65/1,66/2,16	1,79/2,54/2,88	2,6/3,02/3,12	3,16/3,59/4,03	1,73/3,27/4,10	2,64/5,05/6,61
Water flow [4]		l/h	56/143/186	154/219/248	224/260/269	308/344/385	149/282/353	227/435/569
Water pressure drop [4]		kPa	1,36/4,88/7,24	5,9/11,1/13,9	12,1/18/19,7	11,5/14,9/18,9	3,27/12,3/19,6	3,5/37,3/120
Sound levels								
Sound power return + radiated [5]	2-pipes	dB(A)	31/52/55	44/55/60	46/57/61	50/55/61	40/58/64	42/58/68
	4-pipes	dB(A)	29/52/55	44/55/60	50/57/61	50/55/61	40/58/64	43/58/68
Sound power discharge [5]	2-pipes	dB(A)	31/51/55	41/52/58	50/57/61	50/56/61	36/56/64	39/57/70
	4-pipes	dB(A)	34/51/57	41/52/58	50/57/61	50/56/61	36/56/64	38/54/70
Sound pressure [6]	2-pipes	dB(A)	<20/35/38	26/37/42	31/40/44	33/39/44	20/39/47	23/39/52
	4-pipes	dB(A)	<20/35/38	26/37/42	31/40/44	33/39/44	20/39/47	24/39/52
NR [6]	2-pipes		9/30/33	21/32/37	26/35/39	28/34/39	15/34/42	18/34/47
	4-pipes		6/30/33	21/32/37	26/35/39	28/34/39	15/34/42	19/34/47
Ventilation								
Number of fans			1	1	1	1	1	1
Air flow [5]	2-pipes	m³/h	82/247/357	255/383/491	360/501/599	448/541/642	300/738/1068	347/848/1293
	4-pipes	m³/h	85/292/384	228/351/452	331/467/560	413/503/602	255/654/943	319/802/1228
External static pressure	2-pipes	Pa	3,3/30/62,6	22/50/82	26/50/72	34/50/70	8/50/105	8/50/116
	4-pipes	Pa	2,5/30/51,8	21/50/83	25/50/72	34/50/72	8/50/104	8/50/117
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
Consumption	2-pipes	W	7/19/35	11/29/56	19/50/70	25/41/64	9/65/163	10/62/197
	4-pipes	W	7/20/36	11/28/53	20/47/76	26/41/69	8/60/147	10/60/188
Electric heater		W	500	600/1000	600/1000	1000/2000	1000/2000	1250/2500
Water connections								
Connection type			Gas Female threaded	Gas Female threaded	Gas Female threaded	Gas Female threaded	Gas Female threaded	Gas Female threaded
2 or 4-pipes	Cooling	Inch	½	½	½	½	½	¾
4-pipes	Heating	Inch	½	½	½	½	½	½
Dimensions and weight								
Dimension without drain pan	L x W x H	mm	633 x 631 x 223	733 x 631 x 223	833 x 631 x 223	933 x 631 x 223	933 x 631 x 223	1233 x 653 x 223
Weight		kg	14	16	18	20	22	29

Energy efficiency class [7]

Fan coil duct EC fan							
2-pipes	**FCEER**	**C**	**B**	**B**	**B**	**—**	**A**
	FCCOP	**C**	**A**	**B**	**A**	**—**	**A**
4-pipes	**FCEER**	**C**	**B**	**B**	**B**	**—**	**A**
	FCCOP	**C**	**A**	**A**	**A**	**—**	**A**

1) Fan standard factory set speeds (voltage). 2) According to Eurovent standard. Air: 27 °C DB/19 °C WB, chilled water: 7 °C/12 °C. 3) According to Eurovent standard. Air: 20 °C, hot water: 45 °C/40 °C.
4) According to Eurovent standard. Air: 20 °C, hot water: 65 °C/55 °C. 5) According to Eurovent 6/10 (air flow test method) and 8/12 (sound test method). 6) Informative data, considering an hypothetical sound attenuation of the room and installation of 21 dB(A). 7) According to Eurovent.
* Data with I configuration with rectangular return and discharge and G2 (DT10/15/20/25/30) or G3 (DT40) filter.

Accessories and options
2 way or 3 way valves
Circuit breakers
Condensate drain pump
Ecospeed card for EC fans
Electric heaters (from 500 W to 2500 W)
Fresh air intake
Fuse holder
G2/G3 filter

Accessories and options
Many air inlet/outlet configurations
Electromechanical sensor for automatic change over
Modbus communication board for Plogic
Other speeds configuration (standard factory set speeds in technical features table)
SRC - mini BMS controller
Suspension kit

Accessories and options
Plogic controller (other electromechanical or electronic control systems also available)
TControl EASY 3S and TControl POD glass controllers (other electromechanical or electronic control systems also available)
WRC: wall-mounted remote control for Plogic

ErP
EC MOTOR GREEN VENTILATION
SUPER QUIET
VERY HIGH PERFORMANCE

ErP compliant following COMMISSION REGULATION (EU) 2016/2281.

Specifications subject to change without notice. For detailed information about ErP / Energy Labelling, please visit our websites www.aircon.panasonic.eu or www.ptc.panasonic.eu.

Fan coil high static duct AC fan

Fan coil high static pressure ductable units with cooling and heating.

Cooling capacity: 4,1 to 24,8 kW.
Heating capacity: 4,1 to 25,0 kW.

Optional controller. WRC remote control.

Optional controller. SRC - mini BMS controller.

Optional controller. Electronic controller TControl POD glass.

Optional controller. Electronic controller TControl EASY 3S.

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

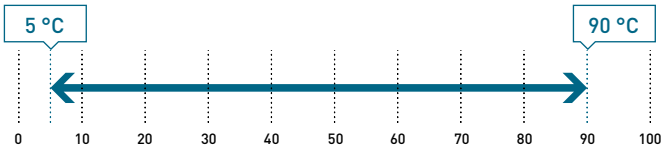
Optional controller. Wired remote controller.
PAW-FC-903AC

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

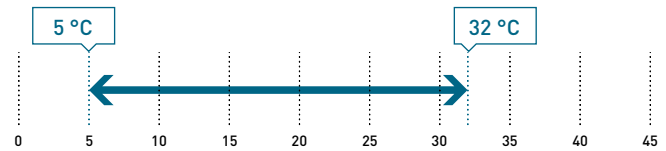
+ SEE PAGE 96 FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

Operating limits

Entering water temperature (without glycol).



Indoor air temperature.



The range at a glance

- Versions: 2-pipes, 2-pipes + electric heater and 4-pipes
- 6 sizes
- 5 or 4-speed AC fan - standard factory set speeds. 07/15/18/21: S1,S3,S5 (5-speed fan motor) and 24/27: S1,S2,S3 (4-speed fan motor)
- Air flow from 586 to 3451 m³/h
- High available static pressure up to 220 Pa
- Left or right water / electric connections

Advantages

- Very low acoustic level at low speed (double skin insulation available as an accessory)
- Selection of hydraulic and electric service side
- Ease of installation and maintenance
- 100% factory tested

Accessories and options
2 way or 3 way valves
Auxiliary drain pan
Circuit breakers
Condensate drain pump
Double skin acoustic insulation
Electric heaters (from 1000 W to 3000 W)
Fresh air intake
Fuse holder
G3/G4 filter
Inlet and outlet plenums for circular ducts (07 only)
Electromechanical sensor for automatic change over
Modbus communication board for Plogic
Other speeds configuration (standard factory set speeds in technical features table)
SRC - mini BMS controller
Suspension kit
Plogic controller (other electromechanical or electronic control systems also available)
TControl EASY 3S and TControl POD glass controllers (other electromechanical or electronic control systems also available)
WRC: wall-mounted remote control for Plogic

AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical features

Fan coil high static duct AC fan			P-FH07	P-FH15	P-FH18	P-FH21	P-FH24	P-FH27
			S1/S3/S5 [1]	S1/S3/S5 [1]	S1/S3/S5 [1]	S1/S3/S5 [1]	S1/S2/S3 [1]	S1/S2/S3 [1]
2-pipes								
Total cooling capacity [2]		kW	4,43/5,32/5,59	6,9/11,48/13,33	6,32/11,48/13,87	7,07/13,7/17	14,78/16,67/19,03	16,4/18,9/21,9
Sensible capacity [2]		kW	3,14/3,97/4,25	5,04/9,19/11,23	4,94/9,48/11,89	4,93/9,94/12,5	10,68/12,27/14,23	11,4/13,3/15,5
Water flow [2]		l/h	765/919/965	1191/1982/2302	1091/1982/2395	1221/2365/2935	2552/2878/3286	2832/3263/3781
Water pressure drop [2]		kPa	27,4/39,2/43,5	7,9/19,8/26,1	6,8/19,6/27,6	8,5/28,7/43,5	14,7/18,3/23,3	13,6/17,6/23
Heating capacity [3]		kW	4,06/5,53/6,7	6,6/12/15,48	7,2/14/18,01	6,95/13,9/17,8	15/17,4/20,9	15,4/17,9/21,5
Water flow [3]		l/h	701/955/1157	1140/2072/2673	1243/2417/3110	1200/2400/3073	2590/3004/3609	2659/3091/3712
Water pressure drop [3]		kPa	24,1/43,5/63,2	5/17,9/26,3	6,1/16,1/24,3	12,4/21,8/34,1	11,4/21,9/28,1	10,7/21/27,3
4-pipes								
Total cooling capacity [2]		kW	4,05/4,84/5,08	6,38/10,08/11,33	6,77/11,18/12,83	7,75/14,38/17,43	13,68/15,27/17,13	14,78/16,77/19,13
Sensible capacity [2]		kW	2,86/3,57/3,8	4,76/8,42/10,13	5,01/9,13/11,13	5,45/10,58/13,23	10,18/11,67/13,33	10,68/12,27/14,23
Water flow [2]		l/h	699/836/877	1102/1740/1956	1169/1930/2215	1338/2483/3009	2362/2637/2958	2552/2896/3303
Water pressure drop [2]		kPa	31/43/47,2	5,8/13,3/16,9	6,9/17,1/22,6	11,1/34,9/50,9	15,3/18,8/23,3	13,5/17/21,5
Heating capacity [4]		kW	5,5/7/7,7	9,6/17/21	9,7/17,06/21	9,7/17,1/21	10,9/12,9/15,2	18,5/25/29,6
Water flow [4]		l/h	475/604/665	829/1468/1813	837/1473/1813	837/1476/1813	941/1114/1312	1597/2158/2555
Water pressure drop [4]		kPa	9/13,3/15	32,7/92,1/134	20,2/56,1/80	20,2/56,1/80	30,8/39/49,5	38,8/67,2/82
Sound levels								
Sound power return + radiated [5]	2-pipes	dB(A)	57/60/63	52/66/72	54/66/74	52/66/72	65/69/73	65/69/73
	4-pipes	dB(A)	54/60/63	52/66/72	52/66/72	52/66/72	65/69/73	65/69/73
Sound power discharge [5]	2-pipes	dB(A)	53/59/62	52/64/71	52/64/71	52/74/71	64/67/72	64/67/72
	4-pipes	dB(A)	53/59/62	52/64/71	52/64/71	52/64/71	64/67/72	64/67/72
Sound pressure [6]	2-pipes	dB(A)	33/39/42	31/45/51	31/45/51	31/45/51	44/48/52	44/48/52
	4-pipes	dB(A)	33/39/42	31/45/51	31/45/51	31/45/51	44/48/52	44/48/52
NR [6]	2-pipes		27/34/37	27/40/47	27/40/47	27/40/47	40/44/48	40/44/48
	4-pipes		27/34/37	27/40/47	27/40/47	27/40/47	40/44/48	40/44/48
Ventilation								
Number of fans			1	1	1	1	1	1
Filter			G3	G3	G3	G3	G3	G3
Air flow [5]	2-pipes	m^3/h	703/977/1125	960/2112/2830	960/2112/2830	960/2112/2830	2040/2413/2925	2040/2413/2925
	4-pipes	m^3/h	586/824/974	960/2112/2830	960/2112/2830	960/2112/2830	2040/2413/2925	2040/2413/2925
External static pressure	2-pipes	Pa	30/50/70	15/50/90	15/50/90	15/50/90	35/50/75	35/50/75
	4-pipes	Pa	25/50/70	15/50/90	15/50/90	15/50/90	35/50/75	35/50/75
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
Consumption		W	132/182/222	180/421/675	180/421/675	180/421/675	420/530/673	420/530/673
Electric heater		W	2000	3000	3000	3000	3000	3000
Water connections								
Connection type			Gas Female threaded	Gas Male threaded	Gas Male threaded	Gas Male threaded	Gas Male threaded	Gas Male threaded
2-pipes		Inch	½	1	1 ¼	1 ¼	1 ¼	1 ¼
4-pipes	Cooling	Inch	½	1	1	1	1 ¼	1 ¼
	Heating	Inch	½	¾	¾	¾	¾	¾
Dimensions and weight								
Dimension	L x W x H	mm	1200 x 698 x 250	1380 x 798 x 375	1380 x 798 x 375	1380 x 798 x 375	1500 x 798 x 450	1500 x 798 x 450
Weight		kg	42	63	65	67	76	80

1) Fan standard factory set speeds. 2) According to Eurovent standard. Air: 27 °C DB/19 °C WB, chilled water: 7 °C/12 °C. 3) According to Eurovent standard. Air: 20 °C, hot water: 45 °C/40 °C. 4) According to Eurovent standard. Air: 20 °C, hot water: 65 °C/55 °C. 5) According to Eurovent 6/10 (air flow test method) and 8/12 (sound test method). 6) Informative data, considering an hypothetical sound attenuation of the room and installation of 21 dB(A).
* Data with I configuration with rectangular return and discharge.

ErP
SUPER QUIET
ErP compliant following COMMISSION REGULATION (EU) 2016/2281.

Fan coil high static duct EC fan

Fan coil high static pressure ductable units with cooling and heating.

Cooling capacity: 3,2 to 21,9 kW.
Heating capacity: 2,5 to 24,1 kW.

The range at a glance

- Versions: 2-pipes, 2-pipes + electric heater and 4-pipes
- 6 sizes
- Low energy consumption EC fan: 100% controllable via a 0-10 V signal or 3 operating speeds
- Air flow from 320 to 3568 m³/h
- High available static pressure up to 220 Pa
- Left or right water / electric connections

Advantages

- Excellent performances: FCEER and FCCOP up to "A"
- Very low acoustic level at low speed (double skin insulation available as an accessory)
- Selection of hydraulic and electric service side
- Ease of installation and maintenance
- 100% factory tested

Optional controller.
WRC remote control.

Optional controller.
SRC - mini BMS controller.

Optional controller.
Electronic controller TControl POD glass.

Optional controller.
Electronic controller TControl EASY 3S.

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

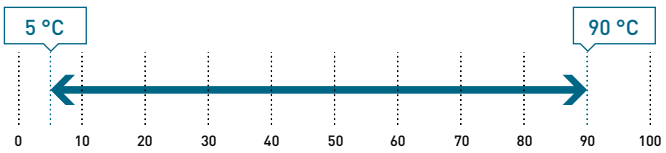
Optional controller.
Wired remote controller.
PAW-FC-903EC

SEE PAGE 96 FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

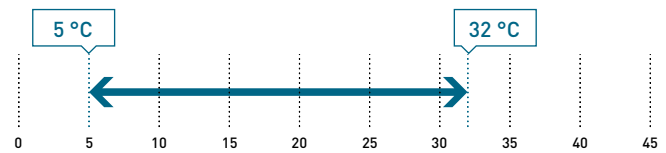
Accessories and options
2 way or 3 way valves
Auxiliary drain pan
Circuit breakers
Condensate drain pump
Double skin acoustic insulation
Electric heaters (from 1000 W to 3000 W)
Fresh air intake
Fuse holder
G3/G4 filter
Inlet and outlet plenums for circular ducts (07 only)
Electromechanical sensor for automatic change over
Modbus communication board for Plogic
Other speeds configuration (standard factory set speeds in technical features table)
SRC - mini BMS controller
Suspension kit
Plogic controller (other electromechanical or electronic control systems also available)
TControl EASY 3S and TControl POD glass controllers (other electromechanical or electronic control systems also available)
WRC: wall-mounted remote control for Plogic

Operating limits

Entering water temperature (without glycol).



Indoor air temperature.



AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical features

Fan coil high static duct EC fan			P-FH07	P-FH15	P-FH18	P-FH21	P-FH24	P-FH27
			3,33V/5,87V/8,67V [1]	2V/4V/5V [1]	2V/4V/5V [1]	2V/4V/5V [1]	2V/5V/7V [1]	2V/5V/7V [1]
2-pipes								
Total cooling capacity [2]		kW	3,26/4,90/5,88	7,93/10,1/11,1	8,98/11,7/12,8	9,79/12,7/13,9	10,6/16,1/17,6	11,7/18,1/19,9
Sensible capacity [2]		kW	2,05/3,59/4,56	6,08/8,05/8,9	6,71/9,02/10	7,14/9,55/10,60	7,84/12,4/13,7	8,43/13,6/15,1
Water flow [2]		l/h	562/844/1013	1369/1744/1917	1551/2020/2210	1690/2193/2400	1826/2780/3039	2022/3125/3436
Water pressure drop [2]		kPa	15/33,5/48,1	13,2/19,8/23	9,1/14,2/16,7	10,2/15,4/17,9	8,04/18,4/21,4	7,58/19,1/22,5
Heating capacity [3]		kW	2,47/5,61/9,26	8,66/11,7/13	9,48/13,1/14,6	9,99/14,1/15,8	10,9/17,6/19,5	11,6/19,1/21,4
Water flow [3]		l/h	425/966/1595	1495/2020/2245	1637/2262/2521	1725/2435/2728	1872/3039/3367	1993/3298/3695
Water pressure drop [3]		kPa	7,2/33,7/89,0	12,2/20,6/24,9	8,2/14,2/17,3	8,3/15/18,5	10,9/21,5/25,8	6,38/17,1/20,9
4-pipes								
Total cooling capacity [2]		kW	3,22/4,74/5,54	6,57/8,21/8,91	7,4/9,26/10	8,92/11,3/12,4	9,51/14/15,2	10,2/15,3/16,8
Sensible capacity [2]		kW	2,12/3,48/4,25	5,2/6,76/7,43	5,7/7,48/8,24	6,66/8,75/9,64	7,13/11/12,1	7,52/11,8/13,1
Water flow [2]		l/h	555/817/954	1134/1418/1538	1278/1599/1727	1540/1951/2141	1642/2417/2624	1761/2642/2901
Water pressure drop [2]		kPa	20,6/41,4/55,3	6,6/10,2/12	8/11,2/12,7	11,2/16,7/19,4	9,4/18,7/21,9	6,6/13,9/16,4
Heating capacity [4]		kW	3,93/6,81/9,05	5,85/7,45/8,13	10/12,9/14,2	10/11,9/14,2	8/11,9/13	7,71/11,7/12,9
Water flow [4]		l/h	338/586/779	505/643/702	863/1114/1226	863/1114/1226	691/1027/1122	666/1010/1114
Water pressure drop [4]		kPa	5,6/12,5/19,5	14,1/21,4/25	23/35/40,9	22,8/34,8/40,8	13,5/27,5/32,1	5,2/11,3/13,4
Sound levels								
Sound power return + radiated [5]	2-pipes	dB(A)	54/60/63	56/65/67	56/65/67	56/65/67	58/69/73	58/69/73
	4-pipes	dB(A)	54/60/63	56/65/67	56/65/67	56/65/67	58/69/73	58/69/73
Sound power discharge [5]	2-pipes	dB(A)	53/59/62	56/64/65	56/64/65	56/64/65	58/67/72	58/67/72
	4-pipes	dB(A)	53/59/62	56/64/65	56/64/65	56/64/65	58/67/72	58/67/72
Sound pressure [6]	2-pipes	dB(A)	33/39/42	35/44/46	35/44/46	35/44/46	37/48/52	37/48/52
	4-pipes	dB(A)	33/39/42	35/44/46	35/44/46	35/44/46	37/48/52	37/48/52
NR [6]	2-pipes		27/34/37	31/40/42	31/40/42	31/40/42	33/44/48	33/44/48
	4-pipes		27/34/37	31/40/42	31/40/42	31/40/42	33/44/48	33/44/48
Ventilation								
Number of fans			1	1	1	1	1	1
Filter			G3	G3	G3	G3	G3	G3
Air flow [5]	2-pipes	m³/h	347/849/1293	1360/2044/2335	1360/2044/2335	1360/2044/2335	1519/2700/3098	1519/2700/3098
	4-pipes	m³/h	320/803/1229	1360/2044/2335	1360/2044/2335	1360/2044/2335	1519/2700/3098	1519/2700/3098
External static pressure	2-pipes	Pa	8/50/116	22/50/65	22/50/65	22/50/65	16/50/66	16/50/66
	4-pipes	Pa	8/50/117	22/50/65	22/50/65	22/50/65	16/50/66	16/50/66
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
Consumption	2-pipes	W	10/62/197	61/172/246	61/172/246	61/172/246	57/237/364	57/237/364
	4-pipes	W	10/60/189	61/172/246	61/172/246	61/172/246	57/237/364	57/237/364
Electric heater		W	2000	3000	3000	3000	3000	3000
Water connections								
Connection type			Gas Female threaded	Gas Male threaded	Gas Male threaded	Gas Male threaded	Gas Male threaded	Gas Male threaded
2-pipes		Inch	½	1	1 ¼	1 ¼	1 ¼	1 ¼
4-pipes	Cooling	Inch	½	1	1	1	1 ¼	1 ¼
	Heating	Inch	½	¾	¾	¾	¾	¾
Dimensions and weight								
Dimension	L x W x H	mm	1200 x 698 x 250	1380 x 798 x 375	1380 x 798 x 375	1380 x 798 x 375	1500 x 798 x 450	1500 x 798 x 450
Weight		kg	42	63	65	67	76	80

Energy efficiency class [7]

Fan coil high static duct EC fan							
2-pipes	**FCEER**	—	**A**	**A**	**A**	**B**	**A**
	FCCOP	—	**A**	**A**	**A**	**A**	**A**
4-pipes	**FCEER**	—	**B**	**B**	**A**	**A**	**A**
	FCCOP	—	**B**	**A**	**A**	**B**	**B**

1) Fan standard factory set speeds (voltage). 2) According to Eurovent standard. Air: 27 °C DB/19 °C WB, chilled water: 7 °C/12 °C. 3) According to Eurovent standard. Air: 20 °C, hot water: 45 °C/40 °C. 4) According to Eurovent standard. Air: 20 °C, hot water: 65 °C/55 °C. 5) According to Eurovent 6/10 (Air flow test method) and 8/12 (Sound test method). 6) Informative data, considering an hypothetical sound attenuation of the room and installation of 9 dB(A). 7) According to Eurovent.
* Data with I configuration with rectangular return and discharge.

ErP
EC MOTOR GREEN VENTILATION
SUPER QUIET
VERY HIGH PERFORMANCE

ErP compliant following COMMISSION REGULATION (EU) 2016/2281.

Specifications subject to change without notice. For detailed information about ErP / Energy Labelling, please visit our websites www.aircon.panasonic.eu or www.ptc.panasonic.eu.

Smart fan coils

Smart fan coils units with cooling and heating.

Cooling capacity: 0,3 to 2,5 kW.
Heating capacity: 0,2 to 2,1 kW.

Built-in advanced thermostat.

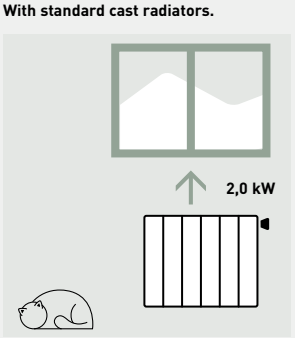
Accessories and options
Kits of 2 legs to protect the water pipings
Motor connection cable for units with hydraulic connections on the right

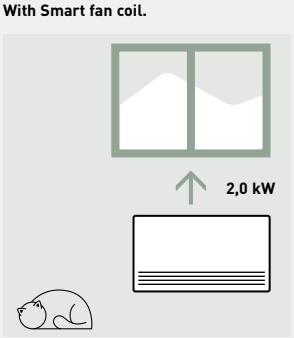
The range at a glance

- 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

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.





All temperature curves and capacity are available on www.panasonicproclub.com

PRO Club

Technical features

Smart fan coils			PAW-AAIR-200-2	PAW-AAIR-700-2	PAW-AAIR-900-2	PAW-AAIR-1100-2
Total cooling capacity	Lo/Med/Hi	kW	0,3/0,5/0,6	0,6/0,9/1,5	0,8/1,6/2,1	0,9/1,8/2,5
Sensible capacity	Lo/Med/Hi	kW	0,2/0,4/0,6	0,5/0,9/1,3	0,7/1,3/1,9	0,9/1,6/2,3
Water flow	Lo/Med/Hi	kg/h	51,1/89,4/106,3	96,0/155,2/251,1	140,8/267,2/365,7	158,1/300,3/423,6
Water pressure drop	Lo/Med/Hi	kPa	3,3/5,7/6,1	1,1/2,1/4,2	1,5/5,8/10,3	1,3/5,0/10,6
Inlet water temperature		°C	10	10	10	10
Outlet water temperature		°C	15	15	15	15
Inlet air temperature		°C	27	27	27	27
Outlet air temperature	Lo/Med/Hi	°C	12,8/13,2/14,9	14,6/14,8/14,0	15,8/14,6/14,4	18,1/15,2/14,7
Relative humidity of inlet air		%	47	47	47	47
Total heating capacity	Lo/Med/Hi	kW	0,2/0,4/0,5	0,4/0,8/1,2	0,6/1,2/1,6	0,8/1,4/2,1
Water flow	Lo/Med/Hi	kg/h	38,4/70,5/92,8	72,7/139,2/201,6	114,0/204,2/284,5	138,3/243,2/356,7
Water pressure drop	Lo/Med/Hi	kPa	1,0/2,3/3,0	0,5/1,5/3,1	1,0/3,3/6,6	1,1/3,1/7,3
Inlet water temperature		°C	35	35	35	35
Outlet water temperature		°C	30	30	30	30
Inlet air temperature		°C	19	19	19	19
Outlet air temperature	Lo/Med/Hi	°C	33,5/33,3/30,9	30,1/31,4/31,8	30,1/31,1/31,2	26,6/29,5/30,5
Air flow	Lo/Med/Hi	m³/h	54/114/162	156/252/318	246/366/462	372/456/576
Power supply	Voltage	V	230	230	230	230
	Phase		Single phase	Single phase	Single phase	Single phase
	Frequency	Hz	50/60	50/60	50/60	50/60
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	18,0/22,0/26,5
Sound pressure	Lo/Med/Hi	dB(A)	24/33/39	25/34/40	25/34/42	26/35/43
Dimension (H x W x D)		mm	579 x 735 x 129	579 x 935 x 129	579 x 1135 x 129	579 x 1335 x 129
Net weight		kg	17	20	23	26
3 Ways valve included			Yes	Yes	Yes	Yes
Touch screen thermostat			Yes	Yes	Yes	Yes

*** Smart fan coils is produced by Innova.**

Fan coil controllers

Panasonic has a wide, technological range of controllers and control systems suitable for installation within a wide variety of locations such as office, hotel, and residential applications. These controllers are compatible with AC and EC fans and allow users to take advantage of the improved performance and efficiency and thus energy savings. Most of our controllers have an intuitive user interface to easily setup the desired configurations.

1 Individual controllers

Thanks to these controllers it is possible to control one fan coil unit individually. All our controllers fall into this category. Depending on the model, they can have different features: possibility to set the desired temperature, compatibility with AC and EC fans, LCD display, wall or unit mounting.

2 Group controllers

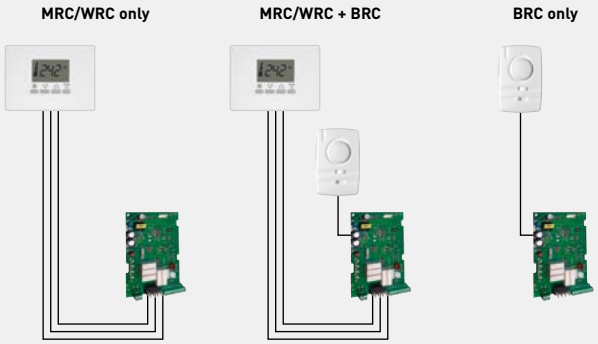
These controllers allow the control of more than one fan coil unit per controller but maintaining the same fan and temperature settings (a slight temperature variation is possible within the same zone). Plogic is the Panasonic group controller that allows you to control multiple units with a single control.

3 Centralized and group controller

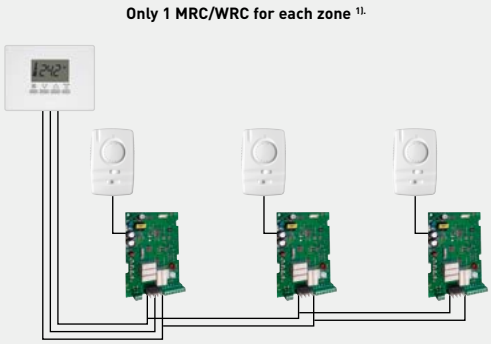
Due to the advanced technical capability, it is possible to control different climatic zones with different settings and ambient conditions. The combination of Plogic + BMS and SRC are the perfect example for this type of control.

Plogic (zone controller) with remote control

1| Plogic. Different individual control possibilities.

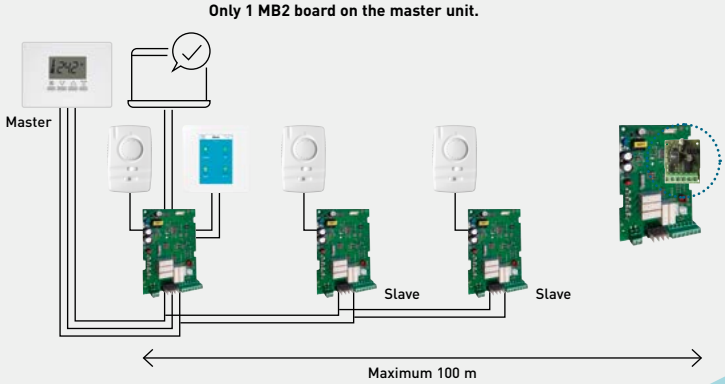


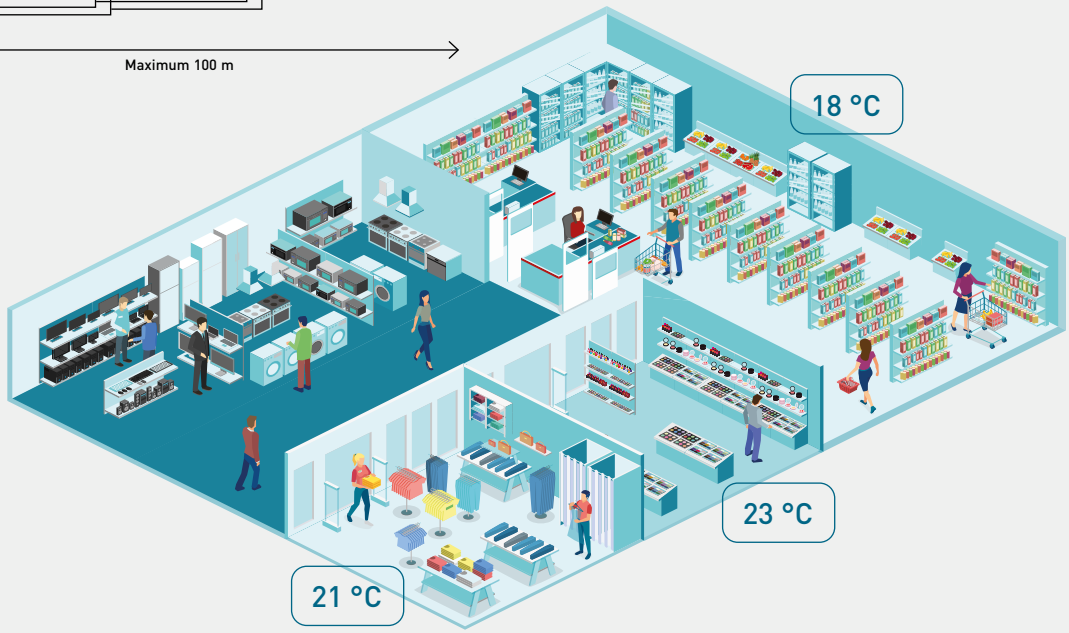
2| Plogic. Group control (without BMS).



1) Up to 15 Plogic/fan coil units. Fan coil units can be of different types, with AC or EC fan motor.

3| Centralized and group control with BMS and SRC.





Electro-mechanical and electronic control systems

	TRM-FA	Plogic
2-pipes (cooling or heating)	✔	✔
2-pipes heat pump	✔	✔ [1]
2-pipes cooling + electric heater (≤ 2000 W)	—	✔
2-pipes heat pump + electric heater (≤ 2000 W)	—	✔ [1]
4-pipes	✔	✔
Communication protocol	—	Modbus (with MB2 card)
SRC mini BMS compatibility	—	✔
Functions		
Changeover	Manual	Manual or Auto
Fan speed selection	Manual	Manual or Auto
Fan operation	Cyclic [3]	Continuous [4] or cyclic [3]
Master/slave	—	✔ Up to 15 slave units
Time programming	—	—
Fan compatibility		
AC	✔	✔
EC with ecospeed card	✔	—
EC 0-10 V	—	✔
Valve compatibility		
ON / OFF 230 V	✔	✔
Controller power supply		
230 V	—	✔
Mounting type		
Wall-mounted or mounted on the unit	Wall	Unit

1) Changeover Auto only with 2 or 4 way valves. 2) Changeover Auto only with 4 way valves. 3) Cyclic: fan stops when the set point is reached. 4) Continuous: fan continues running after the set point is reached.

SRC - mini BMS controller

Smart controller. Mini building management system.
- Supervise Panasonic fan coil units, chillers/heat pumps, air handling units and water source heat pumps [1]
- Can be used as a mini BMS or a remote control
- Manage up to 15 zones and 31 units
- Communicate via Modbus protocol
- Time programming function
- A modern and refined design
- 3,5'' color touch screen
- Wall mounting

1) Consult documentation for more details.

					
	TControl EASY 3S	**TControl POD glass**	**PAW-FC-RC1**	**PAW-FC-903EC PAW-FC-907EC**	**PAW-FC-903AC PAW-FC-907AC**
	✔	✔	✔	✔	✔
	✔ [2]	✔ [2]	—	—	—
	—	✔	—	—	—
	—	—	—	—	—
	✔	✔	✔	✔	—
	—	Modbus	Modbus	Modbus	—
	—	✔	✔	✔	—
	Manual or Auto	Manual or Auto	Manual or Auto	Manual	Manual
	Manual or Auto	Manual or Auto	Manual or Auto	Manual or Auto	Manual or Auto
	Continuous [4] or cyclic [3]	Continuous [4] or cyclic [3]	—	Continuous [4] or cyclic [3]	Continuous [4] or cyclic [3]
	—	—	—	—	—
	—	✔	—	—	—
	✔	✔	✔	—	✔
	✔	—	—	—	—
	—	✔	—	✔	—
	✔	✔	✔	✔	✔
	✔	✔	✔	✔	✔
	Wall (embedded)	Wall (surface or embedded)	Wall (embedded)	Wall (embedded)	Wall (embedded)

Remote controls

Plogic.
Wall mounting (surface) or mounted on the unit.

WRC / MRC [1]

BRC

IRC [1]

1) Integrated temperature sensor.

Compatibilities	Fan coil comfort	Fan coil cassette	Fan coil wall	Fan coil duct	Fan coil high static duct
TRM-FA	✔	✔	✔ [1]	✔	✔
Plogic	✔	✔	✔ [1]	✔	✔
TControl POD glass	✔	✔	✔ [1]	✔	✔
TControl EASY 3S	✔	✔	✔ [1]	✔	✔
PAW-FC-RC1	✔	✔	✔ [1]	✔	✔
PAW-FC-903EC PAW-FC-907EC	✔	✔	—	✔	✔
PAW-FC-903AC PAW-FC-907AC	✔	✔	✔ [1]	—	✔

1) Louvres must be manually operated with these controllers.

Note: Electrical heaters maximum power may vary according to the controller without a relay.

ECOi-LOOP

Water source heat pumps

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Water source heat pumps

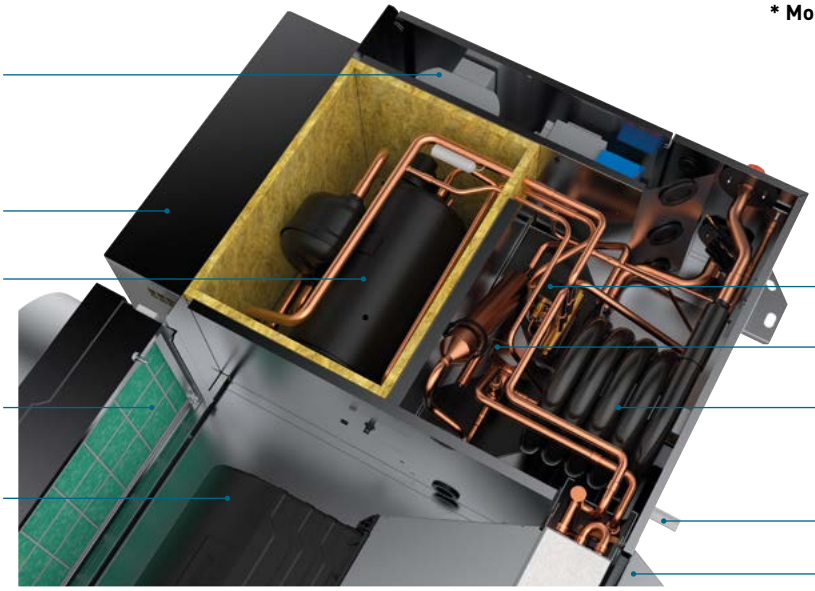
One building, different needs!
Water source heat pumps are ideal for best in class hotels, offices or shopping centers. This solution offers improved comfort by having several different indoor climates inside a building, while maintaining the energy through an internal closed water loop.

What is a water loop system with water source heat pumps?

The water loop system enables distributed cooling and heating production at different temperatures with a single water circuit.
The recovery of condensation heat units in cooling can used for units in heating and vice-versa, thus providing a balanced and highly efficient system. These indoor units are called water source heat pumps which are equipped with a compressor and 2 heat exchangers to allow energy transfer between the water loop and air within the space.

Environmentally friendly and economic

*** Model shown: ECOi-LOOP-N EVO.**



Key features for ECOi-LOOP.

- **High efficiency**
- **Heating and cooling of rooms at the same time. All units are connected to the same water loop**
- **Decentralised cool/heat production (closed water circuit)**
- **Water heater or cooling tower do not need to be operated as long as cooling and heating loads are roughly balanced. Temperature in the water loop will be kept between 16 and 32 °C**
- **Reduced refrigerant charge (no refrigerant pipes to an outdoor unit required)**
- **Low risk of leakage (hermetically sealed systems)**
- **Water source heat pumps can be easily added or removed without changing the system layout**
- **Each unit is autonomous and has its own controller allowing also its own safety**

Quick selection guide - Water source heat pumps

Page	Size	Cooling and heating capacity (kW)	NR sound levels (at MS)	Nominal air flow [1] (m³/h)	Pressure (Pa)	Fan	Dimensions (mm)
ECOi-LOOP C/H · R410A	15	1,5 / 1,9	26	435	0-140	EC	900 x 530 x 250 [2]
P. 106 	20	2,2 / 2,5	30	465	0-140	EC	900 x 530 x 250 [2]
	30	2,9 / 3,7	34	525	0-140	EC	900 x 530 x 250 [2]
ECOi-LOOP-N H · R513A	70	7,0 / 8,1	52	1727	0-495	EC	1142 x 762 x 516 [2]
	85	8,4 / 9,8	50	2165	0-495	EC	1142 x 762 x 516 [2]
	100	10,3 / 11,3	56	2826	0-335	EC	1333 x 818 x 580 [2]
P. 108 	110	11,2 / 12,5	54	3078	0-250	EC	1333 x 818 x 580 [2]
	120	12,1 / 13,8	55	3309	0-350	EC	1333 x 818 x 580 [2]
	135	13,3 / 14,6	57	3677	0-260	EC	1333 x 818 x 580 [2]
ECOi-LOOP-N EVO C/H · R513A							
P. 110 		2,9 / 3,8	25,8 [3]	525	0-140	EC	900 x 636 x 250 [2]

1) At high speed. 2) Without air inlet/outlet options. 3) At minimum thermal load. 4) Standard unit with cabinet and feet.

Page	Size	Cooling and heating capacity (kW)	NR sound levels (at MS)	Nominal air flow [1] (m³/h)	Pressure (Pa)	Fan	Dimensions (mm)
ECOi-LOOP HRW C/H · R407C **ECOi-LOOP HRWE H · R407C**	19	5,3 5,8	37	1250	>50	AC	900 x 600 x 439
	27	7,4 8,3	34	1190	>50	AC	1050 x 600 x 460
	27 HE	7,5 9,3	34	1180	>50	AC	1050 x 660 x 460
	30	8,7 9,8	35	1490	>100	AC	1050 x 660 x 460
	30 HE	8,9 10,0	35	1500	>100	AC	1050 x 660 x 460
	36	10,1 11,0	37	1580	>100	AC	1050 x 660 x 460
	36 HE	11,1 12,2	37	1580	>100	AC	1250 x 705 x 513
	42	11,4 14,4	40	2040	>100	AC	1250 x 705 x 513
	42 HE	12,5 14,5	40	2040	>100	AC	1250 x 705 x 513
 **P. 112**	48	13,0 14,9	43	2750	>100	AC	1250 x 705 x 513
	60	14,3 16,1	43	2840	>100	AC	1250 x 705 x 513
	60 HE	16,7 18,8	43	2840	>100	AC	1250 x 705 x 583
	72	17,1 21,5	39	3570	>100	AC	1250 x 705 x 513
	72 HE	20,6 22,6	39	3800	>100	AC	1680 x 955 x 770
	96	21,7 26,6	54	4700	>100	AC	1680 x 955 x 770
	96 HE	24,5 28,5	54	4700	>100	AC	1680 x 955 x 770
	20	30,0 38,1	53	5600	>200	AC	1680 x 955 x 770
ECOi-LOOP FS H · R407C	7	1,9 2,4	37	400	0	AC/EC	1138 x 251 x 821 [4]
 **P. 114**	9	2,1 2,5	38	460	0	AC/EC	1138 x 251 x 821 [4]
	12	2,7 3,2	40	510	0	AC/EC	1138 x 251 x 821 [4]
ECOi-LOOP-N FS H · R513A	7	1,7 1,8	34	340	0	AC/EC	1138 x 260 x 821 [4]
 **P. 116**	9	2,0 2,6	36	400	0	AC/EC	1138 x 260 x 821 [4]

1) At high speed. 2) Without air inlet/outlet options. 3) At minimum thermal load. 4) Standard unit with cabinet and feet.

ECOi-LOOP 15-30 C/H · R410A

Water source heat pumps cooling only and heat pump.

Cooling capacity: 1,5 to 2,9 kW.
Heating capacity: 1,9 to 3,7 kW.

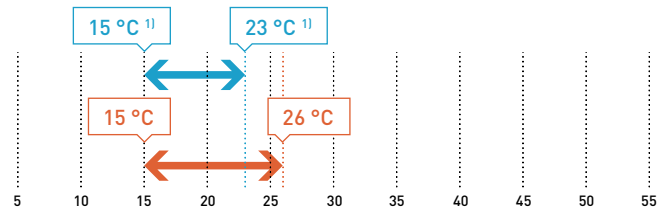
Optional controller.
RCS remote control.

Optional controller.
SRC - mini BMS controller.

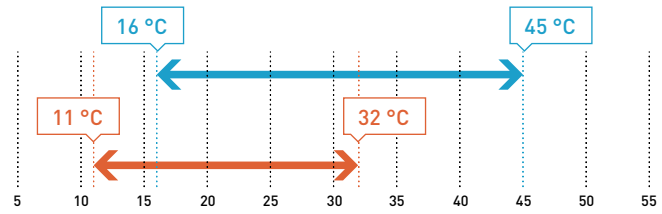
SEE PAGE 118 FOR MORE DETAILS ABOUT WATER SOURCE HEAT PUMPS CONTROL SYSTEMS

Operating limits

Air inlet temperature.



Water inlet temperature.



1) From 21 to 32 °C DB. * Maximum water pressure 10 bars.

The range at a glance

- 2 versions: C (cooling only) and H (heat pump)
- 3 sizes
- Horizontal installation
- Nominal air flow from 435 to 525 m³/h
- Many air and water configurations available
- 140 Pa maximum external static pressure
- Operating range: from 15 °C to 32 °C ambient air temperature
- Water inlet temperature from 11 °C to 45 °C

Advantages

- Very high performances: EER up to 5,05 and COP up to 5,70
- Low energy consumption EC fan
- In-line or perpendicular air flow
- Increased robustness: coaxial heat exchanger
- Easy access to the internal components: large electrical panel and filter accessible from 3 sides
- 100% factory tested

Equipment

- The refrigerant circuit comprises a rotary type hermetic compressor, a cycle reversal valve (H type only), a water/refrigerant heat exchanger, a liquid receiver, a capillary expansion device, a finned coil, HP and LP pressure switches and 2 Schrader valves (HP and LP)
- The rotary type hermetic compressor, mounted on spring anti-vibration mounts, is integrated in a compartment coated with reinforced acoustic insulation. It is also equipped with internal thermal protection
- The water/refrigerant heat exchanger is of copper/stainless steel coaxial type for an increased efficiency
- The units are equipped with a control system (POL423) utilising Modbus RTU
- The casing is made of galvanised steel sheet
- Condensate drain pan with an anti-corrosion treatment
- The electrical box is located on the hydraulic service side with a wide access panel
- The units are equipped with multi-position brackets for easy installation

AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical features

ECOi-LOOP 15-30 C - cooling only			P-LPE015CA	P-LPE020CA	P-LPE030CA
ECOi-LOOP 15-30 H - heat pump			**P-LPE015HA**	**P-LPE020HA**	**P-LPE0130HA**
Total cooling capacity [1]		W	1507	2151	2902
Sensible cooling capacity [1]		W	1371	1733	2355
EER			4,51	5,05	4,25
Heating capacity [2]		W	1934	2510	3680
COP			5,49	5,70	4,97
Ventilation					
Number of fans				1	
Nominal air flow		m³/h	435	465	525
Motor power		W	24	38	53
Air filter	Number / efficiency		1 / Basic or G3M1	1 / Basic or G3M1	1 / Basic or G3M1
Hydraulic circuit					
Water heat exchanger	Number / type		1 / coaxial	1 / coaxial	1 / coaxial
Maximum water pressure		bar	10	10	10
Nominal water flow		l/h	317	444	617
WPD at nominal water flow		kPa	8	12	18
Connections - inlet/outlet (Ø)		Inch	½ Gas male	½ Gas male	½ Gas male
Condensate outlet - external (Ø)		mm	16	16	16
Refrigerant circuit					
Number of refrigerant circuits			1	1	1
Compressor type			Rotary	Rotary	Rotary
Load		g	415	565	565
Electrical data					
Power supply	Voltage	V	230	230	230
	Phase		Single phase	Single phase	Single phase
	Frequency	Hz	50 ±10%	50 ±10%	50 ±10%
Input power [3]	Cooling	W	365	471	742
	Heating	W	389	491	806
Electric heating coil [4]	Number / capacity	- / W	1 / 600+600	1 / 800+800	1 / 1000+1000
	Input power	W	1200	1600	2000
Sound levels - without acoustic options					
Sound power - radiated	Lo / Med / Hi	dB(A)	41,9 / 43,1 / 44,4	42,7 / 44,5 / 46,5	45 / 46,8 / 48,9
Sound power - discharge	Lo / Med / Hi	dB(A)	45,6 / 49,1 / 53	49,1 / 53,6 / 58,3	51,7 / 57,2 / 61,9
Sound pressure [5]	Lo / Med / Hi	dB(A)	27,1 / 30 / 33,5	30 / 34,1 / 38,4	32,7 / 37,6 / 42
NR [5]	Lo / Med / Hi		22,4 / 25,7 / 29,4	25,8 / 30,1 / 34,4	28,6 / 33,6 / 37,9
Sound levels - with air outlet silencer and insulation around the fan					
Sound power - radiated	Lo / Med / Hi	dB(A)	42,3 / 43,2 / 44,5	42,7 / 44,4 / 46,5	44,4 / 46,6 / 48,9
Sound power - discharge	Lo / Med / Hi	dB(A)	32,2 / 35,2 / 38,5	34,7 / 38,5 / 42,5	36,1 / 40,6 / 44,6
Sound pressure [5]	Lo / Med / Hi	dB(A)	23,2 / 25 / 27,3	24,8 / 27,7 / 31	27 / 30,6 / 34
NR [5]	Lo / Med / Hi		18,8 / 20,4 / 22,7	20,1 / 23 / 26,4	23,2 / 25,9 / 29,5
Dimensions - without air inlet/outlet options					
Length		mm	900	900	900
Width		mm	530	530	530
Height		mm	250	250	250
Weight - without air inlet/outlet options					
Operating weight		kg	48	48	48

1) Nominal cooling capacities based on entering air temperature of 27 °C DB, 19 °C WB with entering water temperature of 30 °C. 2) Nominal heating capacities based on entering air temperature of 20 °C DB, 15 °C WB with entering water temperature of 20 °C. 3) Input power at nominal conditions (compressor + fan at high speed). 4) Electric heating coil is available as an option. 5) Informative data, considering an hypothetical sound attenuation of the room and installation of 21 dB(A). In-line configuration with filter.

Accessories and options
Air outlet silencer
Basic or G3M1 filter
Circuit breaker
Controller with BACnet MSTP (LON and Modbus TCP/IP available upon request)
Drain outlet
Drain pump
Electric heaters

Accessories and options
Flow switch control
Insulation around the fan
Many air inlet/outlet and water connection configurations
Pressostatic valve (cooling only)
RCS remote control (for controller with protocol communication)
Room temperature sensor
SRC - mini BMS controller

EC MOTOR GREEN VENTILATION | HIGH SEER 5,05 | HIGH SCOP 5,70 | ROTARY COMPRESSOR | COAXIAL HEAT EXCHANGER | SUPER QUIET | VERY HIGH PERFORMANCE

ECOi-LOOP-N 70-135 H · R513A

Water source heat pumps heat pump.

Cooling capacity: 7,0 to 13,3 kW.
Heating capacity: 8,1 to 14,6 kW.

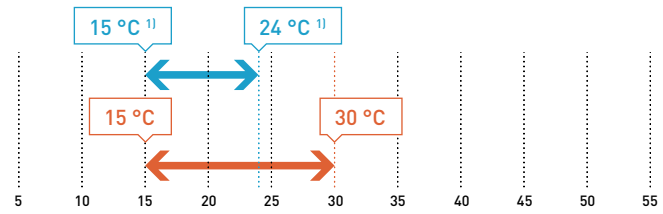
Optional controller.
RCS remote control.

Optional controller.
SRC - mini BMS controller.

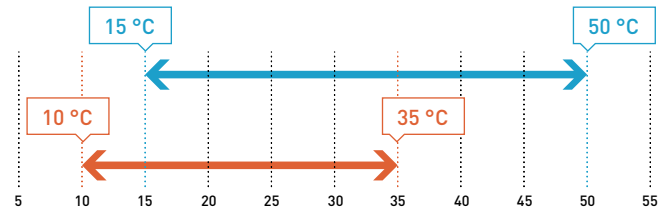
SEE PAGE 118 FOR MORE DETAILS ABOUT WATER SOURCE HEAT PUMPS CONTROL SYSTEMS

Operating limits

Air inlet temperature.



Water inlet temperature.



1) From 21 to 33 °C DB. * Maximum water pressure 10 bars.

The range at a glance

- 1 version: H (heat pump)
- 6 sizes
- Horizontal installation
- Nominal air flow from 1730 to 3680 m³/h
- In-line or perpendicular air flow
- Up to 495 Pa according to size
- Operating range: from 15 °C to 32 °C ambient air temperature
- Water inlet temperature from 11 °C to 45 °C

Advantages

- Very high performances: EER up to 3,95 and COP up to 4,58
- Low energy consumption EC fan
- Increased robustness: coaxial heat exchanger
- Easy access to the internal components: a wide removable panel allows an easy access to the electrical panel and the access to the filter is from the side of the unit, without removing the return duct
- 100% factory tested

Equipment

- The refrigerant circuit comprises a scroll type hermetic compressor, a cycle reversal valve, a water/refrigerant heat exchanger, a bi-flow thermostatic expansion valve, a finned coil, HP and LP pressure switches and 2 Schrader valves (HP and LP)
- The scroll type hermetic compressor, mounted on spring anti-vibration mounts, is integrated in a compartment coated with reinforced acoustic insulation. It is also equipped with internal thermal protection
- The water/refrigerant heat exchanger is of copper/stainless steel coaxial type for an increased efficiency
- The units are equipped with a control system (POL423) utilising Modbus RTU
- The casing is made of galvanised steel sheet.
- Condensate drain pan with an anti-corrosion treatment
- The electrical box is located inside the compressor compartment with a wide access panel

AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical features

ECOi-LOOP-N 70-135 H - heat pump			P-LPN070HA	P-LPN085HA	P-LPN100HA	P-LPN110HA	P-LPN120HA	P-LPN135HA
Total cooling capacity [1]		W	7011	8407	10290	11183	12105	13301
Sensible cooling capacity [1]		W	5960	7146	8541	9282	10047	11040
Total absorbed power [2]		W	1776	2275	2743	3234	3161	3784
EER Compressor			4,53	4,21	4,36	4,0	4,46	4,1
EER according to EN14511			3,95	3,7	3,75	3,46	3,83	3,52
Total heating capacity [3]		W	8069	9808	11307	12514	13834	14639
Total absorbed power [2]		W	1761	2256	2590	3073	3081	3467
COP Compressor			5,27	4,96	5,12	4,75	5,25	5,0
COP according to EN14511			4,58	4,35	4,37	4,07	4,49	4,22
Ventilation								
EC voltage		V	3,80	5,50	7,80	8,80	7,60	8,60
Air flow	Min (LS)	m³/h	1123	1407	1837	2001	2157	2390
	Med (MS)	m³/h	1425	1786	2331	2539	2730	3034
	Max (nominal) (HS)	m³/h	1727	2165	2826	3078	3309	3677
Static pressure		Pa	100	100	100	100	100	100
Fan absorbed power		W	328	393	552	631	617	737
Fan power		W	684	653	703	738	671	722
Air filter	Number / efficiency		1 / G2M1	1 / G2M1	1 / G2M1	1 / G2M1	1 / G2M1	1 / G2M1
Hydraulic circuit								
Water heat exchanger	Number / type		1 / coaxial	1 / coaxial	1 / coaxial	1 / coaxial	1 / coaxial	1 / coaxial
Maximum water pressure		Bar	10	10	10	10	10	10
Nominal water flow	Cooling [1]	l/h	1497	1818	2274	2508	2649	2957
	Heating [3]	l/h	1882	2256	2514	2738	3143	3463
Cutoff water flow	Cooling	l/h	749	909	1137	1254	1325	1479
	Heating	l/h	941	1128	1257	1369	1572	1732
WPD at nominal water flow	Cooling [1]	kPa	35,9	49,8	39,6	46,6	30,6	38,3
	Heating [3]	kPa	52,7	71,3	46,8	53,9	43,4	53
Hydraulic connections - inlet/outlet		Inch	1 Gas male	1 Gas male	1 Gas male	1 Gas male	1 Gas male	1 Gas male
Condensate outlet (Ø)		mm	19	19	19	19	19	19
Refrigerant circuit								
Number of refrigerant circuits			1	1	1	1	1	1
Compressor type			Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Load		g	1040	1165	1108	1116	1355	1363
Electrical data								
Power supply	Voltage	V	400	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50
Maximum current without heating		A	12,8	13,4	15,6	18,2	17,3	18,1
Starting current		A	53,5	53,5	53,5	78,5	71,4	78,4
Sound levels								
Sound power Lw - radiated	Lo / Med / Hi	dB(A)	60,6/65/65,4	59,5/65,3/66,1	61/66,9/69,4	62,1/67,7/10,4	58/62,6/67,4	58,8/63,9/68,8
Sound power Lw - discharge	Lo / Med / Hi	dB(A)	53,8/62,9/71	62,8/69,5/73,6	68,4/72,7/77,1	68,8/72,6/77,2	64,5/69,3/73,5	65,7/71,2/75,6
Sound power Lw	Lo / Med / Hi	dB(A)	63,7/68,1/72,6	65,5/71,4/74,7	69,6/74,1/78,1	70,1/74,3/78,5	66,5/70,9/75,1	67,5/72,7/77
Sound pressure Lp [4]	Lo / Med / Hi	dB(A)	49/54,3/56,2	49,5/54,3/56,4	55,3/58,8/62,6	54,4/57,6/61,9	52,5/56,8/60,5	52,7/58,5/62,1
NR [4]	Lo / Med / Hi		45,9/51,5/51,2	45,9/49,9/50,9	52,3/55,5/58,5	52,3/54,4/59,1	50,7/55,2/58,4	50,7/56,9/60,3
Dimensions - without air inlet/outlet options								
Length		mm	1142	1142	1333	1333	1333	1333
Width		mm	762	762	818	818	818	818
Height		mm	516	516	580	580	580	580
Weight								
Operating weight		kg	134	134	153	153	160	160

1) Nominal cooling capacities based on entering air temperature of 27 °C DB, 19 °C WB with entering water temperature of 30 °C. 2) Input power at nominal conditions (compressor + fan at high speed).
3) Nominal heating capacities based on entering air temperature of 20 °C DB, 15 °C WB with entering water temperature of 20 °C. 4) Informative data, considering an hypothetical sound attenuation of the room and installation of 21 dB(A). In-line configuration with filter.

Accessories and options
G2M1 filter or G3 filter
Circuit breaker
Controller with BACnet MSTP or BACnet IP (LON and Modbus TCP/IP available upon request)
Drain pump
Electric heaters

Accessories and options
Flow switch control
General default report
Many air configurations
RCS remote control (for controller with protocol communication)
Room temperature sensor
SRC - mini BMS controller

EC MOTOR GREEN VENTILATION | HIGH SEER 3,95 | HIGH SCOP 4,58 | SCROLL COMPRESSOR | COAXIAL HEAT EXCHANGER | SUPER QUIET | VERY HIGH PERFORMANCE

ECOi-LOOP-N EVO C/H · R513A

Water source heat pumps cooling only and heat pump.

Cooling capacity: 1,7 to 2,9 kW.
Heating capacity: 2,0 to 3,8 kW.

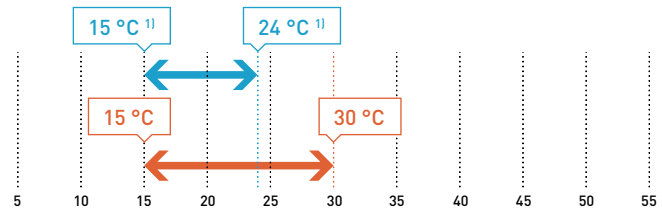
Optional controller.
RCS remote control.

Optional controller.
SRC - mini BMS controller.

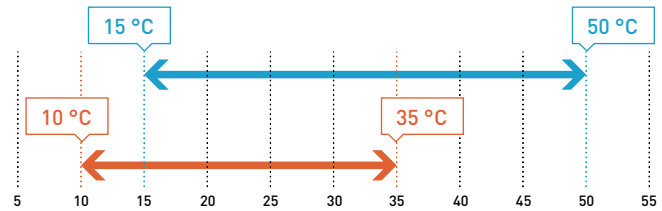
+ SEE PAGE 118 FOR MORE DETAILS ABOUT WATER SOURCE HEAT PUMPS CONTROL SYSTEMS

Operating limits

Air inlet temperature.



Water inlet temperature.



1) From 21 to 33 °C DB. * Maximum water pressure 10 bars.

The range at a glance

- Unique size available in C (cooling only) or H (heat pump) versions
- Horizontal installation
- Air flow from 290 to 525 m³/h
- Inverter compressor technology
- Many air and water configurations available
- 140 Pa maximum external static pressure
- Operating range: from 15 °C to 32 °C ambient air temperature
- Water inlet temperature from 11 °C to 45 °C

Advantages

- Eco-friendly: R513A refrigerant with very low GWP (631) and low energy consumption EC fan
- Economic: Inverter compressor adapting its speed according to the required capacity
- Extra silent unit: NR<26 at low speed and reinforced insulation
- Very high-performance: EER up to 4,25 and COP up to 4,53
- Low height for an easy integration: only 250 mm
- Highly customisable: many aeraulic configurations and selection of the hydraulic service side
- Increased robustness: coaxial heat exchanger
- Easy access to the internal components: large electrical panel and filter accessible from 3 sides
- 100% factory tested

Equipment

- The refrigerant circuit comprises an Inverter rotary type hermetic compressor, a cycle reversal valve (for H type), a water/refrigerant heat exchanger, a liquid receiver, a thermostatic expansion valve, a finned coil, HP and LP pressure switches and 2 Schrader valves (HP and LP)
- The Inverter rotary type hermetic compressor, mounted on spring anti-vibration mounts, is integrated in a compartment coated with reinforced acoustic insulation. It is also equipped with internal thermal protection
- The water/refrigerant heat exchanger is of copper/stainless steel coaxial type for an increased efficiency
- The unit is equipped with a complete control system (Modbus RTU or BACnet MSTP protocol communication)
- The casing is made of galvanised steel sheet
- Condensate drain pan with an anti-corrosion treatment
- The electrical box is located on the hydraulic service side with a wide access panel
- The units are equipped with multi-position brackets for easy installation

Technical features

ECOi-LOOP-N EVO C - cooling only			P-LPVNCA
ECOi-LOOP-N EVO H - heat pump			**P-LPVNHA**
Total cooling capacity [1]	Min - Max [2]	W	1687 - 2948
Sensible cooling capacity [1]	Min - Max [2]	W	1363 - 2337
EER	Min - Max [2]		4,25 - 3,06
Heating capacity [3]	Min - Max [2]	W	2004 - 3769
COP	Min - Max [2]		4,53 - 3,45
Ventilation			
Number of fans			1
Nominal air flow (at low and high speeds)	Min - Max [2]	m³/h	290 - 525
Motor power (at low and high speeds)	Min - Max [2]	W	13 - 54
Air filter	Number / efficiency		1 / Basic or G3
Hydraulic circuit			
Water heat exchanger	Number / type		1 / coaxial
Maximum water pressure		bar	10
Nominal water flow	Cooling Min - Max [2]	l/h	354 - 662
	Heating Min - Max [2]	l/h	458 - 789
WPD at nominal water flow [4]	Cooling Min - Max [2]	kPa	9 - 19,5
	Heating Min - Max [2]	kPa	12,3 - 24,6
Connections - inlet/outlet (Ø)		Inch	½ Gas male
Condensate outlet - external (Ø)		mm	16
Refrigerant circuit			
Number of refrigerant circuits			1
Compressor type			Inverter rotary
Load		g	514
Electrical data			
Power supply	Voltage	V	230
	Phase		Single phase
	Frequency	Hz	50 ±10%
Input power [5]	Cooling Min - Max [2]	W	397 - 964
	Heating Min - Max [2]	W	442 - 1093
Electric heating coil [6]	Number / capacity Min - Max [2]	- / W	1 / 600 + 600 - 1 / 1000 + 1000
	Input power Min - Max [2]	W	1200 - 2000
Sound levels - without acoustic options			
Sound power - radiated	Min - Max [2]	dB(A)	41,9 - 51,5
Sound power - discharge	Min - Max [2]	dB(A)	47,9 - 62,8
Sound pressure [7]	Min - Max [2]	dB(A)	29,3 - 43
NR [7]	Min - Max [2]		25,8 - 39,2
Sound levels - with air outlet silencer and insulation around the fan			
Sound power - radiated	Min - Max [2]	dB(A)	42,3 - 51,6
Sound power - discharge	Min - Max [2]	dB(A)	33,2 - 44,4
Sound pressure [7]	Min - Max [2]	dB(A)	24,5 - 35
NR [7]	Min - Max [2]		19,5 - 30,4
Dimensions - without air inlet/outlet options			
Length		mm	900
Width		mm	636
Height		mm	250
Weight - without air inlet/outlet options			
Operating weight		kg	51

1) Nominal cooling capacities based on entering air temperature of 27 °C DB, 19 °C WB with entering water temperature of 30 °C. 2) Thermal load. 3) Nominal heating capacities based on entering air temperature of 20 °C DB, 15 °C WB with entering water temperature of 20 °C. 4) Without valve. 5) Input power at nominal conditions (compressor + fan at high speed). 6) Electric heating coil is available as an option. 7) Informative data, considering an hypothetical sound attenuation of the room and installation of 21 dB. In-line configuration with filter.

Accessories and options
Air outlet silencer
Basic or G3M1 filter
Circuit breaker
Drain outlet
Drain pump
Electric heaters
Flow switch control

Accessories and options
General default report
Insulation around the fan
Many air inlet/outlet and water connection configurations
RCS remote control (for controller with protocol communication)
Room temperature sensor
SRC - mini BMS controller

EC MOTOR GREEN VENTILATION | HIGH SEER 4,25 | HIGH SCOP 4,53 | INVERTER | COAXIAL HEAT EXCHANGER | INVERTER ROTARY COMPRESSOR | SUPER QUIET | VERY HIGH PERFORMANCE

ECOi-LOOP HRW C/H and ECOi-LOOP HRWE H · R407C

Water source heat pumps cooling only and heat pump.

Cooling capacity: 5,3 to 30,0 kW.
Heating capacity: 5,8 to 38,1 kW.

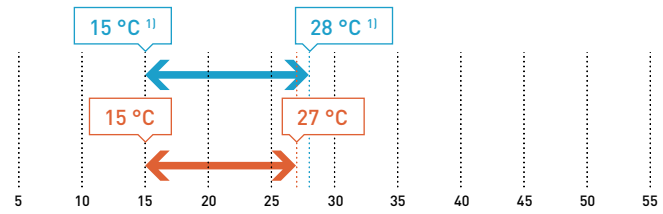
Optional controller.
RCS remote control.

Optional controller.
SRC - mini BMS controller.

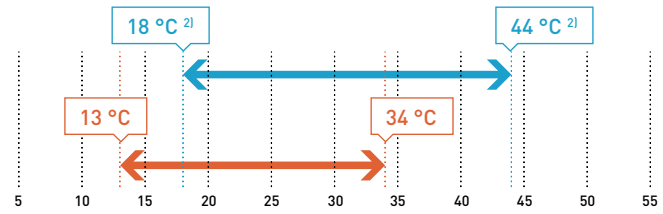
SEE PAGE 118 FOR MORE DETAILS ABOUT WATER SOURCE HEAT PUMPS CONTROL SYSTEMS

Operating limits

Air inlet temperature.



Water inlet temperature.



1) From 21 to 38 °C DB. 2) From 20 to 48 °C for 96-120. * Maximum water pressure 16 bars.

The range at a glance

- 2 versions: C (cooling only) and H (heat pump)
- 10 sizes
- Vertical installation
- Versions: standard or HE** (very high efficiency)
- Nominal air flow from 1180 to 5600 m^3/h
- AC fan: 3-speed direct drive fan motor for sizes 19 to 72 and belt drive with variable pitch pulley for sizes 96 and 120
- Operating range: from 15 °C to 38 °C ambient air temperature
- Water inlet temperature from 13°C to 48 °C

Advantages

- Low sound levels: acoustic insulation between ventilation and compressor compartments
- Very high efficiency versions (HE)*: EER up to 4,74 and COP up to 4,46
- In-line or perpendicular air flow
- Easy access to components through wide removable panels
- Condensate drain pan with an anti-corrosion treatment and a float-type safety system
- 100% factory tested

Equipment

- The refrigerant circuit comprises a scroll or rotary type hermetic compressor, a cycle reversal valve (for H type), a water/refrigerant heat exchanger, a liquid receiver, a bi-flow thermostatic expansion valve and a finned coil, HP and LP pressure switches and 2 Schrader valves (HP and LP)
- The rotary or scroll type hermetic compressor, mounted on rubber anti-vibration mounts, is integrated in a compartment coated with reinforced acoustic insulation. It is also equipped with internal thermal protection
- The units are equipped with a control system (POL423) utilising Modbus RTU
- The water/refrigerant heat exchanger is made of brazed stainless steel plates, for improved efficiency
- Condensate drain pan with an anti-corrosion treatment and a float-type safety system
- A G2-M1air filter is provided within the unit

* HE versions only available for heat pump units.

AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical features

ECOi-LOOP HRW C - cooling only	P-LPHM***CA		019	027	—	030	—	036	—	042	—	048	060	—	072	—	096	—	120
ECOi-LOOP HRW H - heat pump	**P-LPHM***HA**		**019**	**027**	**—**	**030**	**—**	**036**	**—**	**042**	**—**	**048**	**060**	**—**	**072**	**—**	**096**	**—**	**120**
ECOi-LOOP HRWE H - heat pump	**P-LPHEM***HA**		**—**	**—**	**027**	**—**	**030**	**—**	**036**	**—**	**042**	**—**	**—**	**060**	**—**	**072**	**—**	**096**	**—**
Total cooling capacity [1]		W	5278	7419	7320	8691	8710	10138	11060	11366	12500	12965	14344	16700	17174	20600	21743	24500	29951
Sensible cooling capacity [1]		W	4257	5824	5600	6315	6676	7278	9070	8849	9542	10051	10988	13900	13536	17700	17986	19500	24413
EER			4,20	3,72	4,00	3,77	4,15	3,77	4,31	3,44	4,00	4,03	3,23	4,44	3,26	4,74	3,84	4,61	4,21
Heating capacity [2]		W	5826	8342	9252	9759	9960	11036	12200	14422	14450	14904	16147	18800	21500	22600	26637	28500	38109
COP			4,40	3,69	4,21	3,50	4,30	3,38	4,28	3,84	4,36	4,25	3,33	4,20	3,15	4,23	3,54	4,46	4,25
Ventilation																			
Number of fans			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Nominal air flow		m³/h	1250	1190	1180	1490	1500	1580	1580	2040	2040	2750	2840	2840	3570	3800	4700	4700	5600
Motor power		W	450	450	450	950	950	950	950	950	950	1500	1500	1500	1500	736	1100	1100	1500
Air filter	Number / efficiency		2 / G2-M1	2 / G2-M1	2 / G2-M1	2 / G2-M1	2 / G2-M1	2 / G2-M1	2 / G2-M1	2 / G2-M1	2 / G2-M1	2 / G2-M1	2 / G2-M1	2 / G2-M1	2 / G2-M1	2 / G2-M1	2 / G2-M1	2 / G2-M1	2 / G2-M1
Hydraulic circuit																			
Number of plate heat exchanger			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Maximum water pressure		bar	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
Nominal water flow		l/h	921	1540	1620	1764	1800	2030	2306	2592	2600	2822	3348	3550	3924	4300	4860	4960	6408
WPD at nominal water flow		kPa	13	17	13	23	20	25	21	33	28	34	40	35	61	50	55	55	80,5
Connections - inlet/outlet (Ø)		Inch	ISO G ¾ INT	ISO G ¾ INT	ISO G ¾ INT	ISO G ¾ INT	ISO G ¾ INT	ISO G ¾ INT	ISO G ¾ INT	ISO G ¾ INT	ISO G ¾ INT	ISO G ¾ INT	ISO G ¾ INT	ISO G 1 ¼	ISO G ¾ INT	ISO G 1 ¼	ISO G 1 ¼	ISO G 1 ¼	ISO G 1 ¼
Condensate outlet - external (Ø)		mm	19	19	19	19	19	19	19	19	19	19	19	19	19	22	22	22	22
Refrigerant circuit																			
Number of refrigerant circuits				1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Compressor type			Rotary	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Load		g	1160	1483	2534	1594	1950	1950	3200	3200	2800	3200	3200	3400	2700	3800	5100	5100	5100
Electrical data																			
Power supply	Voltage	V	230	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
	Phase		Single phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50 ±10%	50 + Neutral	50 + Neutral	50 + Neutral	50 + Neutral	50 + Neutral	50 + Neutral	50 + Neutral	50 + Neutral	50 + Neutral	50 + Neutral	50 + Neutral	50 + Neutral	50 + Neutral	50 + Neutral	50 + Neutral	50 + Neutral
Input power [3]	Cooling	W	1557	2118	1981	2658	2357	3044	2909	3584	3423	4200	4989	4278	6280	5279	6317	5954	8547
	Heating	W	1611	2332	2382	2983	2475	3460	3203	3920	3479	4300	5150	5098	7347	6188	7895	7115	10224
Electric heating coil	Number / capacity	- / W	2 / 1500 + 750	1 / 3750	1 / 3750	1 / 3750	1 / 3750	1 / 4500	1 / 4500	1 / 5400	1 / 5400	1 / 6500	1 / 7500	1 / 7500	1 / 9000	1 / 9000	1 / 13000	1 / 13000	1 / 16000
Sound levels																			
Sound power - radiated	Lo / Med / Hi	dB(A)	51 / 54 / 58	54 / 56 / 57	54 / 56 / 57	53 / 54 / 57	53 / 54 / 57	53 / 56 / 58	53 / 56 / 58	54 / 56 / 58	54 / 56 / 58	55 / 59 / 63	55 / 59 / 63	55 / 59 / 63	57 / 60 / 63	55 / 59 / 62	70 / 69 / 68	70 / 69 / 68	72 / 69 / 70
NR	Lo / Med / Hi		34 / 37 / 40	33 / 34 / 37	33 / 34 / 37	33 / 35 / 38	33 / 35 / 38	34 / 37 / 41	34 / 37 / 41	36 / 40 / 43	36 / 40 / 43	39 / 43 / 46	39 / 43 / 46	39 / 43 / 46	36 / 39 / 44	36 / 39 / 44	56 / 54 / 52	56 / 54 / 52	56 / 53 / 50
Dimensions																			
Length		mm	900	1050	1050	1050	1050	1050	1250	1250	1250	1250	1250	1250	1250	1680	1680	1680	1680
Width		mm	600	600	660	660	660	660	705	705	705	705	705	705	705	955	955	955	955
Height		mm	439	460	460	460	460	460	513	513	513	513	513	583	513	770	770	770	770
Weight																			
Operating weight		kg	80	100	112	100	100	112	133	133	135	140	144	149	149	253	253	259	262

1) Nominal cooling capacities based on: entering air temperature of 27 °C DB, 19 °C WB with entering water temperature of 30 °C. 2) Nominal heating capacities based on: entering air temperature of 20 °C DB, 15 °C WB with entering water temperature of 20 °C. 3) Absorbed power (compressor + fan) at nominal conditions.

Accessories and options
Circuit breaker
Controller with BACnet MSTP (LON and Modbus TCP/IP available upon request)
Electric heaters
General alarm dry contact
Main switch

Accessories and options
Motorized water valve
RCS remote control (for controller with protocol communication)
Room sensor
SRC - mini BMS controller

HIGH SEER 4.74 | HIGH SCOP 4.46 | PLATE HEAT EXCHANGER | ROTARY/SCROLL COMPRESSOR | SUPER QUIET | VERY HIGH PERFORMANCE

Specifications subject to change without notice. For detailed information about ErP / Energy Labelling, please visit our websites www.aircon.panasonic.eu or www.ptc.panasonic.eu.

ECOi-LOOP FS H · R407C

Water source heat pumps heat pump.

Cooling capacity: 1,9 to 2,7 kW.
Heating capacity: 2,4 to 3,2 kW.

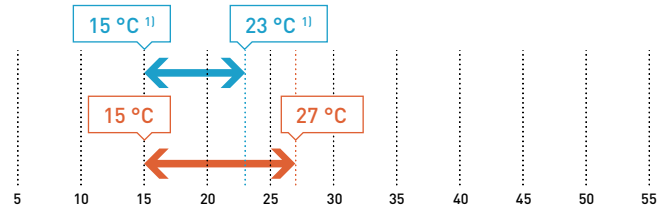
Optional controller.
RCS remote control.

Optional controller.
SRC - mini BMS controller.

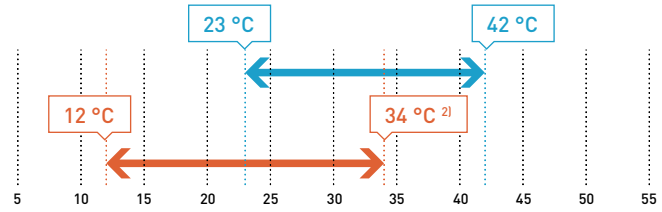
SEE PAGE 118 FOR MORE DETAILS ABOUT WATER SOURCE HEAT PUMPS CONTROL SYSTEMS

Operating limits

Air inlet temperature.



Water inlet temperature.



1) From 21 to 32 °C DB. 2) 32 °C for ECOi-LOOP FS 07 in low speed * Maximum water pressure 10 bars.

The range at a glance

- 1 version: H (heat pump)
- 3 sizes
- Vertical installation
- 4 versions: VC (standard version with cabinet), VCL (low height version with cabinet), VN (standard version without cabinet) and VNL (low height version without cabinet)
- EER up to 3,52 and COP up to 3,74
- Nominal air flow from 250 to 510 m³/h
- 3-speed AC fan (or optional low consumption EC fan)
- Many hydraulic and electric configurations available
- Front or bottom air intake
- Operating range: from 15 °C to 32 °C ambient air temperature
- Water inlet temperature from 12 °C to 42 °C

Advantages

- Low sound levels: acoustic insulation between ventilation and compressor compartments
- Design and elaborate finish cabinet enabling harmonious integration (RAL9010)
- Low energy consumption EC fan (option)
- Highly customisable. Many air routeing configurations and selection of hydraulic service side
- Easy access to components through a removable front panel
- Brazed stainless steel plate heat exchanger for improved efficiency
- 100% factory tested

Equipment

- The refrigerant circuit comprises a rotary type hermetic compressor, a cycle reversal valve, a water/refrigerant heat exchanger, a liquid receiver, a finned coil, HP and LP pressure switches and 2 Schrader valves (HP and LP)
- The rotary type hermetic compressor, mounted on spring anti-vibration mounts, is integrated in a compartment coated with reinforced acoustic insulation. It is also equipped with internal thermal protection
- The units are equipped with a control system (POL423) utilising Modbus RTU
- The water/refrigerant heat exchanger is made of brazed stainless steel plates, for improved efficiency
- RAL9010 painted cabinet for versions VC and VCL
- Condensate drain pan with an anti-corrosion treatment
- A G2 air filter is provided within the unit

AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical features

ECOi-LOOP FS H - heat pump			P-LPFSM07HA	P-LPFSM09HA	P-LPFSM12HA
Total cooling capacity [1]		W	1942	2136	2743
Sensible cooling capacity [1]		W	1526	1775	2340
EER			3,41	3,52	3,25
Heating capacity [2]		W	2431	2542	3156
COP			3,56	3,74	3,49
Ventilation					
Number of fans			1	1	1
Air flow	Lo / Med / Hi	m³/h	250 / 340 / 400	340 / 400 / 460	400 / 460 / 510
Motor power (with AC / EC fan)		W	75 / 40	75 / 40	75 / 40
Air filter	Number / efficiency		1 / G2	1 / G2	1 / G2
Hydraulic circuit					
Number of plate heat exchanger			1	1	1
Maximum water pressure		bar	10	10	10
Nominal water flow		l/h	428	479	616
WPD at nominal water flow		kPa	5	3,4	12
Connections - inlet/outlet (ø)		Inch	ISO G ½ INT	ISO G ½ INT	ISO G ½ INT
Condensate outlet - external (Ø)		mm	15 x 20	15 x2 0	15 x 20
Refrigerant circuit					
Number of refrigerant circuits			1	1	1
Compressor type			Rotary	Rotary	Rotary
Load		g	490	430	750
Electrical data					
Power supply	Voltage	V	230	230	230
	Phase		Single phase	Single phase	Single phase
	Frequency	Hz	50 ±10%	50 ±10%	50 ±10%
Input power - AC fan [3]	Cooling	W	598	647	892
	Heating	W	710	720	954
Sound levels - AC fan					
Sound pressure [4]	Lo / Med / Hi	dB(A)	41 / 42 / 43	42 / 43 / 45	43 / 45 / 46
NR [4]	Lo / Med / Hi		36 / 37 / 38	37 / 38 / 40	38 / 40 / 41
Dimensions					
Standard with cabinet (VC)	L x W x H	mm	1138 x 251 x 720 min / 750 max (821 with feet)	1138 x 251 x 720 min / 750 max (821 with feet)	1138 x 251 x 720 min / 750 max (821 with feet)
Low height with cabinet (VCL)	L x W x H	mm	1323 x 251 x 580 min / 610 max (683 with feet)	1323 x 251 x 580 min / 610 max (683 with feet)	1323 x 251 x 580 min / 610 max (683 with feet)
Standard without cabinet (VN)	L x W x H	mm	1043,5 (1086 with feet) x 229 x 667,5 min / 697,5 max (769,5 with feet)	1043,5 (1086 with feet) x 229 x 667,5 min / 697,5 max (769,5 with feet)	1043,5 (1086 with feet) x 229 x 667,5 min / 697,5 max (769,5 with feet)
Low height without cabinet (VNL)	L x W x H	mm	1182,5 (1183 with feet) x 229 x 525 min / 555 max (627 with feet)	1182,5 (1183 with feet) x 229 x 525 min / 555 max (627 with feet)	1182,5 (1183 with feet) x 229 x 525 min / 555 max (627 with feet)
Weight					
Without cabinet / with cabinet - operating		kg	55 / 70	58 / 73	60 / 75

1) Nominal cooling capacities based on: entering air temperature of 27 °C DB/19 °C WB, with entering water temperature of 30 °C. 2) Nominal heating capacities based on: entering air temperature of 20 °C DB/15 °C WB, with entering water temperature of 20 °C. 3) Absorbed power (compressor + fan) at nominal conditions. 4) Sound pressure considering a local of 100 m³, a reverberation time of 0,5 sec and a distance of 1 m.

Accessories and options
Controller with BACnet MSTP (LON and Modbus TCP/IP available upon request)
EC fan
Feet
General remote alarm contact
Low noise

Accessories and options
Many electric, hydraulic and aeraulic configurations
RCS remote control (for controller with protocol communication)
SRC - mini BMS controller
Thermal overload

HIGH SEER 3,52 | HIGH SCOP 3,74 | EC MOTOR GREEN VENTILATION | PLATE HEAT EXCHANGER | ROTARY COMPRESSOR | SUPER QUIET

ECOi-LOOP-N FS H · R513A

Water source heat pumps heat pump.

Cooling capacity: 1,7 to 2,0 kW.
Heating capacity: 1,8 to 2,6 kW.

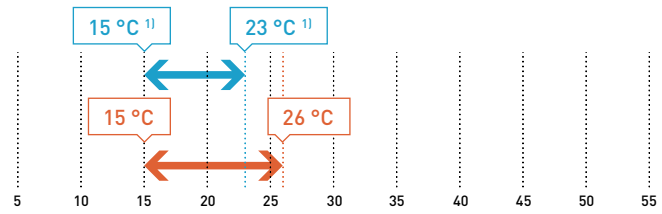
Optional controller.
RCS remote control.

Optional controller.
SRC - mini BMS controller.

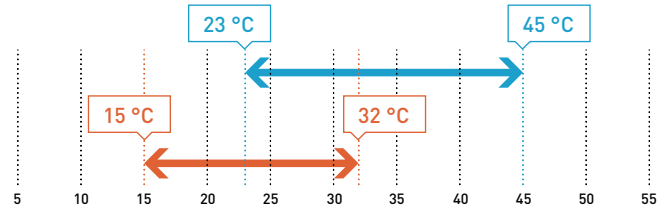
SEE PAGE 118 FOR MORE DETAILS ABOUT WATER SOURCE HEAT PUMPS CONTROL SYSTEMS

Operating limits

Air inlet temperature.



Water inlet temperature.



1) From 21 to 32 °C DB. * Maximum water pressure 10 bars.

The range at a glance

- 1 version: H (heat pump)
- 2 sizes
- Vertical installation
- 4 versions: VC (standard version with cabinet), VCL (low height version with cabinet), VN (standard version without cabinet) and VNL (low height version without cabinet)
- EER up to 4,9 and COP up to 4,6
- Nominal air flow from 250 to 460 m³/h
- 3-speed AC fan (or optional low consumption EC fan)
- Many hydraulic and electric configurations available
- Front or bottom air intake
- Operating range: from 15 °C to 32 °C ambient air temperature
- Water inlet temperature from 15 °C to 45 °C

Advantages

- Low sound levels: acoustic insulation between ventilation and compressor compartments
- Design and Elaborate finish cabinet enabling harmonious integration (RAL9010)
- Low energy consumption EC fan (option)
- Highly customisable. Many air routeing configurations and selection of hydraulic service side
- Easy access to components through a removable front panel
- Brazed stainless steel plate heat exchanger for improved efficiency
- 100% factory tested

Equipment

- The refrigerant circuit comprises a rotary type hermetic compressor, a cycle reversal valve, a water/refrigerant heat exchanger, a liquid receiver, a capillary expansion device, a finned coil, HP and LP pressure switches and 2 Schrader valves (HP and LP)
- The rotary type hermetic compressor is installed in a compartment covered with a 20 mm thick Isofeutre thermal-acoustic insulation. It is also equipped with internal thermal protection
- The units are equipped with a control system (POL423) utilising Modbus RTU
- The water/refrigerant heat exchanger is made of brazed stainless steel plates, for improved efficiency. A coaxial heat exchanger is available on request
- RAL9010 painted cabinet for versions VC and VCL
- Condensate drain pan with an anti-corrosion treatment
- A G2 air filter is provided within the unit

AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

Technical features

ECOi-LOOP-N FS H - heat pump			P-LPFSN07HA	P-LPFSN09HA
Total cooling capacity [1]			1690	2040
Sensible cooling capacity [1]			1410	1600
Input power (with EC / AC fan) [2]		W	345 / 355	480 / 487
EER according to EN14511 (with EC / AC fan)			4,9 / 4,75	4,25 / 4,19
Heating capacity [3]		W	1790	2630
Input power (with EC / AC fan) [2]		W	395 / 405	610 / 617
COP according to EN14511 (with EC / AC fan)			4,6 / 4,41	4,31 / 4,26
Ventilation				
Air flow	Min	m³/h	250	340
	Nominal	m³/h	340	400
	Max	m³/h	400	460
Nominal input power (with EC / AC fan)		W	15 / 25	20 / 27
Motor power (with EC / AC fan)		W	40 / 75	40 / 75
Air filter	Number / efficiency		1 / G2	1 / G2
Hydraulic circuit				
Number of water heat exchanger			1	1
Maximum water pressure		Bar	10	10
Nominal water flow	Cooling [1]	l/h	351	434
	Heating [3]	l/h	405	586
Cutoff water flow		l/h	180	180
WPD at nominal water flow	Cooling [1]	kPa	3,8	5,8
	Heating [3]	kPa	5,1	10,8
Hydraulic connections - inlet/outlet		Inch	Female ISO G ½ INT	Female ISO G ½ INT
Condensate outlet (Ø)		mm	15 x 20	15 x 20
Refrigerant circuit				
Number of refrigerant circuits			1	1
Type of compressor			Rotary	Rotary
Load		g	500	490
Electrical data				
Power supply	Voltage	V	230	230
	Phase		Single phase	Single phase
	Frequency	Hz	50 ±10%	50 ±10%
Maximum current [4]		A	4,6	5,7
Starting current [5]		A	16	16,5
Sound levels				
Sound power Lw	Lo / Med / Hi	dB(A)	47,2 / 49,8 / 51,5	49,8 / 51,5 / 54,3
Sound pressure Lp	Lo / Med / Hi	dB(A)	38,2 / 40,8 / 42,5	40,8 / 42,5 / 45,3
NR	Lo / Med / Hi	dB(A)	32 / 34 / 36	34 / 36 / 40
Sound levels - extra low noise version				
Sound power Lw	Lo / Med / Hi	dB(A)	42,5 / 44,6 / 46,5	44,7 / 46,5 / 48,6
Sound pressure Lp	Lo / Med / Hi	dB(A)	33,5 / 35,6 / 37,5	35,7 / 37,5 / 39,6
NR	Lo / Med / Hi	dB(A)	28 / 30 / 32	30 / 32 / 34
Dimensions				
Standard with cabinet (VC)	LxWxH	mm	1138 x 260 x 720 min / 750 max (821 with feet)	1138 x 260 x 720 min / 750 max (821 with feet)
Low height with cabinet (VCL)	LxWxH	mm	1322 x 260 x 582 min / 612 max (683 with feet)	1322 x 260 x 582 min / 612 max (683 with feet)
Standard without cabinet (VN)	LxWxH	mm	1055 (1084 with feet) x 241 x 667 min / 697 max (769 with feet)	1055 (1084 with feet) x 241 x 667 min / 697 max (769 with feet)
Low height without cabinet (VNL)	LxWxH	mm	1185 (1270 with feet) x 241 x 525 min / 555 max (626 with feet)	1185 (1270 with feet) x 241 x 525 min / 555 max (626 with feet)
Weight				
Without cabinet / with cabinet - operating		kg	55 / 70	58 / 73

1) Nominal cooling capacities based on: entering air temperature of 27 °C DB/19 °C WB, with entering water temperature of 30 °C. 2) Absorbed power (compressor + fan) at nominal conditions. 3) Nominal heating capacities based on: entering air temperature of 20 °C DB/15 °C WB, with entering water temperature of 20 °C. 4) Maximum currents are given at +/- 5%. 5) Starting currents are given at +/- 10%.

Accessories and options
Controller with BACnet MSTP (LON and Modbus TCP/IP available upon request)
EC fan
Feet
General remote alarm contact
Low noise

Accessories and options
Many electric, hydraulic and aeraulic configurations
RCS remote control (for controller with protocol communication)
SRC - mini BMS controller
Thermal overload

HIGH SEER 4,90 | HIGH SCOP 4,60 | EC MOTOR GREEN VENTILATION | PLATE HEAT EXCHANGER | ROTARY COMPRESSOR | SUPER QUIET

Water source heat pumps control systems

SRC - mini BMS controller

Smart controller. Mini building management system.
With the SRC - mini BMS controller - you can now remotely control multiple units or zones of units with a single interface.
Its time programming function offers you the possibility to fully control and rationalise the energy consumption of your HVAC system.
This smart controller is intuitive and easy to use thanks to its color touch screen, logical structure and clear control icons.
The modern and refined design fits perfectly in to any modern interior.

· Supervise fan coil units, chillers/heat pumps, air handling units and water source heat pumps
· Manage up to 31 units
· Communicate via Modbus protocol
· Time programming function
· A modern and refined design
· 3,5'' color touch screen
· Wall mounting

Used as a mini BMS.
With the SRC you can create up to 15 zones including several Panasonic units belonging to the same product lines [1].
· Chillers / heat pumps
· Air handling units
· Fan coil units

Used as a remote control.
The SRC can also control, in a unique zone, one or several units belonging to the same product line.
· Fan coil units
· Water source heat pumps

Control system with protocol communication

Ventilation:
· Compatibility: 3-speed AC fan motor or EC fan motor
· Manual speed (3 levels)
· Automatic speed

Communication:
· Modbus RTU or BACnet MSTP
· Modbus TCP/IP or LON upon request

Operating mode:
· OFF / Comfort / ECO

Function type:
· Summer
· Winter
· Ventilation
· Auto changeover (adjustment of the automatic mode according to the setpoint)

Setpoint:
· Extract air temperature
· Room thermostat
· BMS

RCS remote control

Main functions:
· ON / OFF
· Comfort / ECO modes
· Operating mode setting
· Setpoint adjustment
· Room temperature (OFF)
· Ventilation setting (manual or automatic)
· Time display and setting
· Alarm summary
· Zoning (up to 15 units)
· Scheduling

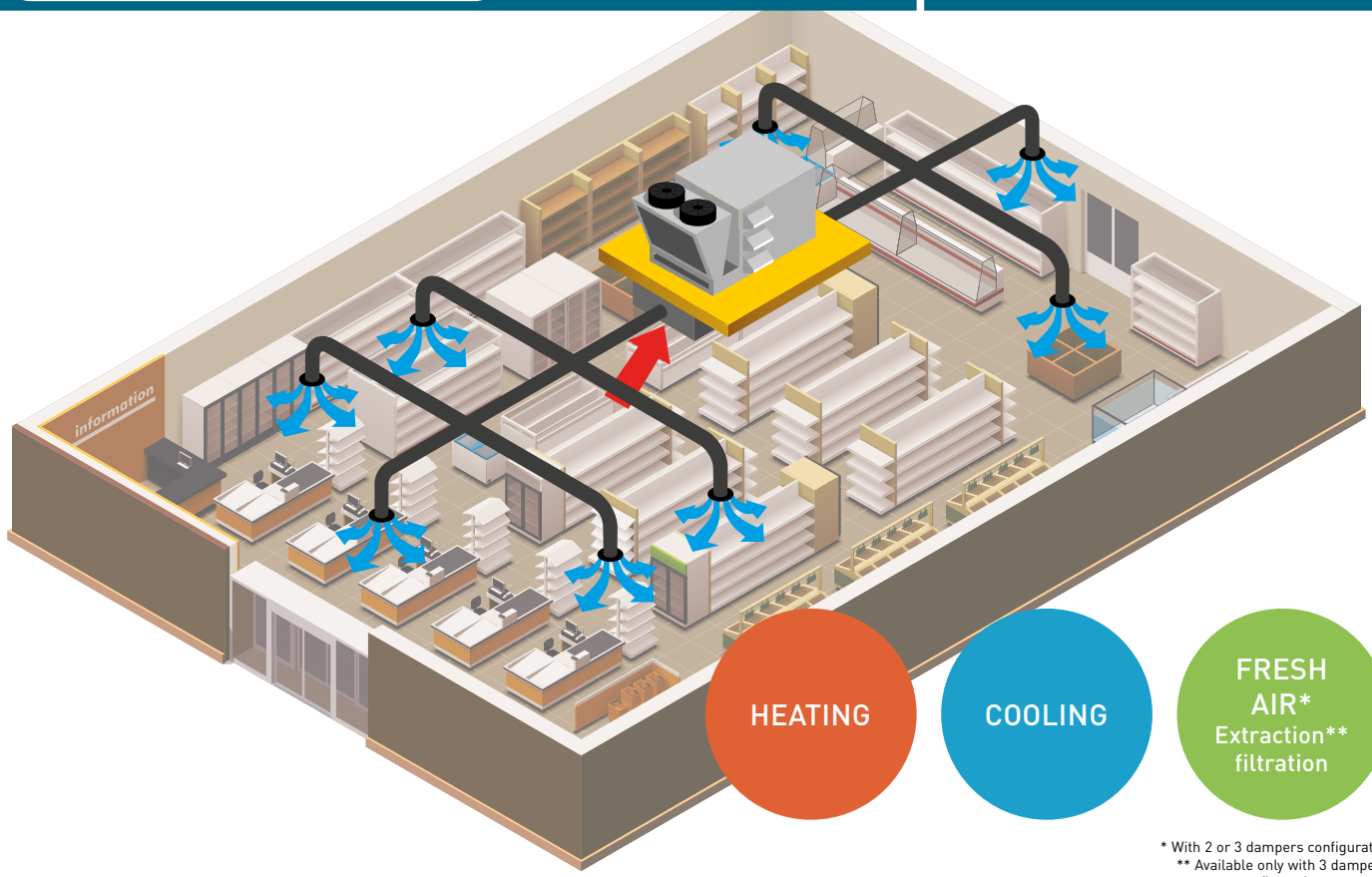
ROOFTOPS

Rooftops

Rooftops → 122
Quick selection guide - Rooftops cooling only → 124
Quick selection guide - Rooftops heat pump → 124
Energy recovery system configurations → 125
ECOi-RT C/H · R410A → 126
ECOi-RT-Z H · R32 → 128

Rooftops

A complete mono-bloc solution for large buildings.
With rooftop units, you get a complete mono-bloc solution to heat and cool large buildings such as shopping centers, industries, or airports that need high capacity. It is also a space saving solution, easy to install, directly on the roof.



* With 2 or 3 dampers configurations.
** Available only with 3 dampers configuration.

Self-contained solution, compact and mono-bloc

Capacity range from 50 to 150 kW

R410A
R32

Refrigerants: R410A / R32

HIGH SEER
HIGH SCOP

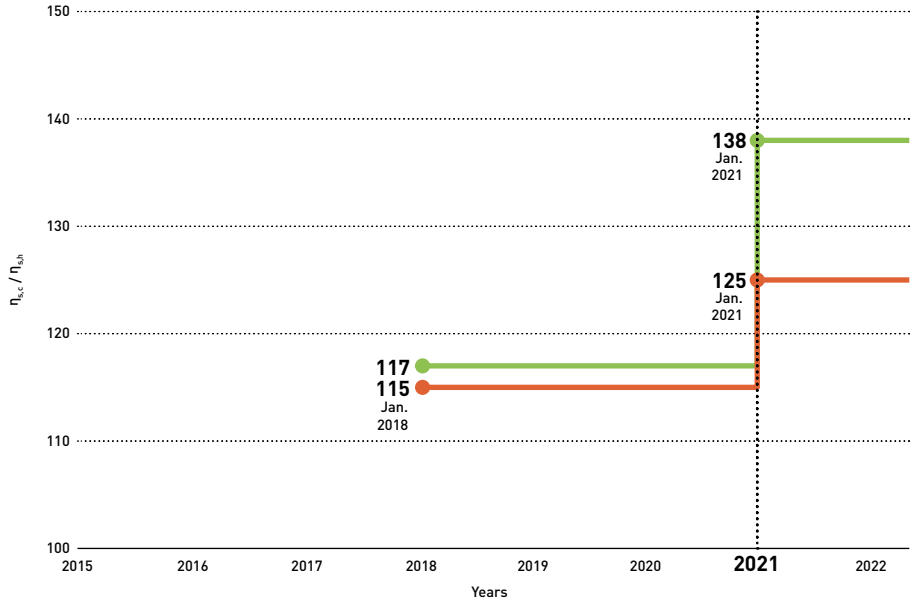
High SEER and SCOP

HIGH ESP

Very high external static pressure

Extractible drain pan

Ecodesign



Air to air rooftops cooling only.

Minimum $\eta_{s,c}$ to be Ecodesign compliant.
COMMISSION REGULATION (EU) 2016/2281.

Air to air rooftops heat pump.

Minimum $\eta_{s,h}$ to be Ecodesign compliant.
COMMISSION REGULATION (EU) No813/2013.

Quick selection guide - Rooftops cooling only

Page		Size	Cooling capacity (kW)	Nominal air flow (m³/h)	Sound power (lwo - dB(A))	Dimensions (mm)
P. 126	ECOi-RT C · R410A 	55	49,60	9720	80	3250 x 1800 x 2030
		65	62,80	11500	83	3250 x 1800 x 2030
		80	79,00	14300	80	3250 x 1800 x 2030
		95	89,27	17500	85	3740 x 2110 x 2285
		105	111,08	19200	85	3740 x 2110 x 2285
		120	119,87	21500	87	3740 x 2110 x 2285
		140	142,09	25500	91	3740 x 2110 x 2285
		160	164,98	28000	91	5505 x 2110 x 2285
		190	197,06	30000	92	5505 x 2110 x 2285
		210	219,12	32000	94	5505 x 2110 x 2285

Quick selection guide - Rooftops heat pump

Page		Size	Cooling and heating capacity (kW)	Nominal air flow (m³/h)	Sound power (lwo - dB(A))	Dimensions (mm)
P. 126	ECOi-RT H · R410A 	55	48,1 / 50,7	9720	80	3250 x 1800 x 2030
		65	61,0 / 59,7	11500	83	3250 x 1800 x 2030
		80	76,7 / 76,6	14300	80	3250 x 1800 x 2030
		95	87,2 / 90,7	17500	85	3740 x 2110 x 2285
		105	107,8 / 107,0	19200	85	3740 x 2110 x 2285
		120	116,3 / 117,1	21500	87	3740 x 2110 x 2285
		140	137,9 / 148,7	25500	91	3740 x 2110 x 2285
		160	160,1 / 157,9	28000	91	5505 x 2110 x 2285
		190	191,2 / 187,3	30000	92	5505 x 2110 x 2285
		210	212,6 / 214,4	32000	94	5505 x 2110 x 2285
P. 128	ECOi-RT-Z H · R32  R32 REFRIGERANT	105	106,0 / 106,0	19200	79,8	3740 x 2150 x 2285
		140	139,0 / 142,0	25500	86,1	3740 x 2150 x 2285

* Heat pump version with EC fans.

AC SELECT.

Smart and user-friendly the new air conditioning selection program: https://acselect.panasonic.eu/

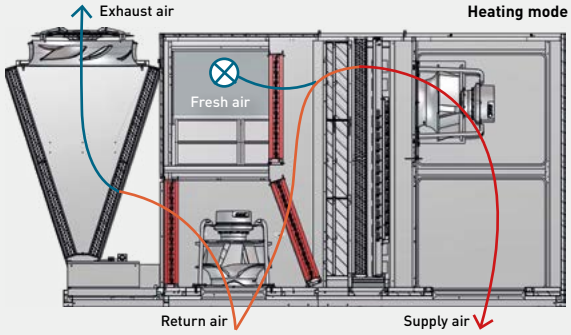
Energy recovery system configurations

RECO - standard energy recovery (3 dampers)

Energy recovery on the exhaust air.

	Pc	EER	Ph	COP
3 dampers + RECO 30% fresh air	+1%	+2%	+7%	+4%
3 dampers + RECO 60% fresh air	+2%	+4%	+14%	+8%

* Nominal conditions. Pc: cooling capacity / Ph: heating capacity.

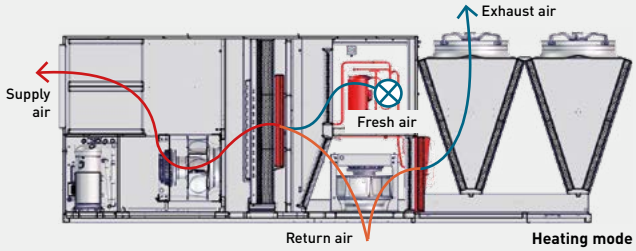


TRECO - thermodynamic energy recovery (3 dampers)

Active energy recovery between the exhaust air and the fresh air using dedicated thermodynamic system.

	Pc	EER	Ph	COP
3 dampers + TRECO 20% fresh air	+21%	0%	+20%	+3%
3 dampers + TRECO 60% fresh air	+20%	-2%	+21%	+4%

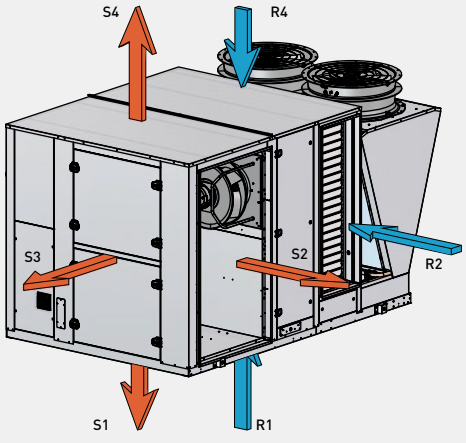
* Nominal conditions. Pc: cooling capacity / Ph: heating capacity.
** TRECO is not available for the R32 rooftops.



Supply and return air configurations

Supply air	S1 bottom side supply air
	S2 left side supply air
	S3 front side supply air
	S4 top side supply air
Return air	R1 bottom side return air
	R2 left side return air
	R4 top side return air [1]

1) Not available with the 3 dampers - RECO system configuration.



ECOi-RT C/H · R410A

Rooftop cooling only and heat pump units.

Cooling capacity: 48,1 to 219,1 kW.
Heating capacity: 50,7 to 214,4 kW.

The range at a glance

- 2 versions: C (cooling only) and H (heat pump)
- SEER up to 3,94 and SCOP up to 3,23
- 10 sizes
- Nominal air flow from 9720 to 32000 m³/h
- Additional heaters available
- Many aeraulic configurations
- 2 Energy recovery system configurations (RECO and TRECO)

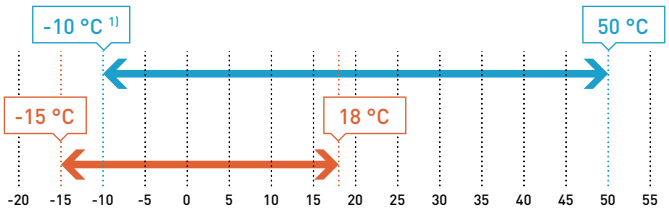
Advantages

- Very high performances: A class EER and COP
- Low energy consumption EC fans
- Wide operating limits
- Thermal/acoustic insulation: double skin (25 mm glasswool)
- 100% factory tested

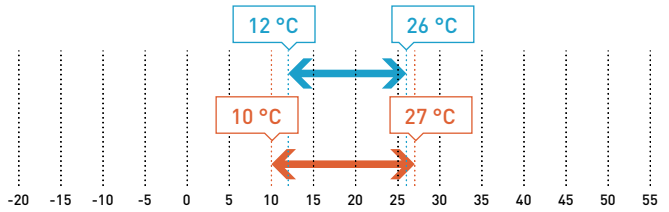
Operating limits

To be confirmed with AC SELECT:
https://acselect.panasonic.eu/

Ambient temperature (DB).



Temperature before indoor coil 2).



1) Using fan speed control option. 2) Cooling: °C (WB). Heating: °C (DB).

Accessories and options
AC HP plug fan
Adjustable roof curb
Anti-vibration mounts
Clogged filter sensor (1 or 2 stages)
Compatible container transportation
Compressor soft starter
EC or EC HP plug fan
Electric heaters
Energy recovery system
Epoxy treatment (indoor/outdoor coils)
Fan speed control

Accessories and options
G4, G4+F7 or G4+F9 filters
Gas heater (upon request)
Hot water coil
Local additional remote keyboard
Many aeraulic configurations (bottom, side, front, top)
Modbus / BACnet
RECO or TRECO energy recovery
Room temperature sensor
Sensors (VOC, enthalpy, CO_2)
Smoke detector

Equipment

- 2 refrigerant circuits for optimised defrosting logic. They are both completely closed in a separate compartment to reduce noise level. Each circuit comprises of Scroll compressor(s) (2 per circuit from size 160), indoor and outdoor coils, 4 way reversing valve (H type), filter dryer, sight glass, thermostatic or electronic expansion valve (from 160 to 210), high and low pressure switches, defrosting pressure switch, intake temperature sensor, and a liquid accumulation bottle (for sizes from 160 to 210)
- 2 or 4 Scroll compressors - 1 per circuit from 55 to 140 and 2 per circuit for 160 to 210 assembled together in tandem. Each compressor is equipped with a crankcase heater and mounted on rubber pads to eliminate noise and vibration transmissions. The motors are equipped with overload protection and have direct start-up. A phase sequence monitor is supplied as standard
- The controls are grouped and wired in the unit, factory tested and shipped READY TO USE. They are located in a sealed compartment that is isolated from the air flow. The electrical equipment is compliant with EC standards and EN60204-1
- The outdoor and indoor heat exchangers are made of seamless copper tubes mechanically expanded into aluminium fins. Outdoor coils are largely dimensioned to optimise performance and defrost cycles. They are also equipped with a protective grille to prevent shocks - Bluefin treatment applicable to heat pump type
- The unit casing is of heavy duty galvanized steel, painted with a special process to ensure a perfect protection against corrosion (RAL 9003). The complete unit is covered with double skin panels to ensure perfect thermal insulation. For full unit access, all service panels are removable. Under the indoor heat exchanger, an extractable condensate drain pan allows hygienic cleaning.
- The indoor fan(s) are plug type with AC or EC motors; low pressure or high pressure according to the configuration selected by the customer.

Technical features

Size			55	65	80	95	105	120	140	160	190	210
ECOi-RT C EC fan - cooling only	**P-RTE****CA**		**0055**	**0065**	**0080**	**0095**	**0105**	**0120**	**0140**	**0160**	**0190**	**0210**
Cooling capacity [1]		kW	49,60	62,80	79,00	89,27	111,08	119,87	142,09	164,98	197,06	219,12
Input power [1]		kW	15,85	19,44	23,24	28,80	33,56	37,10	47,09	51,19	60,61	71,54
EER [1]			3,13	3,23	3,40	3,10	3,31	3,23	3,02	3,22	3,25	3,06
Pdesign [2] [3]		**kW**	**49,57**	**62,81**	**79,00**	**95,10**	**111,08**	**119,87**	**142,09**	**164,98**	**197,06**	**219,12**
SEER [2] [3]			**3,57**	**3,58**	**3,74**	**3,54**	**3,66**	**3,57**	**3,52**	**3,91**	**3,94**	**3,71**
Energy efficiency class [2] [3]			**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**
$\eta_{s,c}$ [2] [3]			**140**	**140**	**147**	**139**	**143**	**140**	**138**	**154**	**154**	**145**
ECOi-RT H EC fan - heat pump	**P-RTE****HA**		**0055**	**0065**	**0080**	**0095**	**0105**	**0120**	**0140**	**0160**	**0190**	**0210**
Cooling capacity [1]		kW	48,10	61,00	76,70	87,21	107,81	116,34	137,88	160,10	191,21	212,60
Input power [1]		kW	15,82	19,49	23,24	28,97	33,56	37,10	45,69	51,19	60,61	70,47
EER [1]			3,04	3,13	3,30	3,01	3,21	3,14	3,02	3,13	3,15	3,02
Pdesign [2] [3]		**kW**	**48,12**	**60,95**	**76,67**	**92,34**	**107,81**	**116,34**	**137,88**	**160,10**	**191,21**	**212,60**
SEER [2] [3]			**3,53 B**	**3,52 C**	**3,63 B**	**3,52 C**	**3,55 B**	**3,52 B**	**3,52 B**	**3,80 B**	**3,82 B**	**3,65 B**
$\eta_{s,c}$ [2] [3]			**138,12**	**137,80**	**142,20**	**137,80**	**139,17**	**138,00**	**138,00**	**148,92**	**149,82**	**143,15**
Heating capacity [1]		kW	50,65	59,65	76,63	90,66	106,95	117,10	148,70	157,90	187,31	214,37
Input power [1]		kW	14,81	17,49	21,77	26,59	30,38	34,14	42,85	46,17	54,29	62,68
COP [1]			3,42 A	3,41 A	3,52 A	3,41 A	3,52 A	3,43 A	3,47 A	3,42 A	3,45 A	3,42 A
Pdesign [2] [3]		**kW**	**48,00**	**58,00**	**67,00**	**85,00**	**100,00**	**112,00**	**145,00**	**155,00**	**180,00**	**210,00**
SCOP [2] [3]			**3,20**	**3,22**	**3,22**	**3,23**	**3,22**	**3,21**	**3,20**	**3,19**	**3,23**	**3,19**
$\eta_{s,h}$ [2] [3]			**125,00**	**125,80**	**125,80**	**126,20**	**126,00**	**125,00**	**125,00**	**125,00**	**126,00**	**125,00**
Electrical data												
Power supply	Voltage	V	400	400	400	400	400	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50	50	50	50	50
Maximum operating intensity		A	46,30	57,60	74,60	83,80	89,80	103,00	123,00	157,80	161,80	178,60
Start intensity (without soft starter)		A	156,10	175,00	184,60	225,80	276,80	290,00	347,00	266,80	303,80	365,60
Start intensity (with soft starter)		A	69,96	85,68	113,60	125,40	139,20	152,40	185,40	198,10	203,40	228,00
Refrigerant and compressors												
Number of refrigerant circuits			2	2	2	2	2	2	2	2	2	2
Compressors	Number / type		2 / Scroll	2 / Scroll	2 / Scroll	2 / Scroll	2 / Scroll	2 / Scroll	2 / Scroll	4 / Scroll	4 / Scroll	4 / Scroll
Mounting type			Single	Single	Single	Single	Single	Single	Single	Tandem	Tandem	Tandem
Capacity steps		%	0 / 50 / 100	0 / 50 / 100	0 / 50 / 100	0 / 50 / 100	0 / 50 / 100	0 / 50 / 100	0 / 50 / 100	0 / 25 / 50 / 75 / 100	0 / 25 / 50 / 75 / 100	0 / 25 / 50 / 75 / 100
Crankcase heater		W	2 x 70	2 x 70	2 x 70	2 x 70	2 x 70	2 x 70	2 x 120	4 x 70	4 x 70	2 x 70 - 2 x 120
Indoor coil												
Coil type			Copper tubes and aluminium fins	Copper tubes and aluminium fins	Copper tubes and aluminium fins	Copper tubes and aluminium fins	Copper tubes and aluminium fins	Copper tubes and aluminium fins	Copper tubes and aluminium fins	Copper tubes and aluminium fins	Copper tubes and aluminium fins	Copper tubes and aluminium fins
Number of rows			3	3	4	3	4	4	4	4	6	6
Front surface		m²	1,50	1,80	2,25	2,25	3,24	3,24	3,24	3,24	3,24	3,24
Indoor fan(s) - EC type												
Fan type			Backward curved centrifugal	Backward curved centrifugal	Backward curved centrifugal	Backward curved centrifugal	Backward curved centrifugal	Backward curved centrifugal	Backward curved centrifugal	Backward curved centrifugal	Backward curved centrifugal	Backward curved centrifugal
Number of fans			1	1	2	2	2	2	2	2	2	2
Air flow rate	Minimum	m³/h	7760	9200	11440	14000	15600	17200	20400	24000	25400	27500
	Nominal	m³/h	9720	11500	14300	17500	19500	21500	25500	28000	30000	32000
	Maximum	m³/h	11640	13800	17160	21000	23400	25800	30600	33600	36000	38400
Motor power		kW	3,5	5,7	5,8	7	7	11,4	11,4	13,5	13,5	13,5
Outdoor coil												
Coil type			Copper tubes and aluminium fins	Copper tubes and aluminium fins	Copper tubes and aluminium fins	Copper tubes and aluminium fins	Copper tubes and aluminium fins	Copper tubes and aluminium fins	Copper tubes and aluminium fins	Copper tubes and aluminium fins	Copper tubes and aluminium fins	Copper tubes and aluminium fins
Number of rows			2	2	3	2	3	3	3	2	3	3
Front surface		m²	0,76	1,01	1,01	1,50	1,50	1,50	1,50	2,70	2,70	2,70
Outdoor fans												
Fan type			Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Number of fans			2	2	2	2	2	2	2	4	4	4
Diameter		mm	630	710	710	800	800	800	800	800	800	800
Air flow rate	Nominal	m³/h	9800	13000	13000	20000	20000	20000	20000	15500	15500	20500
Motor power		kW	0,62	0,94	0,94	1,65	1,65	1,65	1,65	0,84	0,84	1,65
Sound levels												
Sound power (lwo) - outside	C type	dB(A)	80	83	80	85	85	87	91	91	92	94
	H type	dB(A)	80	83	80	81	85	87	91	91	92	94
Sound power (lwi) - in supply duct		dB(A)	87	94	89	90	91	95	100	91	92	88
Dimensions and weight												
Length	Total	mm	3250	3250	3250	3740	3740	3740	3740	5505	5505	5505
	Floor	mm	2895	2895	2895	3295	3295	3295	3295	5050	5050	5050
Width		mm	2030	2030	2030	2285	2285	2285	2285	2285	2285	2285
Height		mm	1800	1800	1800	2110	2110	2110	2110	2110	2110	2110
Weight (without option)		kg	1085	1155	1225	1470	1685	1805	1855	2350	2555	2705

1) Following EN 14511 2018. 2) Following EN 14825 2017. 3) Following COMMISSION REGULATION (EU) 2016/2281.

HIGH SEER 3,94 | HIGH SCOP 3,23 | ErP | EC MOTOR GREEN VENTILATION | SCROLL COMPRESSOR | VERY HIGH PERFORMANCE | ENERGY RECOVERY

ErP: ECOi-RT H and ECOi-RT C 105/160/190/210 need to be equipped with EC fans to be ErP compliant.

Specifications subject to change without notice. For detailed information about ErP / Energy Labelling, please visit our websites www.aircon.panasonic.eu or www.ptc.panasonic.eu.

ECOi-RT-Z H · R32

Rooftop heat pump units.

Cooling capacity: 106 to 139 kW.
Heating capacity: 106 to 142 kW.

CO_2 carbon footprint reduced by -80%*

* Impact considering only the refrigerants and not the units as a whole.

R32 REFRIGERANT

The range at a glance

- Heat pump version
- SEER up to 3,8 and SCOP up to 3,56
- 3 sizes
- Nominal air flow from 19200 to 25500 m³/h
- Additional heaters available
- Many supply and return air configurations
- 1 energy recovery system configuration (RECO)

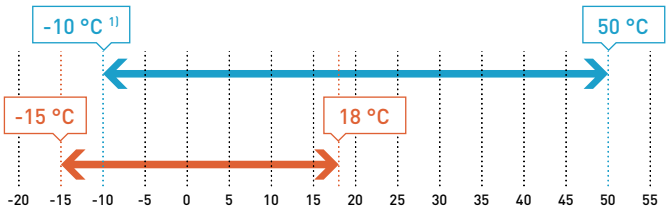
Advantages

- Low GWP R32 refrigerant (GWP=675)
- Very low sound levels
- Safety ventilation system
- Low energy consumption EC fans
- Many supply and return air configurations
- Thermal/acoustic insulation: double skin (25 mm glasswool)
- Dehumidification function (option)
- 100% factory tested

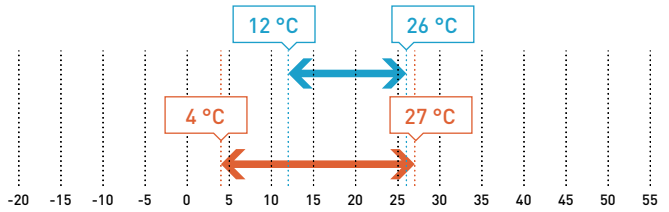
Operating limits

To be confirmed with AC SELECT:
https://acselect.panasonic.eu/

Ambient temperature (DB).



Temperature before indoor coil 2).



1) Using fan speed control option. 2) Cooling: °C (WB). Heating: °C (DB).

Accessories and options
2 dampers - for external air inlet
3 dampers RECO - return EC plug fans included (HPF or LFP) + Recovery
Adjustable roofcurb
Anti-vibration mounts
Clogged filter sensor (1 or 2 stages)
Compressor soft starter
Container transportation compatibility
Dehumidification function
Electric heater 48 kW

Accessories and options
Energy meter
Fan speed control
G4, G4+F7 or G4+F9 filters
Hot water coil
Local and additional remote keyboard
Many aeraulic configurations
Room temperature sensor
Sensors (enthalpy, CO_2)
Smoke detector
Supply EC LPF plug fans

Equipment

- 2 refrigerant circuits for an optimised defrost logic. They are both completely closed in a separate compartment to reduce noise level. Each circuit comprises of 1 Scroll compressor covered with a sound jacket, Indoor and outdoor coils, 4 way reversing valve, filter dryer, sight glass, thermostatic expansion valve, high and low pressure switches, defrosting pressure switch, and temperature sensors
- 2 Scroll compressors - 1 per circuit - covered with sound jackets. Each compressor is equipped with a crankcase heater and mounted on rubber pads to eliminate noise and vibration transmissions. The motors are equipped with an overload protection and have direct start-up. A phase sequence monitor is supplied as standard
- The new advanced control system includes, among others, Modbus protocols, optimised defrost logic, very high security envelope, Modbus control of the indoor fans, and a dehumidification function. The controls are grouped and wired in the unit, factory tested and shipped READY TO USE. They are located in a sealed compartment isolated from the air flow. The electrical equipment is compliant with EC standards and EN60204-1
- The outdoor and indoor heat exchangers are made of seamless copper tubes mechanically expanded into aluminium fins. They have a highly optimised design providing a refrigerant charge reduction of 40% (compared to a unit operating with R410A). Outdoor coils are largely dimensioned to optimise performance and defrost cycles. They are also equipped with a protective grille to prevent shocks - Bluefin treatment
- The unit casing is of heavy duty galvanized steel, painted with a special process to ensure a perfect protection against corrosion (RAL 9003). The complete unit is covered with double skin panels to ensure perfect thermal insulation. For full unit access, all service panels are removable. Under the indoor heat exchanger, an extractable condensate drain pan allows hygienic cleaning
- The indoor fans are plug fan type with EC motors
- A safety ventilation system ensures venting of the refrigerant gas to atmosphere in case of leak

Technical features

Size			105	120	140
ECOi-RT-Z H - heat pump			**P-RTZ0105HA**	**P-RTZ0120HA**	**P-RTZ0140HA**
Cooling capacity [1]		kW	106	119	139
Input power [1]		kW	31,5	36,8	43,0
EER [1]			3,37	3,23	3,24
Pdesign [2] [3]		**kW**	**106**	**119**	**139**
SEER [2] [3]			**3,82**	**3,82**	**3,67**
Energy efficiency class [2] [3]			**B**	**B**	**B**
$\eta_{s,c}$ [2] [3]			**150**	**150**	**144**
Heating capacity [1]		kW	106	117	142
Input power [1]		kW	27,0	30,3	38,0
COP [1]			3,72	3,89	3,69
Pdesign [2] [3]		**kW**	**100**	**118**	**140**
SCOP [2] [3]			**3,36**	**3,56**	**3,32**
Energy efficiency class [2] [3]			**B**	**B**	**B**
$\eta_{s,h}$ [2] [3]			**131**	**130**	**130**
Electrical data					
Power supply	Voltage	V	400	400	400
	Phase		Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50
Maximum operating intensity		A	79,0	85,0	105,0
Refrigerant and compressors					
Number of refrigerant circuits			2	2	2
Compressors	Number / type		2 / Scroll	2 / Scroll	2 / Scroll
Mounting type			Single	Single	Single
Capacity steps		%	0 / 50 / 100	0 / 50 / 100	0 / 50 / 100
Indoor coil					
Coil type			Copper tubes and aluminium fins	Copper tubes and aluminium fins	Copper tubes and aluminium fins
Number of rows			4	4	4
Front surface		m^2	3,24	3,24	3,24
Outdoor coil					
Coil type			Copper tubes and aluminium fins	Copper tubes and aluminium fins	Copper tubes and aluminium fins
Number of rows			3	3	3
Front surface		m^2	1,50	1,50	1,50
Indoor fans - EC type					
Fan type			Backward curved centrifugal	Backward curved centrifugal	Backward curved centrifugal
Number of fans			2	2	2
Air flow rate	Minimum	m^3/h	15360	17200	20400
	Nominal	m^3/h	19200	21500	25500
	Maximum	m^3/h	23040	25800	30600
Motor power		kW	4,23	4,60	5,72
Outdoor fans					
Fan	Number / type		2 / Axial	2 / Axial	2 / Axial
Motor power		kW	1,51	1,51	1,51
Sound levels					
Sound power		dB(A)	79,8	79,8	86,1
Supply sound power level		dB(A)	84,2	84,2	91,3
Sound pressure at 10 m		dB(A)	48,8	48,8	55,1
Dimensions and weight					
Length	Total	dB(A)	3740	3740	3740
	Floor		3295	3295	3295
Width		dB(A)	2285	2285	2285
Height		dB(A)	2150	2150	2150
Width (without option)		dB(A)	1685	1805	1855

1) Following EN 14511 2018. 2) Following EN 14825 2017. 3) Following COMMISSION REGULATION (EU) 2016/2281.

ECOi-RT-Z H · R32 units are available in 3 configurations:
· No damper: unit working with 100% recycled air
· 2 dampers: with outdoor air inlet
· 3 dampers - RECO system: energy recovery system on the exhaust air. This configuration is equipped with 2 return EC plug fans

R32 | HIGH SEER 3.82 | HIGH SCOP 3.56 | ErP | EC MOTOR GREEN VENTILATION | SCROLL COMPRESSOR | VERY HIGH PERFORMANCE | ENERGY RECOVERY

Panasonic service

Our Panasonic Service teams are committed to ensuring your peace of mind. Best service is our aim.

Panasonic provides a team of highly trained technicians and engineers to deliver professional and responsive services that meet the highest levels of quality and safety while being efficient and cost effective.
To find out more about Panasonic Heating & Cooling Solutions, please visit **www.aircon.panasonic.eu**.

Maintenance.
To meet the requirements of the standard warranty, the product must be maintained and serviced annually by a suitably trained and qualified engineer. This way we can extend the lifetime of the product.

Repair.
Panasonic offers a wide range of service agreements, like Panasonic Service+ for a maximized product lifetime. Leave the care of your Panasonic products to the experts. In the unlikely event that something goes wrong, trust one of our qualified and Panasonic trained experts to get things back on track.

Warranty.
In accordance with the regulations, Panasonic guarantees its products against hidden defects. Moreover, Panasonic grants to the professional purchaser a commercial warranty, specific to the product families, subject to compliance of all the rules of installation and use of its products.

Panasonic Heating & Cooling Solutions customer service

Panasonic enables different channels for end users or professionals to get in touch with us:

Use our European website **www.aircon.panasonic.eu** for contacting us.
Panasonic has implemented a 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 customer service center, who are more than qualified to support Panasonic clients in 13 different languages across Europe.

Our service center in Europe for end customers:

Country	B2C support center	Opening times
Spain	900 82 87 87	Mo-Fr 9-17h
Portugal	800 78 22 20	Mo-Fr 9-17h
France	0800 805 215	Mo-Fr 9-17h
Italy	+39 2 6433235	Mo-Fr 9-17h
United Kingdom	0808 208 2115	Mo-Fr 9-17h
Ireland	1800 939 977	Mo-Fr 9-17h
Poland	800 080 911	Mo-Fr 9-17h
Denmark	+45 89 87 45 00	Mo-Fr 9-17h
Sweden	+46 85 221 81 00	Mo-Fr 9-17h
Finnland	+35 8646041590	Mo-Fr 9-17h

Country	B2C support center	Opening times
Norway	+47 69 67 61 00	Mo-Fr 9-17h
Germany	+49 611 71187211	Mo-Sat 7-18h
Hungary	+36 1 700 89 65	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
The Netherlands	+31 73 6402 538	Mo-Sat 7-18h
Belgium NL	+32 2 320 55 38	Mo-Fr 9-17h
Belgium FR	+32 2 320 55 38	Mo-Fr 9-17h
Luxemburg	+32 2 320 55 38	Mo-Fr 9-17h

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heating & cooling solutions

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www.eggeassociats.net

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.

Panasonic®

To find out how Panasonic cares for you, log on to: www.aircon.panasonic.eu

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