

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.



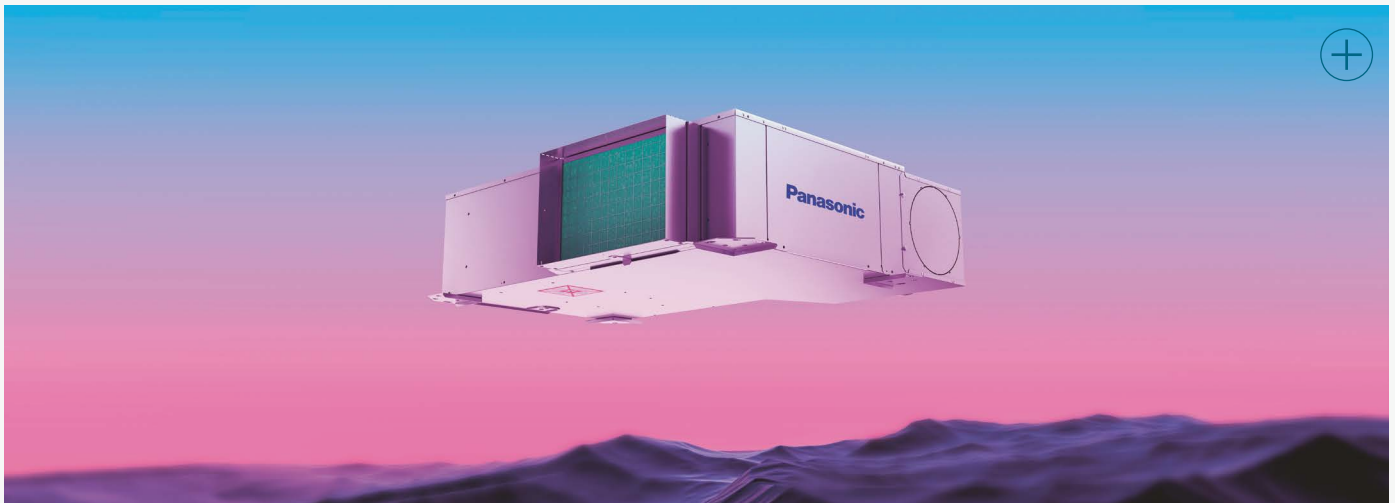
Fan coil units

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.



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.



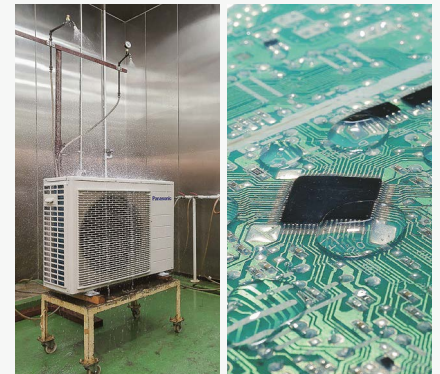
Long-term durability test.

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.

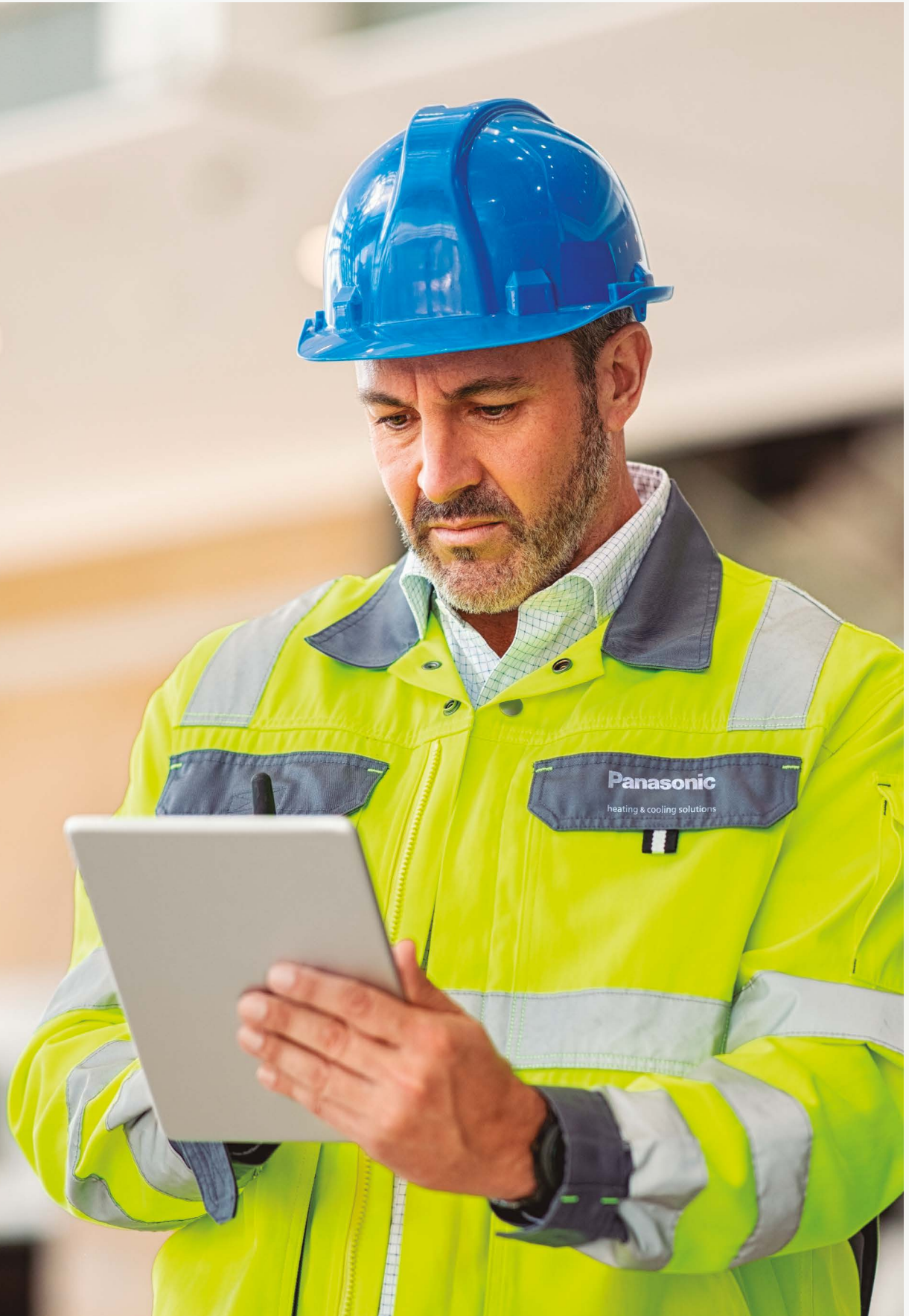
The unit - which is subject to rain and wind - complies with IPX4 waterproof specifications. Contact sections on printed circuit boards are resin-potted to prevent adverse effects caused by exposure to water (an unlikely occurrence).

The reasons to choose Panasonic as your partner

Unrivalled 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.

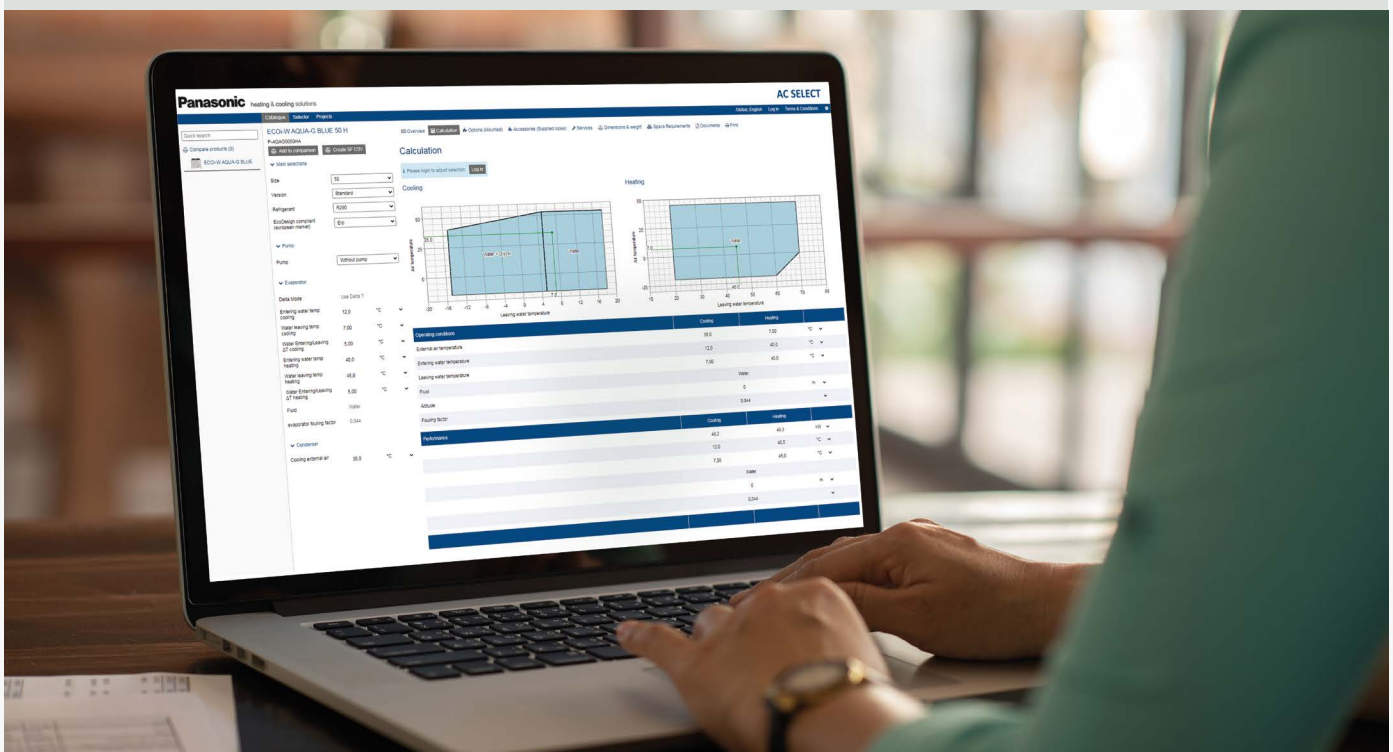
AC SELECT.

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/>

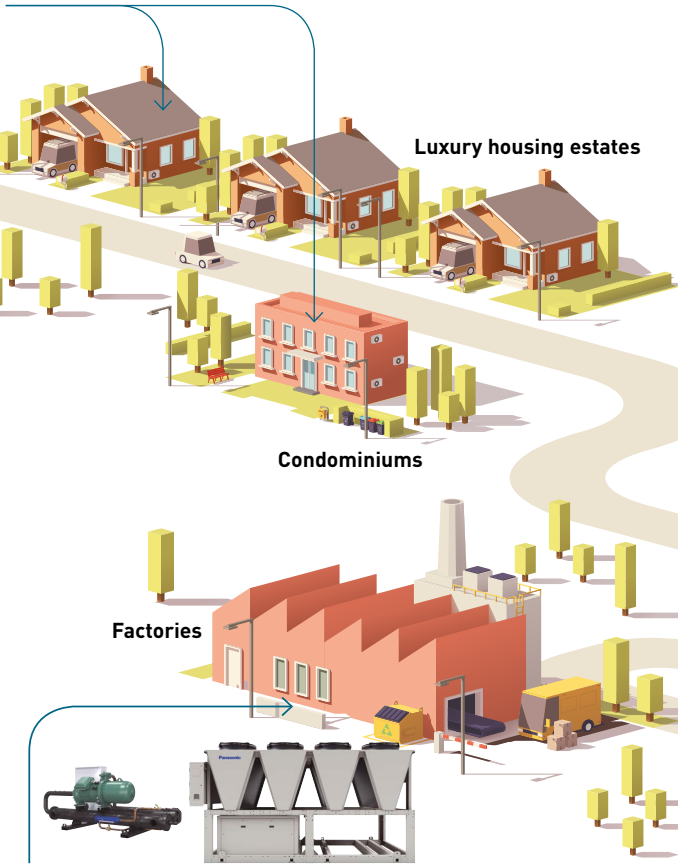


A wide coverage of application

Energy efficiency, high performance and comfort.

Chillers and heat pumps.

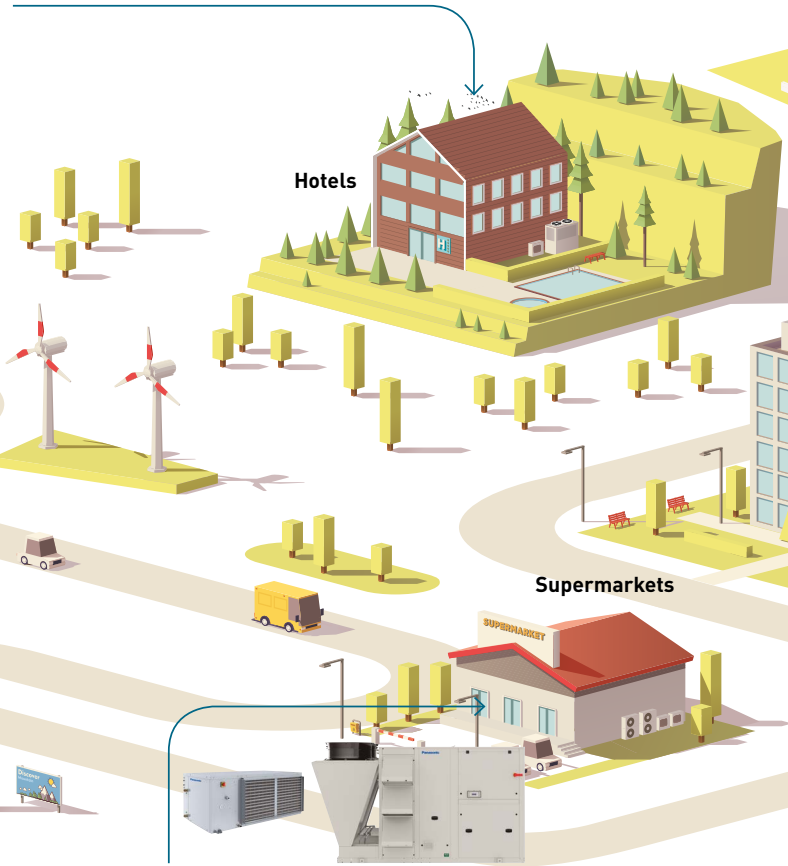
In residential applications a good indoor climate is important to ensure greater comfort and well-being. Our chillers and heat pump units with small capacities and DHW management are the ideal solutions.



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.

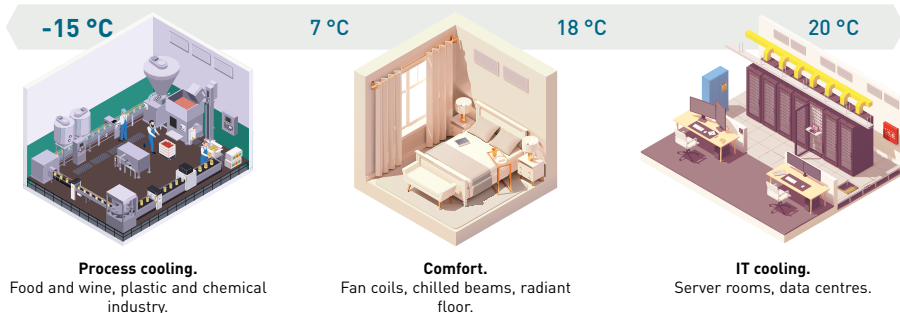
Panasonic offers a complete system thanks to the wide capacity range of its chillers, the design and low-noise operation of its fan coil units and the zone independent management of different spaces with its water source heat pumps.



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.



Water source heat pumps and rooftops.

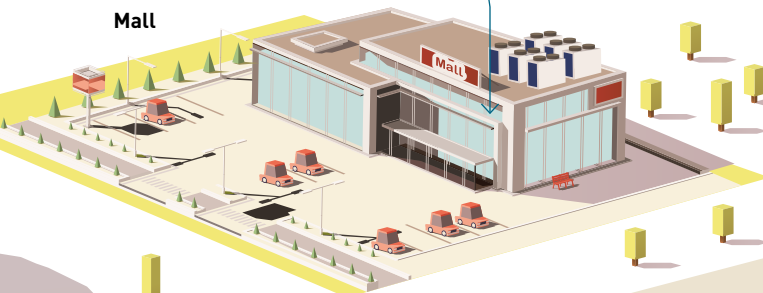
For supermarket applications, Panasonic has a wide range of solutions suitable to satisfy the required conditions: rooftops units can manage indoor ambient temperature and control the air quality, water source heat pumps have high efficiency and can allow independent zone management.

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.



Mall

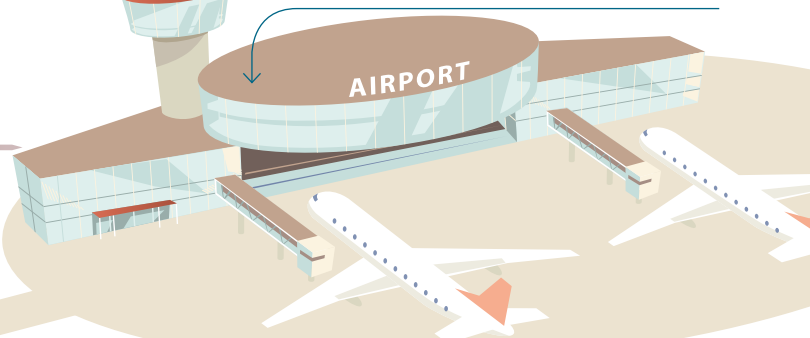


Chillers and heat pumps, and rooftops.

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.

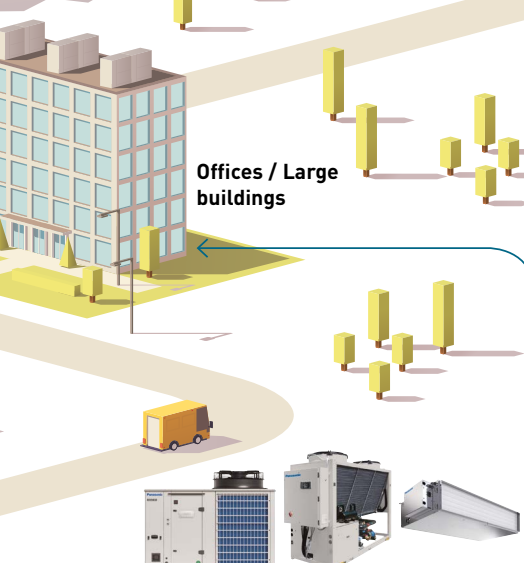


AIRPORT

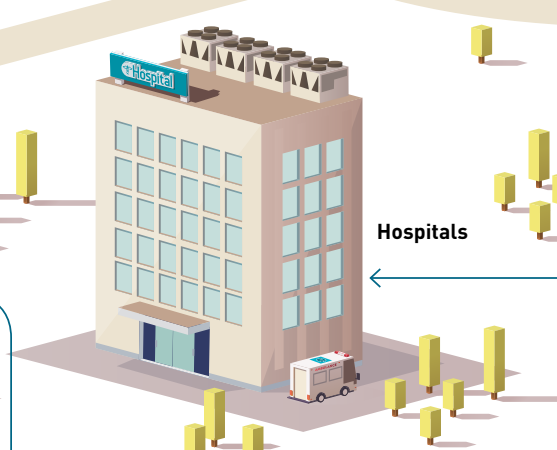


Airports

Offices / Large buildings



Hospitals



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

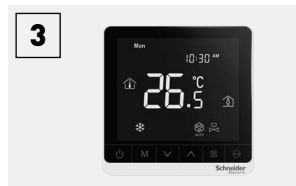
ECOi-W Series offers a reliable solution with an optimised design for service and maintenance, making it ideal for hospital applications. Remote monitoring through the ECOi-W Cloud offers enhanced service support and a highly efficient fan coil range delivers increased comfort.



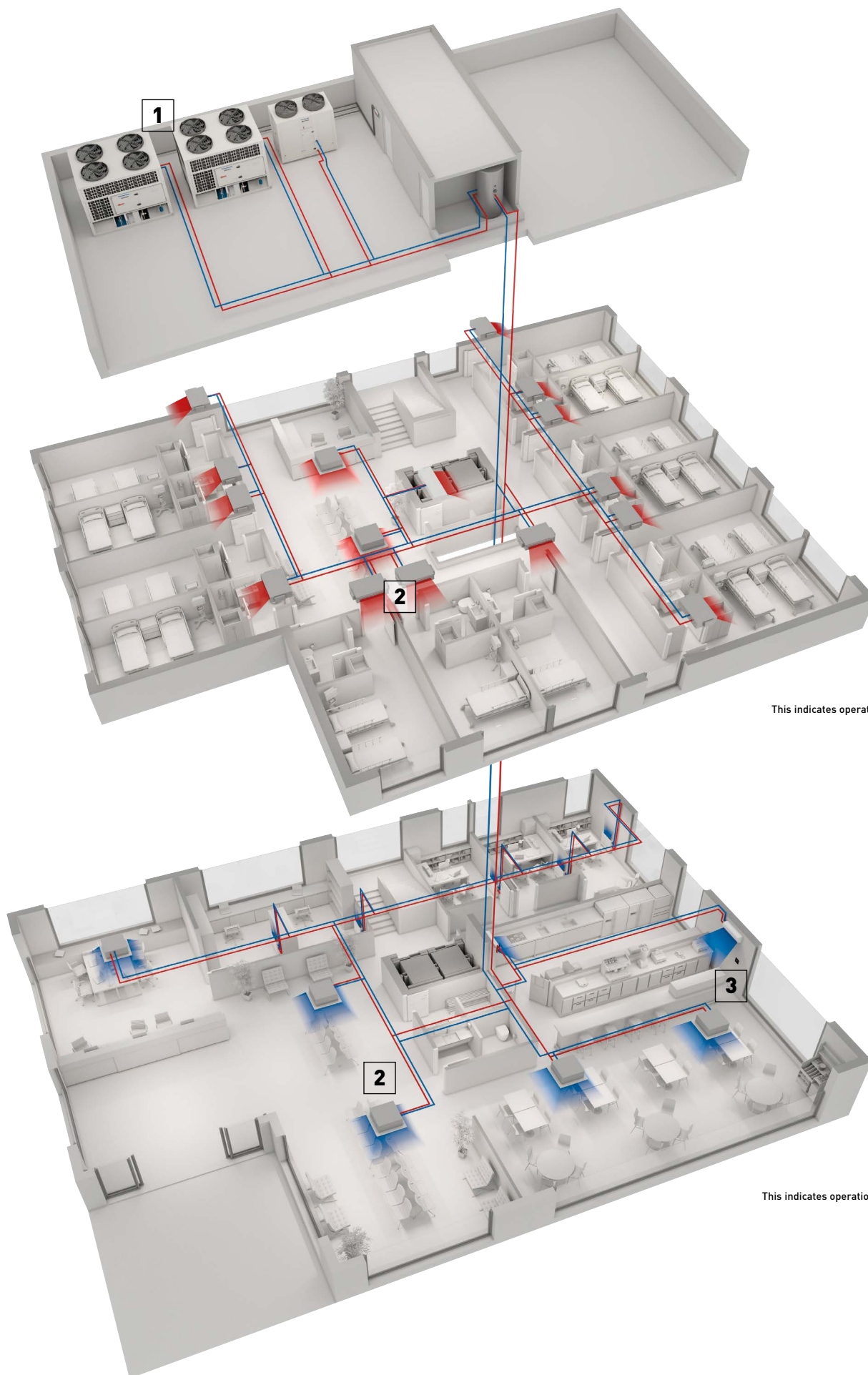
High quality chillers and heat pumps.
ECOi-W Series provides a fully customisable design to meet the business application needs, with a capacity range from 20 kW to 1650 kW. Reliable quality and an optimised design for service and maintenance are ideal for hospital projects.



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.



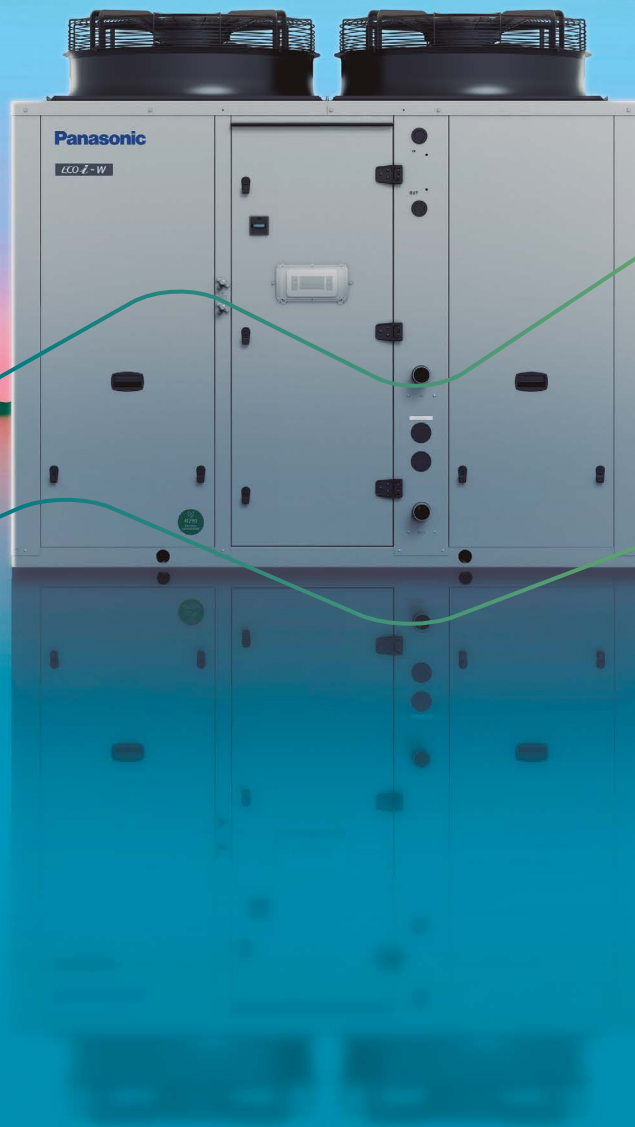
Intuitive controllers for fan coils.
Controllers with sophisticated designs provide a user friendly interface. An easy and low cost integration to building management systems.



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.

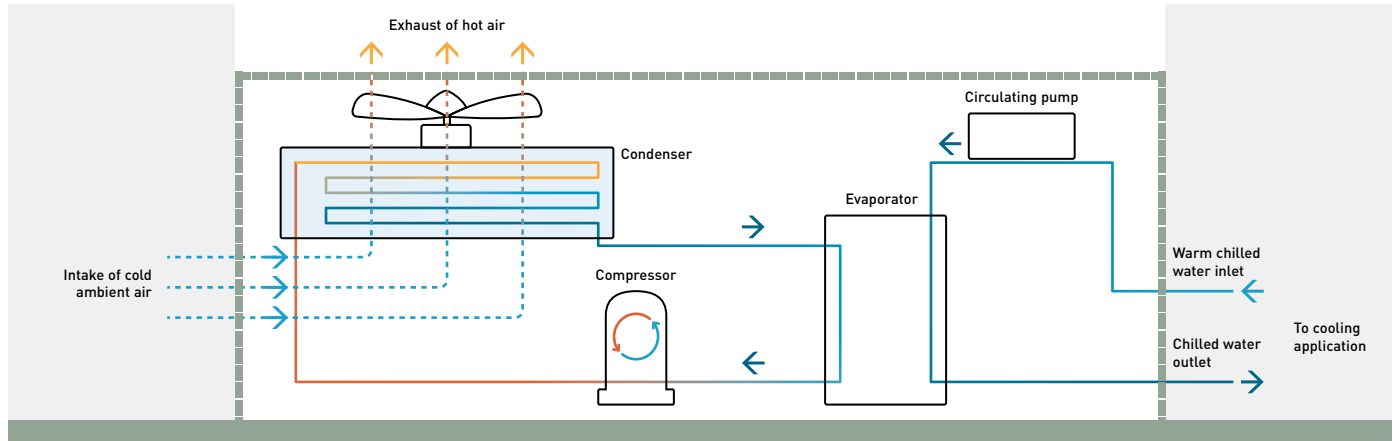


An air cooled chiller uses ambient air to cool and condense the hot refrigerant in the condenser.

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.

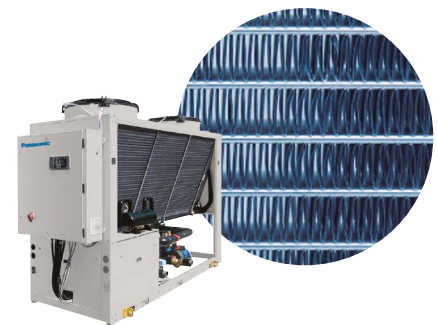
Scroll compressors have excellent low vibration and low noise properties. Compact in size and suitable for designs where space is restricted.

Screw compressors.

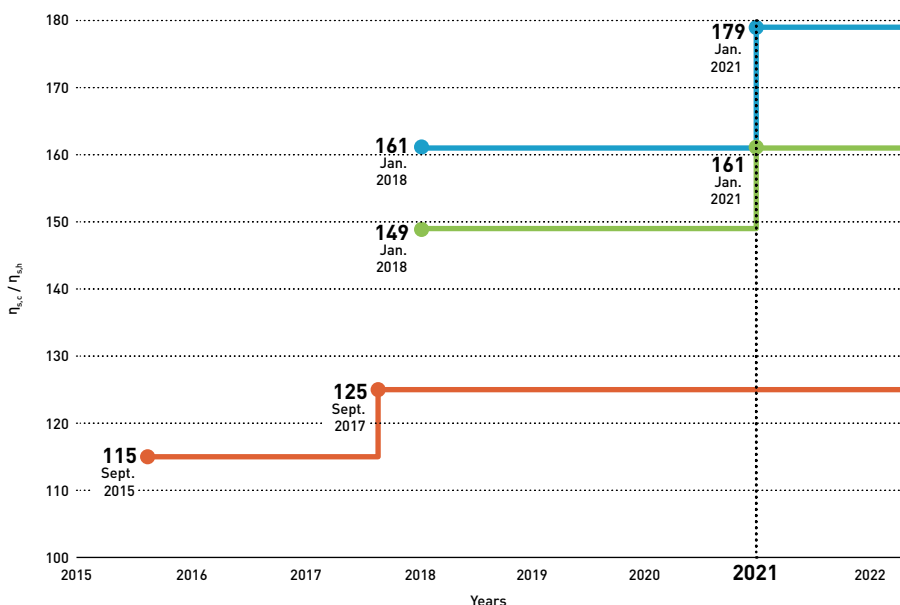
Screw compressors can be operated continuously and are therefore suitable for applications where a constant and consistent cooling load is required. Due to their high energy efficiency, our products use these compressors in combination with high-efficiency refrigerants.

Microchannel coils

Significant reduction on refrigerant charge and operating weight.



Ecodesign



Air to water comfort cooling only ¹⁾

≤400 kW.
Minimum η_{w,c} to be Ecodesign compliant.
COMMISSION REGULATION (EU) 2016/2281.

>400 kW.
Minimum η_{w,c} to be Ecodesign compliant.
COMMISSION REGULATION (EU) 2016/2281.

Air to water heat pumps ²⁾

≤400 kW.
Minimum η_{w,h} to be Ecodesign compliant.
COMMISSION REGULATION (EU) No813/2013.

>400 kW.
Minimum η_{w,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 (T_{design} -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.



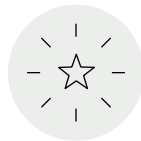
50 kW

60 kW

70 - 80 kW



Natural refrigerant R290 with GWP 3



Reliable quality



Scroll compressors

HIGH SEER HIGH SCOP
Max. 4,4¹⁾ Max. 3,9²⁾

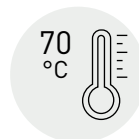
High seasonal efficiency



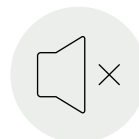
High energy efficiency class



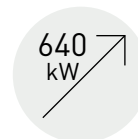
DHW management



Maximum 70 °C leaving water temperature



Quiet operation



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)
P. 30	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
	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
P. 32	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
	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
P. 34	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
	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
P. 36	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
	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
P. 38	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
	170	173,0	4,68	30,7	91	2180 x 2286 x 1160

* Dimensions without water tank.


















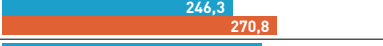





















Page	Size	Cooling capacity	SEER	Water flow (m³/h)	Sound power (dB(A))	Dimensions L x H x W (mm)	
ECOi-W Aqv C · R410A  P. 40	85	83,5	4,55	14,3	84	2555 x 2185 x 1095	
	95	93,6	4,80	16,1	84	2555 x 2185 x 1095	
	105	103,0	4,78	17,6	84	2555 x 2185 x 1095	
	115	110,1	4,80	19,0	84	2555 x 2185 x 1095	
	125	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  P. 48	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	
ECOi-W AQUA EVO C · R410A  P. 52	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  P. 56	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	

* 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)
P. 26	20	Cooling: 21 kW Heating: 20,4 kW	3,30 / 3,75	3,64	74	1477 x 1615 x 539
		20				
P. 26	30	Cooling: 28 kW Heating: 26,1 kW	3,98 / 3,68	5,92	75	1477 x 1615 x 539
		30				
P. 28	50	Cooling: 48,2 kW Heating: 49,2 kW	4,40 / 3,70	8,46	83	2215 x 1730 x 1032
		50				
		60				
		70				
P. 28	60	Cooling: 56,1 kW Heating: 61,1 kW	4,30 / 3,70	10,51	84	2180 x 2011 x 1160
		60				
		70				
		80				
P. 28	70	Cooling: 64,9 kW Heating: 73,5 kW	4,30 / 3,90	12,64	85	2180 x 2030 x 1160
		70				
		80				
		80				
P. 28	80	Cooling: 74,1 kW Heating: 83,6 kW	4,20 / 3,80	14,38	85	2180 x 2030 x 1160
		80				
		80				
		80				
P. 30	20	Cooling: 18,7 kW Heating: 19,5 kW	4,68 / 3,50	3,4	75	1000 x 1983 x 1000
		20				
		25				
		30				
		35				
P. 30	25	Cooling: 23,7 kW Heating: 26,9 kW	4,31 / 3,38	4,7	75	1000 x 1983 x 1000
		25				
		30				
		35				
		40				
P. 30	30	Cooling: 26,4 kW Heating: 29,7 kW	4,28 / 3,45	5,2	75	1000 x 1983 x 1000
		30				
		35				
		40				
		45				
P. 30	35	Cooling: 35,8 kW Heating: 37,3 kW	4,25 / 3,50	6,5	76	1000 x 1983 x 1000
		35				
		40				
		45				
		55				
P. 32	40	Cooling: 38,1 kW Heating: 41,6 kW	4,33 / 3,50	7,2	76	1000 x 1983 x 1000
		40				
		45				
		55				
		65				
P. 32	45	Cooling: 44,3 kW Heating: 48,5 kW	4,20 / 3,38	8,4	80	2180 x 1986 x 1160
		45				
		55				
		65				
		75				
P. 32	55	Cooling: 50,9 kW Heating: 58,2 kW	4,41 / 3,38	10,2	80	2180 x 1986 x 1160
		55				
		65				
		75				
		90				
P. 32	65	Cooling: 64,1 kW Heating: 67,3 kW	4,51 / 3,55	11,7	80	2180 x 1986 x 1160
		65				
		75				
		90				
		105				
P. 32	75	Cooling: 71,0 kW Heating: 76,0 kW	4,63 / 3,53	13,2	80	2180 x 1986 x 1160
		75				
		90				
		105				
		125				
P. 34	90	Cooling: 88,7 kW Heating: 88,2 kW	4,40 / 3,40	15,3	83	2180 x 2286 x 1160
		90				
		105				
		125				
		140				
P. 34	105	Cooling: 101,0 kW Heating: 101,0 kW	4,44 / 3,43	17,6	83	2180 x 2286 x 1160
		105				
		125				
		140				
		150				
P. 34	125	Cooling: 119,0 kW Heating: 119,0 kW	4,49 / 3,43	20,7	83	2180 x 2286 x 1160
		125				
		140				
		150				
		170				
P. 34	140	Cooling: 128 kW Heating: 144 kW	4,39 / 3,30	24,8	85	2856 x 2295 x 2210
		140				
		150				
		170				
		190				
P. 34	150	Cooling: 142 kW Heating: 154 kW	4,36 / 3,33	26,5	85	2856 x 2295 x 2210
		150				
		170				
		190				
		210				
P. 34	170	Cooling: 164 kW Heating: 170 kW	4,31 / 3,30	29,6	87	2856 x 2321 x 2210
		170				
		190				
		210				
		210				
P. 34	190	Cooling: 178 kW Heating: 195 kW	4,23 / 3,28	33,9	88	2856 x 2321 x 2210
		190				
		210				
		210				
		210				
P. 34	210	Cooling: 208 kW Heating: 218 kW	4,28 / 3,23	37,9	88	2856 x 2321 x 2210
		210				
		210				
		210				
		210				
P. 36	50	Cooling: 51,1 kW Heating: 56,0 kW	4,46 / 3,63	9,3	83	2180 x 1986 x 1160
		50				
P. 36	60	Cooling: 57,0 kW Heating: 63,0 kW	4,42 / 3,51	10,7	84	2180 x 1986 x 1160
		60				
P. 36	70	Cooling: 69,0 kW Heating: 75,1 kW	4,51 / 3,49	12,5	81	2180 x 1986 x 1160
		70				
P. 36	75	Cooling: 77,4 kW Heating: 83,6 kW	4,61 / 3,56	13,9	81	2180 x 1986 x 1160
		75				
P. 36	85	Cooling: 82,0 kW Heating: 90,7 kW	4,33 / 3,76	15,0	84	2180 x 2286 x 1160
		85				
P. 36	100	Cooling: 99,3 kW Heating: 110,0 kW	4,77 / 3,56	18,3	86	2180 x 2286 x 1160
		100				
P. 36	115	Cooling: 115,0 kW Heating: 125,0 kW	4,44 / 3,77	21,5	87	2180 x 2286 x 1160
		115				
P. 36	130	Cooling: 125,0 kW Heating: 139,0 kW	4,23 / 3,81	23,9	87	2180 x 2286 x 1160
		130				

* 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   P. 38	150		4,59 / 3,78	27,5	89	3789 x 2285 x 1151
	170		4,49 / 3,70	31,7	91	3789 x 2285 x 1151
ECOi-W AQV H · R410A  P. 40	85		4,25 / 3,61	17,2	84	2555 x 2185 x 1095
	95		4,68 / 3,64	17,8	84	2555 x 2185 x 1095
	105		4,63 / 3,78	19,3	84	2555 x 2185 x 1095
	115		4,17 / 3,77	20,6	84	2555 x 2185 x 1095
	125		4,33 / 3,47	23,3	88	3155 x 2185 x 1095
	140		4,28 / 3,54	25,5	88	3155 x 2185 x 1095
ECOi-W VL H · R410A  P. 44	704		3,63 / 3,41	34,7	93	4300 x 2300 x 1100
	804		3,55 / 3,42	38,6	93	4300 x 2300 x 1100
	904		3,35 / 3,28	43,6	94	4300 x 2300 x 1100
	1004		3,50 / 3,39	47,0	94	4300 x 2300 x 1100
	1104		3,53 / 3,30	52,3	95	4300 x 2300 x 1100
	1204		3,43 / 3,19	58,4	95	4300 x 2300 x 1100
ECOi-W AQUA EVO H · R410A  P. 48	140		3,80 / 3,39	25,1	90	4000 x 2500 x 1100
	170		3,95 / 3,42	28,7	90	4000 x 2500 x 1100
	230		4,13 / 3,46	39,7	92	3500 x 2500 x 2150
	260		4,05 / 3,48	45,5	93	3500 x 2500 x 2150
	280		4,10 / 3,44	48,5	93	3500 x 2500 x 2150
	300		3,83 / 3,51	53,0	94	4550 x 2500 x 2150
	330		3,80 / 3,44	56,8	95	4550 x 2500 x 2150
	360		3,93 / 3,48	62,7	95	4550 x 2500 x 2150
	400		4,65 / 3,62	70,1	92	5620 x 2500 x 2175
	450		4,53 / 3,62	78,3	93	5620 x 2500 x 2175
 P. 52	490		4,70 / 3,53	85,5	93	6680 x 2500 x 2175
	530		4,55 / 3,53	92,3	94	6680 x 2500 x 2175
	580		4,33 / —	102,0	94	7760 x 2500 x 2175
	620		4,35 / —	109,0	95	8800 x 2500 x 2175
	670		4,30 / —	118,0	95	8800 x 2500 x 2175
	750		4,30 / —	131,0	95	9950 x 2500 x 2175
	800		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)
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
P. 32 	45	57,4	2,94	80	2180 x 1986 x 1160
	55	64,5	2,89	80	2180 x 1986 x 1160
	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
P. 40 	85	92,1	3,36	84	2555 x 2185 x 1095
	95	103,2	3,29	84	2555 x 2185 x 1095
	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)
P. 44	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
	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
P. 48	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
	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

Equipment

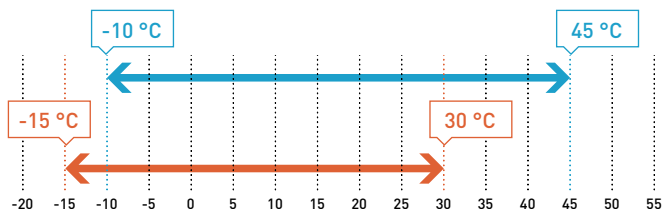
- Inverter driven compressor
- Plate evaporator (AISI 316)
- A single inverter driven 3-phase scroll compressor equipped with variable frequency brushless motor (20-120 Hz)
- 1 refrigerant circuit
- Bi-flow electronic expansion valve
- Multistage centrifugal pump as standard
- Bluefin coil
- Operating 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

Operating limits

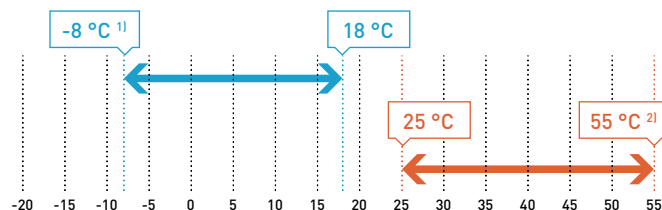
To be confirmed with AC SELECT:

<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.

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	HxWxL	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





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.



The range at a glance

- 1 version: H (heat pump)
- 4 sizes

Advantages

- A super eco-friendly 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

Equipment

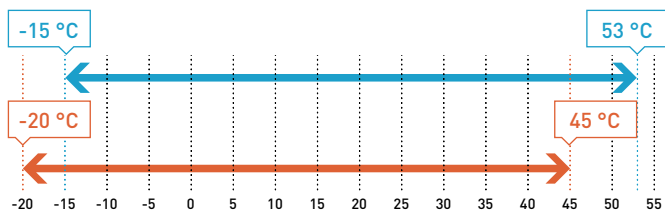
- Fan speed control. All units are equipped with EC fan technology
- Variable speed pump - option. A variable speed pump can be added to the unit for even greater energy savings
- Controller. This new high standard control system provides excellent pressure control, as well as global and optimised unit 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-performance 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

Operating limits

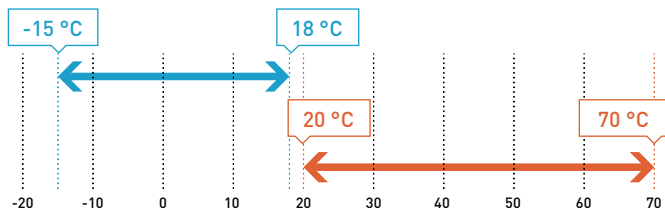
To be confirmed with AC SELECT:

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Ambient temperature.



Leaving water temperature.



AC SELECT.

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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
$\eta_{s,MT}$ 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)



HIGH SEER
4.33

HIGH SCOP
3.54





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

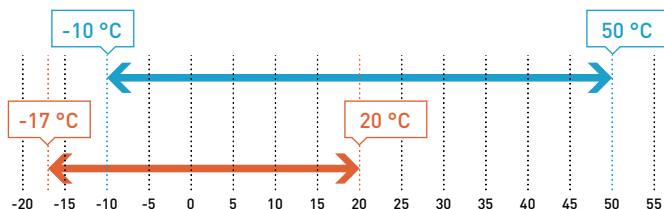
- Very high performance
- Low noise units
- Wide operating limits
- Easy maintenance: great accessibility to the internal components
- Low footprint
- Smart defrost technology: 1 defrost every 130 minutes for a constant LWT even at very low OAT (H type)
- Optimised for partial load operation
- 100% factory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

Operating limits

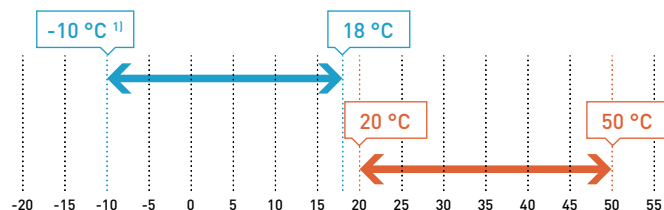
To be confirmed with AC SELECT:

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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

	Voltage	V	400	400	400	400	400
Power supply	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 1/2	1 1/2	1 1/2	1 1/2	1 1/2
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		—	5/8	5/8	5/8	5/8
Suction line	Inch		—	1 1/8	1 1/8	1 1/8	1 1/8

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.





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

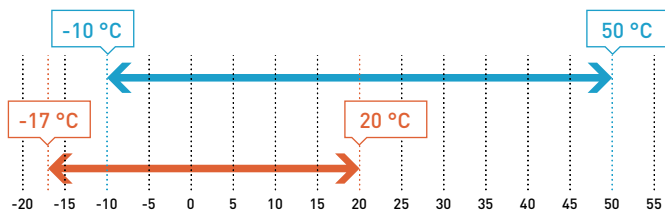
- Very high performance
- Low noise units
- Wide operating limits
- Easy maintenance: great accessibility to the internal components
- Low footprint
- Smart defrost technology: 1 defrost every 130 minutes for a constant LWT even at very low OAT (H type)
- Optimised for partial load operation
- 100% factory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

Operating limits

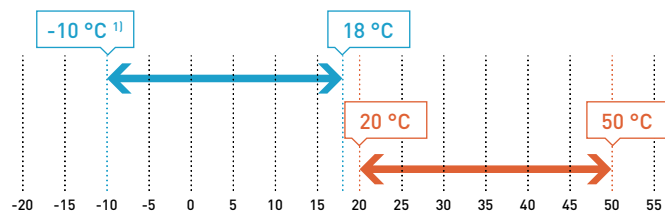
To be confirmed with AC SELECT:

<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.

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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		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	¾	¾	¾	¾	¾	¾	¾
Suction line		Inch	1 ½	1 ½	1 ½	1 ½	1 ½	1 ½	1 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. 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.





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

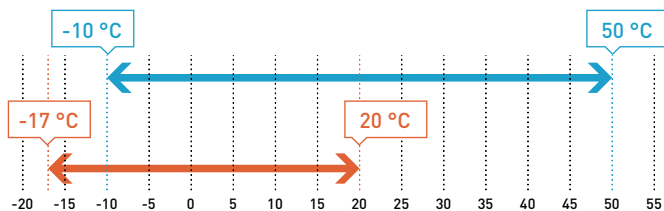
- Very high performances
- Low noise units
- Wide operating limits
- Easy maintenance: great accessibility to the internal components
- Low footprint
- Patented antifrost coil
- Smart defrost technology: 1 defrost every 130 minutes for a constant LWT even at very low OAT (H type)
- Optimised for partial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

Operating limits

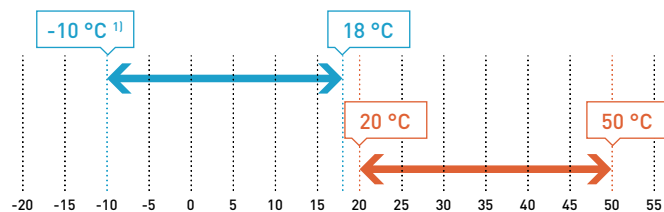
To be confirmed with AC SELECT:

<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.

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Technical performance

	Voltage	V	400	400	400	400	400
Power supply	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)	m ³ /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)	m ³ /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)	m ³ /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
	Width	mm	2210	2210	2210	2210
	Length w/o / w water tank	mm	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.





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.



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

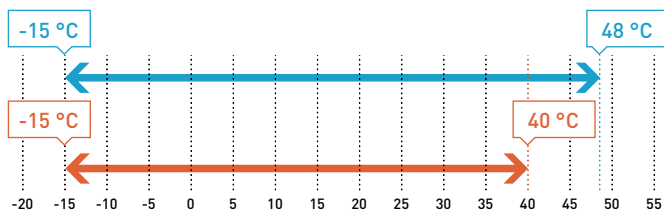
- Sustainable units: R32 refrigerant (GWP= 675)
- Very high efficiency
- Wide operating limits
- Low footprint: only 2,53 m²
- Reduced sound levels: S version (super low noise) with EC fan and compressor sound jackets
- New advanced control system
- Easy maintenance: great accessibility to the internal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

Operating limits

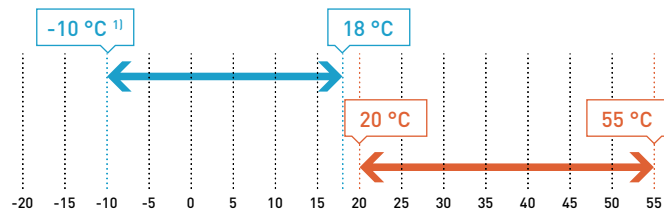
To be confirmed with AC SELECT:

<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

	Voltage	V	400	400	400	400	400	400	400	400
Power supply	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	
η_{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⁾	kW	51,1	57	69	77,4	82	99,3	115	125	
Input power ¹⁾	kW	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)8)}		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





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.



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

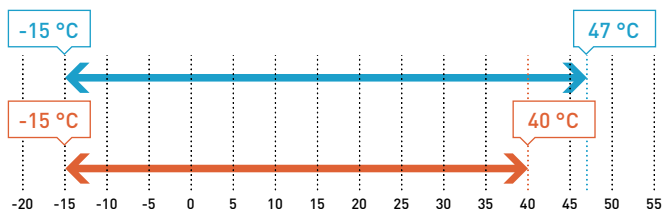
- Sustainable units: R32 refrigerant (GWP = 675)
- Very high efficiency
- Wide operating limits
- Low footprint: one of the smallest footprint on the market with an average ratio of 37 kW/m².
- Reduced sound levels: S version (super low noise) with EC fan and compressor sound jackets
- New advanced control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

Operating limits

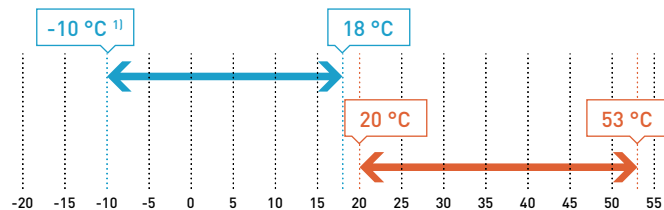
To be confirmed with AC SELECT:

<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
- 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
η_{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 1/2	2 1/2

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





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.



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

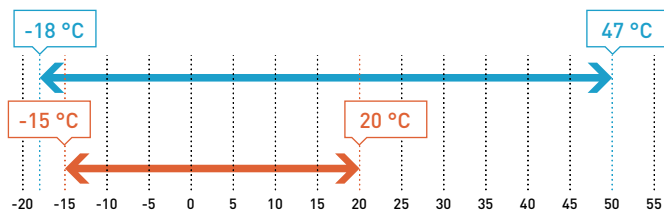
- High seasonal performances: SEER up to 4,9
- Common configuration for the different versions: easy upgrade of the units in stock or on field
- Electronic expansion device: excellent control of superheating for the best performance at full and partial load and for a safe operation
- Microchannel coils: 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

Operating limits

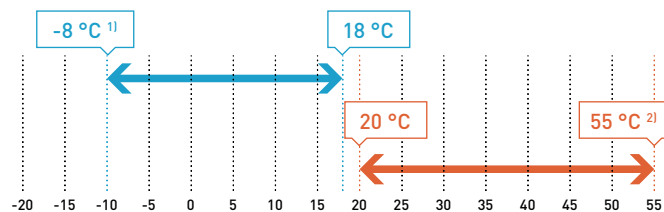
To be confirmed with AC SELECT:

<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.

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

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
	STD	°C	From 0 to 48
Outdoor air temperature	S	°C	From -18 to 45
	HT	°C	From 0 to 50



Technical performance

	Voltage	V	400	400	400	400	400	400
Power supply	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





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

		Voltage		400		400		400		400	
		Phase	Hz	Three phase		Three phase		Three phase		Three phase	
				50	50	50	50	50	50		
Power supply	Frequency	Hz	50	50	50	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	HxWxL	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	5/8	5/8	5/8	5/8	7/8	7/8
Outlet diameter		Inch	1 3/8	1 3/8	1 3/8	1 3/8	1 3/8	1 3/8

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.





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		
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		
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⁾		
		Air	°C	From -10 to 20 ¹⁾		
		STD	°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	
Outdoor air temperature		Evaporating temperature	°C	From 1 to 15		
		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	
Outdoor air temperature		Evaporating temperature	°C	1 to 15		
		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								
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								
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								
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.





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	
η_{sc} 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	HxWxL	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		7/8	7/8	1 1/8	1 1/8	1 1/8	1 1/8
Outlet diameter	Inch		1 5/8	1 5/8	2 1/8	2 1/8	2 1/8	2 1/8



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



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										
Nominal cooling capacity ²⁾	kW		140	170	230	260	280	300	330	360
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)	m ³ /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)	m ³ /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										
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)	m ³ /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)	m ³ /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										
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)	m ³ /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)	m ³ /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										
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)	m ³ /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)	m ³ /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	HxWxL	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 1/2	2 1/2	3	3	3	3	3	3
ECOi-W AQUA EVO 140-360 E - condensing unit			140	170	230	260	280	300	330	360
Dimension	HxWxL	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 5/8	1 5/8	1 5/8 - 2 1/8	1 5/8 - 2 1/8	1 5/8 - 2 1/8	2 1/8	2 1/8	2 1/8
Outlet diameter	Inch		7/8	7/8	7/8 - 1 1/8	7/8 - 1 1/8	7/8 - 1 1/8	1 1/8	1 1/8	1 1/8

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.



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.

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

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 for 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: 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)	m ³ /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)	m ³ /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)	m ³ /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)	m ³ /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	
	Length STD / EC / HPF / TR	mm	4580	5620	6680	6680	7760	7760	8900	
	Length S / EC S / HT	mm	5620	6680	7760	7760	8800	8800	11000	
Operating weight	STD / EC / HPF	kg	3028	3367	3783	4069	4317	4524	5536	
	S / EC S / HT	kg	3318	3656	4069	4369	4597	4789	6111	
	TR	kg	3409	3763	4198	4498	4832	5100	6264	
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
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	mm	5620	5620	6680	6680	7760	8800	8800	9950
	Length S / EC S	mm	6680	6680	7760	7760	8800	9850	9850	12050
Operating weight	STD / EC / HPF	kg	3769	3938	4412	4744	5214	5554	5691	6790
	S / EC S	kg	4131	4293	4764	5101	5567	5919	6059	7497
Water connections (evaporator)										
Type of water connections			Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Water inlet/outlet diameter		Inch	4	4	4	4	4	5	5	6



ECOi-W SW-N EVO 380-1260 C · R513A

Air cooled chillers.

Cooling capacity: 366 to 1240,5 kW.



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

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)

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

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

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													
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
η_{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													
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
η_{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	
	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	
	Width	mm	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.

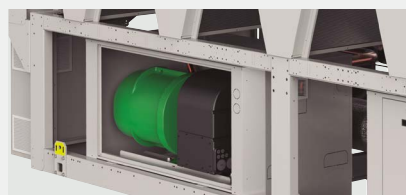
* High temperature units (HT), data with fans at maximum speed (1100 r.p.m.). ** HP units, data with fans at maximum speed (1100 r.p.m.).

Technological innovation.

All-round variable volume flow management.

Refrigerant.

Inverter driven compressor technology and electronic expansion valve.



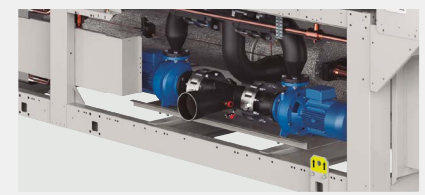
Air.

EC brushless fan motor technology.



Water.

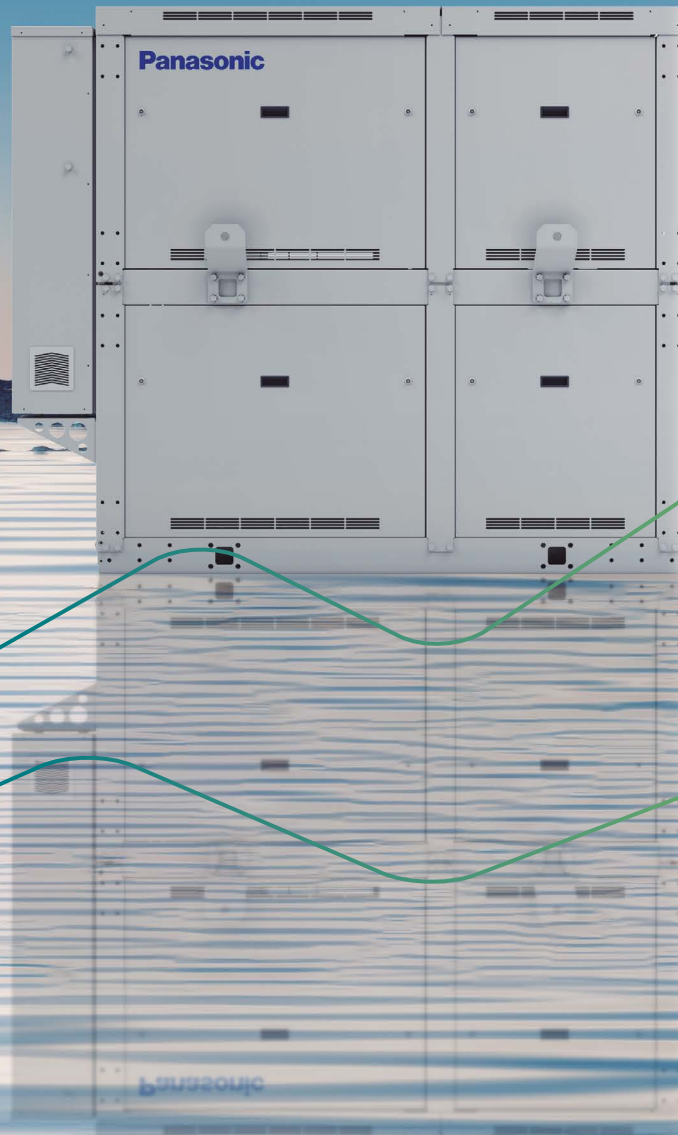
Inverter driven pump technology.



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



ECOi-W





Water cooled chillers, heat pumps and condenserless units

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ECOi-W WSW-N EVO 440-1550 C/H/R	→ 70

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.

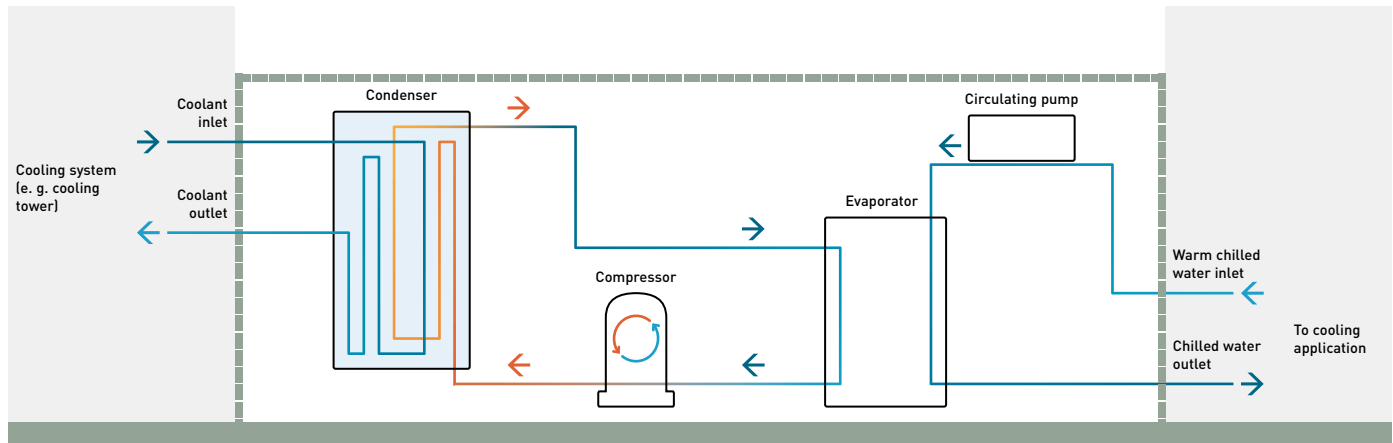


Water cooled chillers use water as the cooling medium to extract heat from the cooling circuit by cooling and condensing the refrigerant.

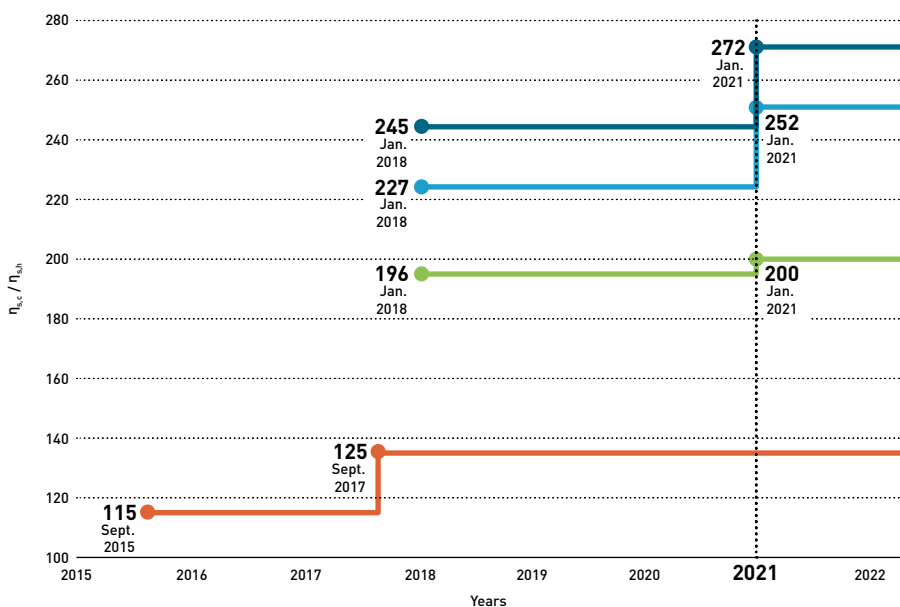
Advantages:

- 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⁾

<p>≤400 kW. Minimum η_{cc} to be Ecodesign compliant. COMMISSION REGULATION (EU) 2016/2281.</p>	<p>>400 kW and ≤1500 kW. Minimum η_{cc} to be Ecodesign compliant. COMMISSION REGULATION (EU) 2016/2281.</p>	<p>>1500 kW. Minimum η_{cc} to be Ecodesign compliant. COMMISSION REGULATION (EU) 2016/2281.</p>
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Water to water heat pumps ²⁾

<p>≤400 kW. Minimum η_{sh} to be Ecodesign compliant. COMMISSION REGULATION (EU) No813/2013.</p>	<p>>400 kW and ≤1500 kW. Minimum η_{sh} to be Ecodesign compliant. COMMISSION REGULATION (EU) 2016/2281.</p>	<p>>1500 kW. Minimum η_{sh} to be Ecodesign compliant. COMMISSION REGULATION (EU) 2016/2281.</p>
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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 [T_{design} -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
	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
P. 66	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
	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
P. 66	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
	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	

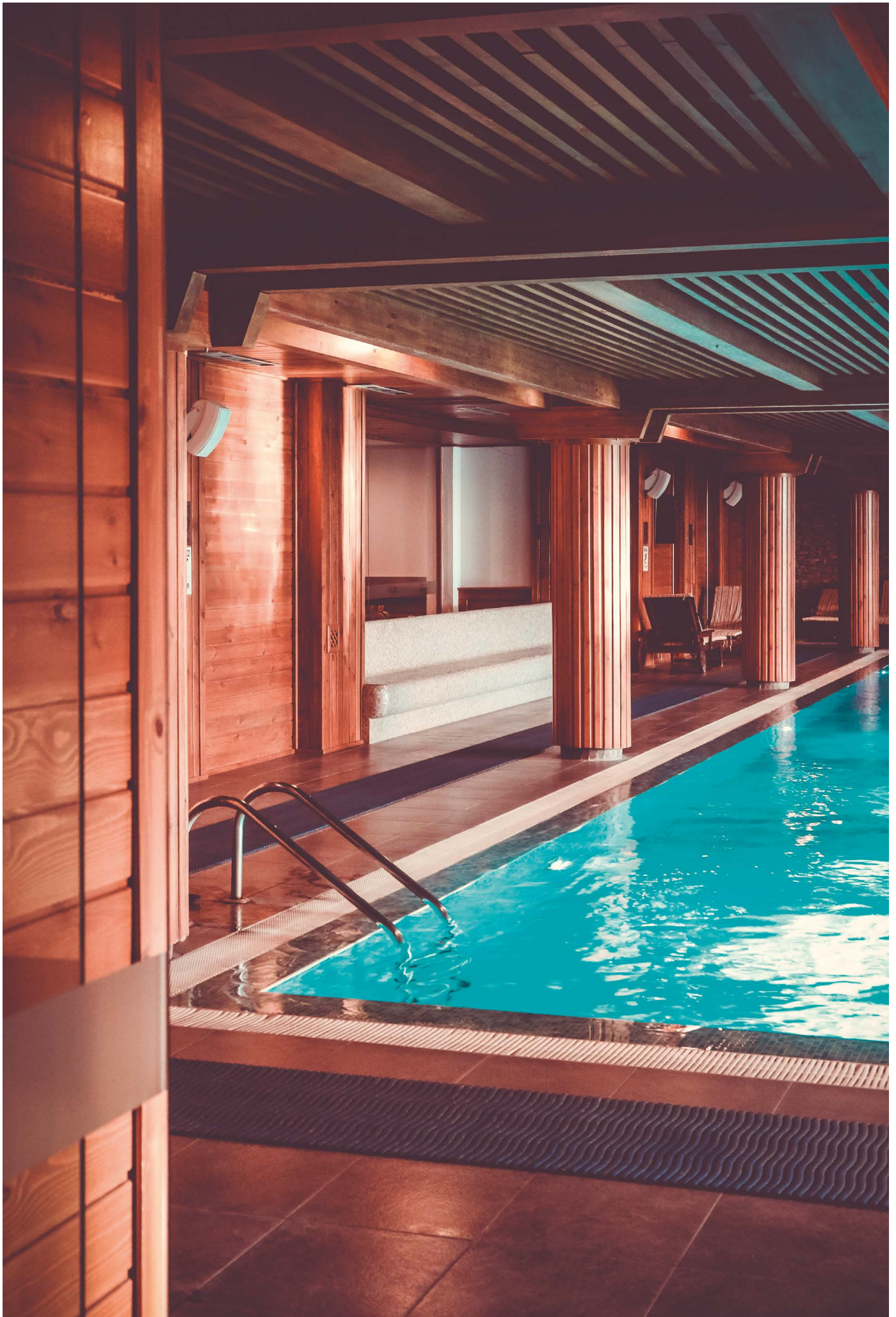


Quick selection guide - Water cooled heat pumps

Page	Size	Cooling and heating capacity	SEER	SCOP	Water flow (m³/h)	Sound power (dB(A))	Dimensions (mm)		
P. 66	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	
		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	
	P. 66		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. 68			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
	P. 68		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
			1004	291,3 331	5,10	5,85	56,88	90	2250 x 1845 x 850
P. 70		ECOi-W WSW-N EVO H	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
			440	365,9 470,3	6,53	4,46	104,9	95	4590 x 1650 x 1450
	P. 70		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	
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 (m ³ /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
	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
P. 66 	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
	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
P. 68 	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
	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
ECOi-W WSW-N EVO R 	1404	368,0	80,64	92	2250 x 1845 x 850
	1604	397,0	87,48	94	2250 x 1845 x 850
	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
	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.

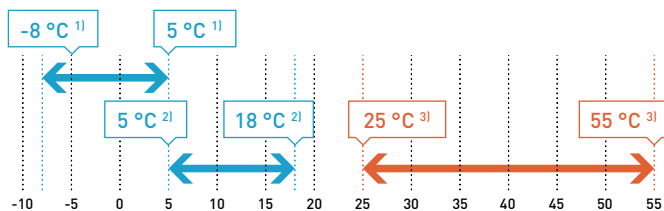
Heating capacity: 23,7 to 212,3 kW.



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 (ethylene or propylene): 40%.

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

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)

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

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

	Voltage	V	400	400	400	400	400	400	400	400	400	400	400	400	400	400
Power supply	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+++	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+++	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	1500	1500	1500	1500	1500	1500	1500	1500	
	Width	mm	455	455	455	455	455	850	850	850	850	850	850	850	850	
	Length	mm	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®	Victaulic®
Inlet/outlet diameter	Inch	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	
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	1500	1500	1500	1500	1500	1500	1500	1500	
	Width	mm	455	455	455	455	455	850	850	850	850	850	850	850	850	
	Length	mm	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 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2		
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	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	7/8	7/8	7/8	7/8	1 1/8	1 1/8	
Outlet diameter	Inch	5/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	1 1/8	1 1/8	1 3/8	1 3/8	1 5/8	1 5/8	

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.





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

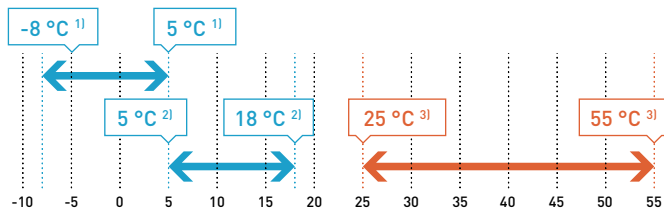
- High full load efficiency: EER up to 4,50, COP up to 3,90
- High seasonal performances: SEER up to 6,50
- Advanced electronic controller: auto-adaptive function to reduce water content in the piping system
- Condensing pressure control option: suitable for well application
- Wide range of Plug & Play 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 (ethylene or propylene): 40%.

ECOi-W WQ 524-1604 C/H/R

Cooling	Leaving water temperature	ΔT	$^{\circ}C$	From 3 to 8
Heating ¹⁾	Leaving water temperature	ΔT	$^{\circ}C$	From 3 to 15

1) Only C/H types 20-190.

Accessories and options

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

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

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	
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	
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⁾	850 ¹²⁾ / 854 ¹³⁾ / 885 ¹²⁾¹⁴⁾ - 1005 ¹³⁾¹⁴⁾
			Length	mm	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 1/2	2 1/2	2 1/2	2 1/2	4	4	4	4	4	4

ECOi-W WQ 524-1604 R - condenserless unit	524	604	704	804	904	1004	1104	1204	1404	1604
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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	7/8	7/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8
Outlet diameter	Inch	1 1/8	1 1/8	1 3/8	1 3/8	1 5/8	1 5/8	1 5/8	1 5/8	1 5/8	1 5/8

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.





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.



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	

Accessories and options

Automatic circuit breaker
 BMS interface
 Compressor stepless control
 Mechanical gauges

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

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

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			
η_{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
η_{s,c} ²⁾		254	253	254	254	258	257	254	255	254
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 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			
η_{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
η_{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⁾	kW	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⁾	kW	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.





Physical features

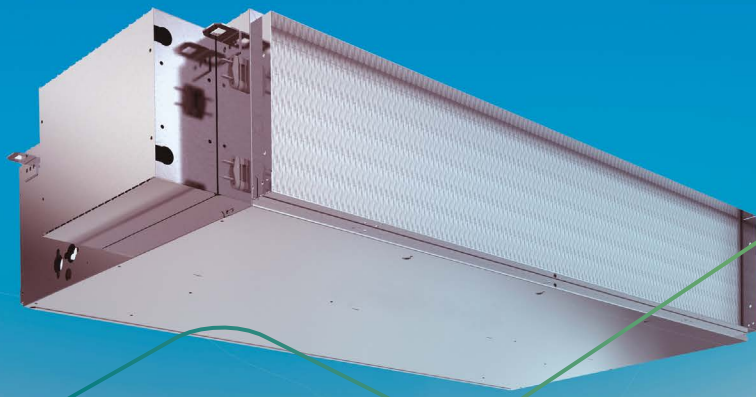
ECOi-W WSW-N EVO 440-770 C - cooling only			440	490	570	630	700	770			
Dimension	Height	mm	1650	1650	1650	1650	1650	1650			
	Height S	mm	1750	1750	1750	1750	1750	1750			
	Width	mm	1350	1350	1350	1350	1350	1350			
	Length	mm	4250	4250	4210	4210	4180	4180			
Operating weight	STD	kg	2690	2700	2875	3003	3472	3521			
	S	kg	2884	2894	3069	3197	3666	3715			
Water connection											
Connection type	Evaporator		Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	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	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	
	Height S	mm	1780	1780	1780	1780	1780	1780	1780	1780	
	Width	mm	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®	
Inlet/outlet diameter		Inch	8	8	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	
Inlet/outlet diameter		Inch	4 / 4	4 / 4	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®	Victaulic®	Victaulic®	
Inlet/outlet diameter		Inch	6	6	6	6	8	8			
Connection type	Condenser		Victaulic®	Victaulic®	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®	
Inlet/outlet diameter		Inch	8	8	10	10	10	10	10	10	
Connection type	Condenser		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	
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	
	Height S	mm	1770	1770	1770	1770	1770	1770	1770	1770	
	Width	mm	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®	
Inlet/outlet diameter			Inch	8	8	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	
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
Outlet diameter circuit 1			Inch	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
Outlet diameter circuit 2			Inch	3 1/8	3 1/8	3 1/8	3 1/8	3 1/8	3 1/8	4 1/8	4 1/8

FAN COILS



Fan coil units

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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	
	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	
	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	
	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	
	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	
	40	5,6 6,7	34	703-1125	0-110	AC/EC	1200 x 698 x 250	
Fan coil high static duct 	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	
	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	579x735x129
		700	1,5 1,2	—	156-318	—	DC	579x935x129
900		2,1 1,6	—	246-462	—	DC	579x1135x129	
1100		2,5 2,1	—	372-576	—	DC	579x1335x129	

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 a 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

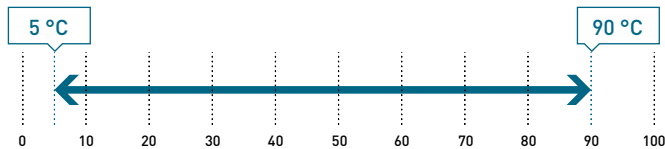


Optional controller. Advanced wired remote controller. PAW-FC-RC1

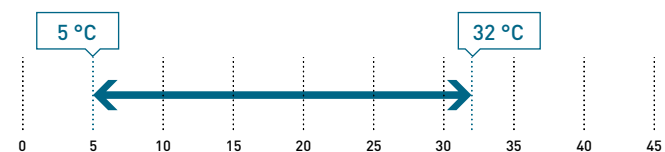
+ SEE PAGE 96 FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

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	m ³ /h	94/190/283	68/104/196	138/274/390	173/357/499	253/486/716	350/640/933	480/893/1064							
	4-pipes	m ³ /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	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	½							
4-pipes	Heating	Inch	½	½	½	½	½	½	½							
Dimensions																
With cabinet - without feet	LxWxH	mm	766x225x477	766x225x477	951x225x477	1136x225x477	1321x225x477	1506x225x477	1319x225x575							
Without cabinet	LxWxH	mm	570x220x430	570x220x430	753x220x430	938x220x430	1122x220x430	1307x220x430	1121x220x530							
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 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

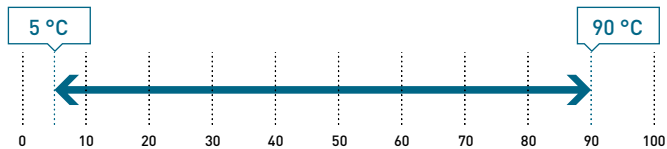


Optional controller. Wired remote controller. PAW-FC-903EC

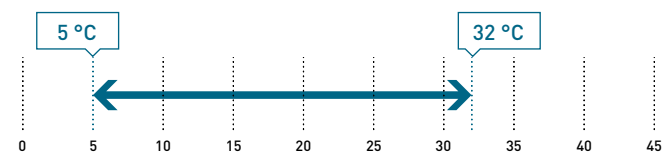
+ SEE PAGE 96 FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

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 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 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	½	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 class⁷⁾

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	B	A	A						
	FCCOP	C	C	B	A	B	B	B	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) 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 a hypothetical sound attenuation of the room and installation of 9 dB(A). 7) According to Eurovent.



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.



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

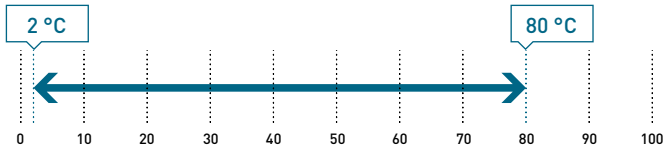


Optional controller. Advanced wired remote controller. PAW-FC-RC1

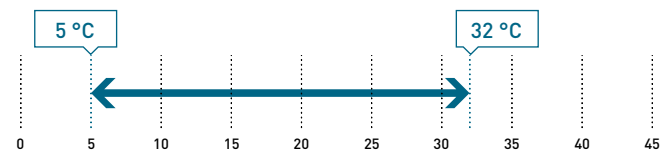
+ SEE PAGE 96 FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

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
- 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

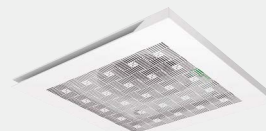
* From 20 to 40 with IRYS COANDA diffusers.

IRYS COANDA diffusers.

For a unique design and a strong coanda effect.

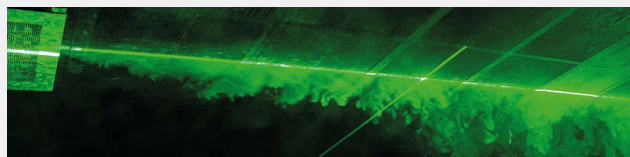


IRYS COANDA 360. 360° air diffusion.



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 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		m ³ /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 compliant following COMMISSION REGULATION (EU) 2016/2281.

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 35.



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

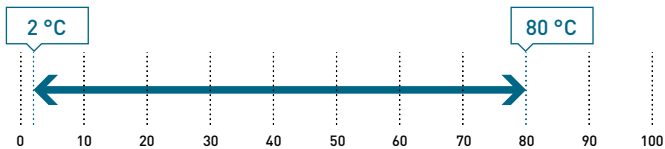


Optional controller. Wired remote controller. PAW-FC-903EC

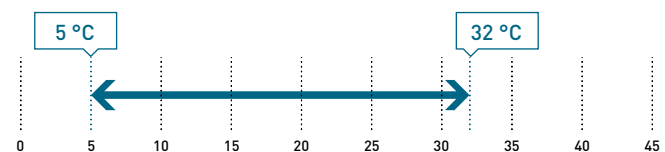
+ SEE PAGE 96 FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

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

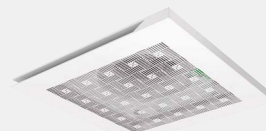
* From 20 to 40 with IRYS COANDA diffusers.

IRYS COANDA diffusers.

For a unique design and a strong coanda effect.

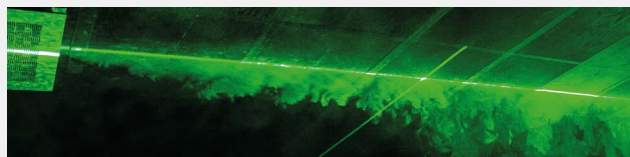


IRYS COANDA 360. 360° air diffusion.



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		m ³ /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 compliant following COMMISSION REGULATION (EU) 2016/2281.

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

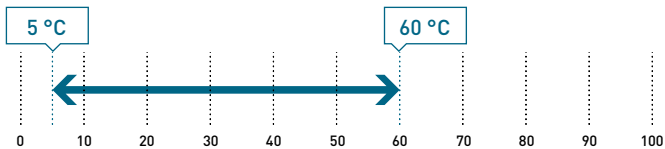


Optional controller. Advanced wired remote controller. PAW-FC-RC1

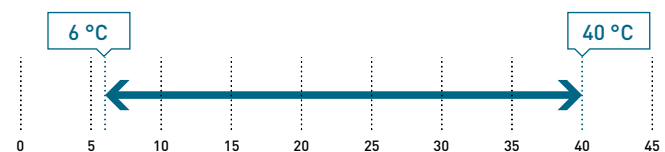
+ SEE PAGE 96 FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

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	m ³ /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		
Weight		kg		11		11		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	m ³ /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				
Weight		kg				11				

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).



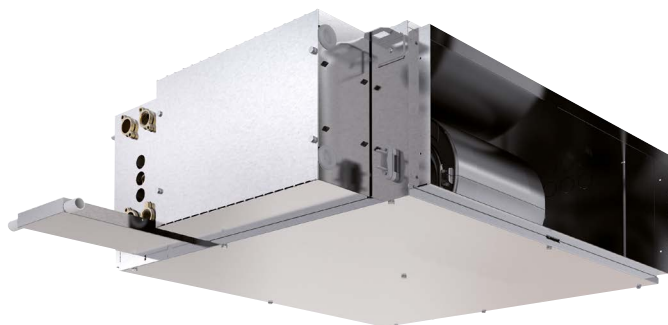
ErP compliant following COMMISSION REGULATION (EU) 2016/2281.

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.



Optional controller. WRC remote control.



Optional controller. SRC - mini BMS controller.



Optional controller. Electronic controller TControl POD glass.



Optional controller. Electronic controller TControl EASY 35.



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

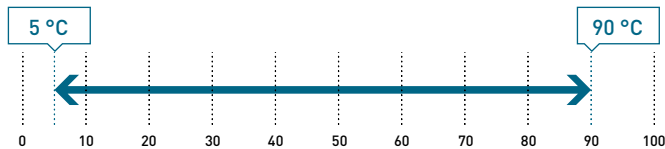


Optional controller. Wired remote controller. PAW-FC-903EC

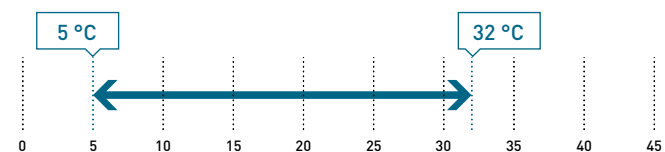
+ SEE PAGE 96 FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

Operating limits

Entering water temperature (without glycol).



Indoor air temperature.



The range at a glance

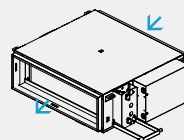
- Versions: 2-pipes, 2-pipes + electric heater and 4-pipes
- 6 sizes
- Low energy consumption EC fan: 100% controllable via a 0-10 V signal or 3 operating speeds
- Air flow from 82 to 1293 m³/h
- Static pressure up to 120 Pa
- Many air inlet/outlet configurations
- Left or right water / electric connections

Advantages

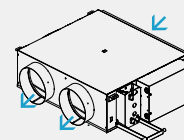
- Excellent performances: FCEER and FCCOP up to "A"
- Silent units: internal acoustic and thermal insulation
- Highly customisable: many aeraulic configurations and selection of hydraulic, and electric service side
- Ease of installation: very low height (223 mm)
- Easy maintenance: direct access to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

Air inlet/outlet configurations.

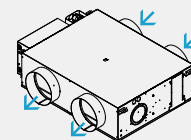
I configurations.



Rectangular return and discharge (standard).

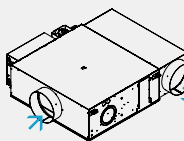


Rectangular return and circular discharge.



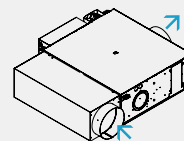
Circular return and discharge.

J configuration.



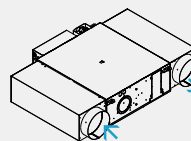
Circular return and discharge.

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	m ³ /h	82/247/357		255/383/491		360/501/599		448/541/642		300/738/1068		347/848/1293	
	4-pipes	m ³ /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	1/2		1/2		1/2		1/2		1/2		3/4	
4-pipes	Heating	Inch	1/2		1/2		1/2		1/2		1/2		1/2	
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 class⁷⁾

Fan coil duct EC fan		FCEER	C	B	B	B	B	—	A
2-pipes	FCEER	C	B	B	B	B	B	—	A
	FCCOP	C	A	B	A	A	A	—	A
4-pipes	FCEER	C	B	B	B	B	B	—	A
	FCCOP	C	A	A	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 Plologic	
Other speeds configuration (standard factory set speeds in technical features table)	
SRC - mini BMS controller	
Suspension kit	

Accessories and options	
Plologic 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 Plologic	



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

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

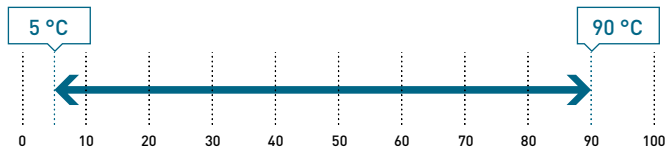


Optional controller. Advanced wired remote controller. PAW-FC-RC1

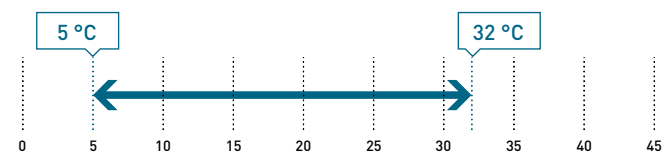
+ SEE PAGE 96 FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

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 Plologic
- Other speeds configuration (standard factory set speeds in technical features table)
- SRC - mini BMS controller
- Suspension kit
- Plologic 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 Plologic

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	1	1	1	1	1	1
Filter			G3	G3	G3	G3	G3	G3	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	230	230	230	230	230	230
	Phase		Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase
	Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	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	Gas Male threaded	Gas Male 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	1 ¼	1 ¼	1 ¼	1 ¼	1 ¼	1 ¼	1 ¼
	Cooling	Inch	½	1	1	1	1	1 ¼	1 ¼	1 ¼	1 ¼	1 ¼	1 ¼	1 ¼
4-pipes	Inch	½	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾
	Heating	Inch	½	¾	¾	¾	¾	¾	¾	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.



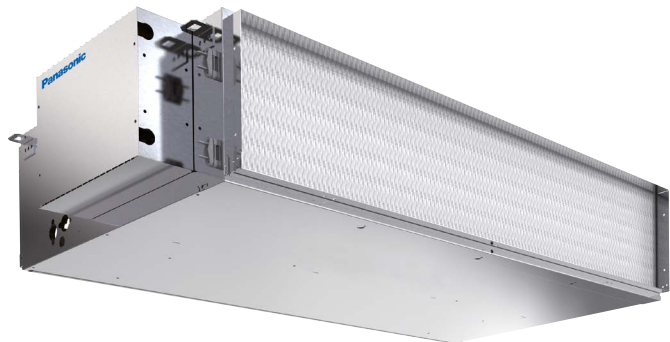
ErP compliant following COMMISSION REGULATION (EU) 2016/2281.

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.



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

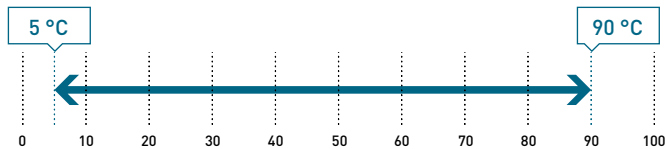


Optional controller. Wired remote controller. PAW-FC-903EC

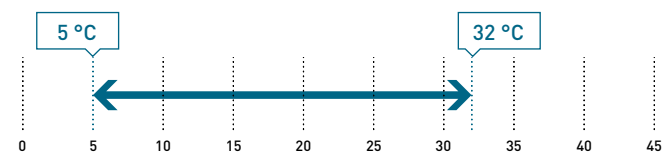
+ SEE PAGE 96 FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

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 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

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 Plologic
- Other speeds configuration (standard factory set speeds in technical features table)
- SRC - mini BMS controller
- Suspension kit
- Plologic 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 Plologic

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	m ³ /h	347/849/1293	1360/2044/2335	1360/2044/2335	1360/2044/2335	1519/2700/3098	1519/2700/3098						
	4-pipes	m ³ /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						
	Cooling	Inch	½	1	1	1	1 ¼	1 ¼						
4-pipes	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		FCEER		FCCOP	
2-pipes	FCEER	—	A	A	A
	FCCOP	—	A	A	A
4-pipes	FCEER	—	B	A	A
	FCCOP	—	B	A	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 compliant following COMMISSION REGULATION (EU) 2016/2281.

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

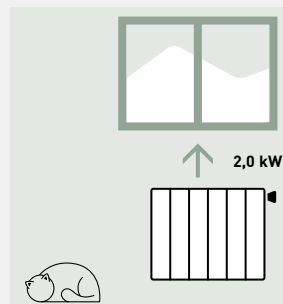
Stylish floor-standing fan coils with advanced controller

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.

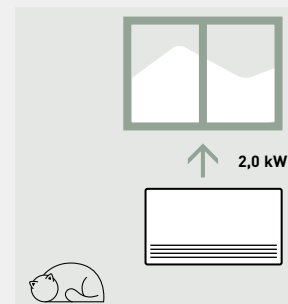
Exceptional ventilation efficiency means the motor uses considerably less energy (low wattage). The fan speed is continuously modulated by the temperature controller with proportional integral logic, with undoubted advantages for regulating the temperature and humidity in summer mode.

With standard cast radiators.




Water at 65 °C needed.

With Smart fan coil.



Water at 35 °C needed.

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

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	m ³ /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 (HxWxD)		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

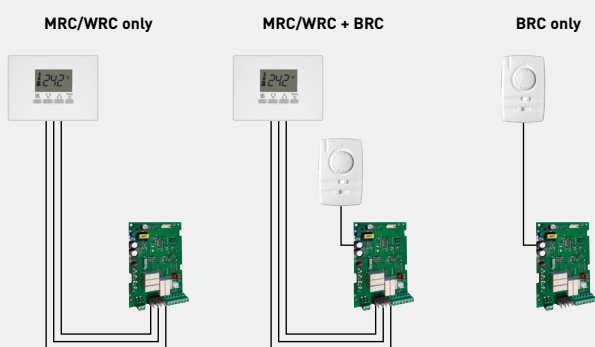
These controllers allow the control of more than one fan coil unit per controller but maintaining the same fan and temperature settings (a slight temperature variation is possible within the same zone). Plologic is the Panasonic group controller that allows you to control multiple units with a single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

3 Centralized and group controller

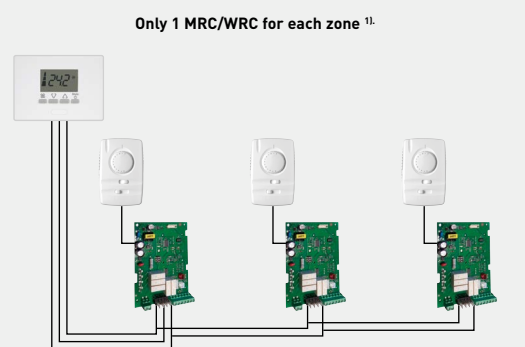
Due to the advanced technical capability, it is possible to control different climatic zones with different settings and ambient conditions. The combination of Plologic + BMS and SRC are the perfect example for this type of control.

Plologic (zone controller) with remote control

1| Plologic. Different individual control possibilities.

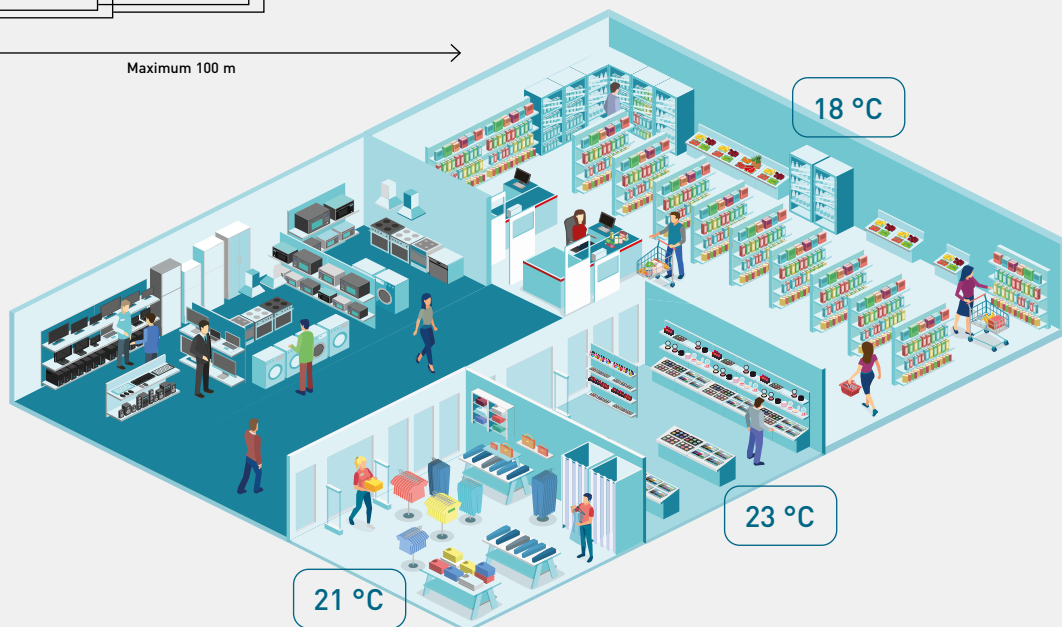
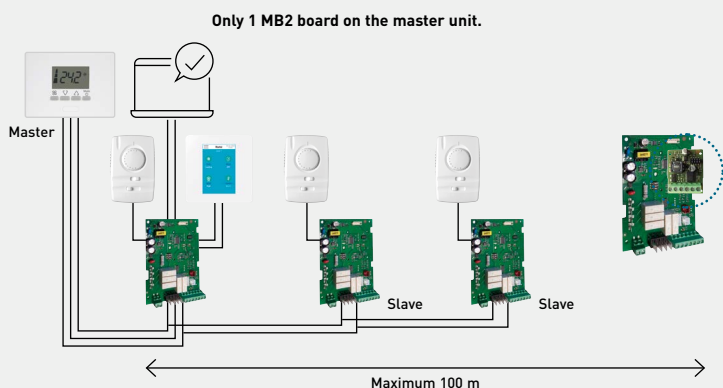


2| Plologic. Group control (without BMS).

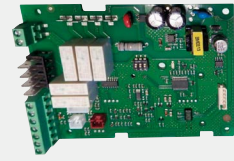


1) Up to 15 Plologic/fan coil units. Fan coil units can be of different types, with AC or EC fan motor.

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

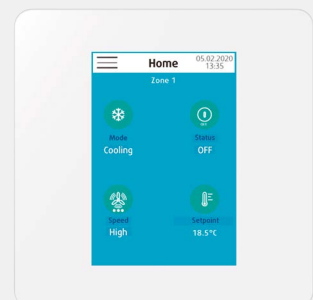
1) Changeover Auto only with 2 or 4 way valves. 2) Changeover Auto only with 4 way valves. 3) Cyclic: fan stops when the set point is reached. 4) Continuous: fan continues running after the set point is reached.

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 pumps¹⁾
- 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

Plologic.

Wall mounting (surface) or mounted on the unit.



WRC / MRC¹⁾



BRC



IRC¹⁾

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⁾	✓	✓
Plologic	✓	✓	✓ 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

Water source heat pumps	→ 102
Quick selection guide - Water source heat pumps	→ 104
ECOi-LOOP 15-30 C/H · R410A	→ 106
ECOi-LOOP-N 70-135 H · R513A	→ 108
ECOi-LOOP-N EVO C/H · R513A	→ 110
ECOi-LOOP HRW C/H and ECOi-LOOP HRWE H · R407C	→ 112
ECOi-LOOP FS H · R407C	→ 114
ECOi-LOOP-N FS H · R513A	→ 116
Water source heat pumps control systems	→ 118

Water source heat pumps

One building, different needs!

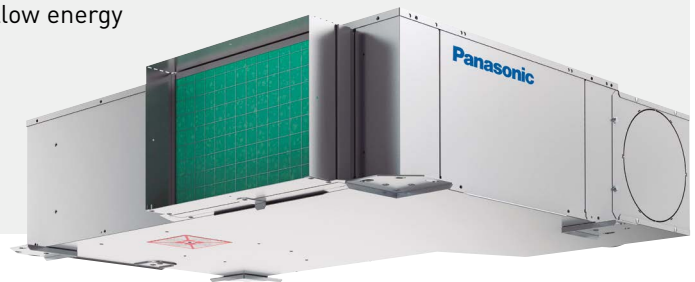
Water source heat pumps are ideal for best in class hotels, offices or shopping centers. This solution offers improved comfort by having several different indoor climates inside a building, while maintaining the energy through an internal closed water loop.



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

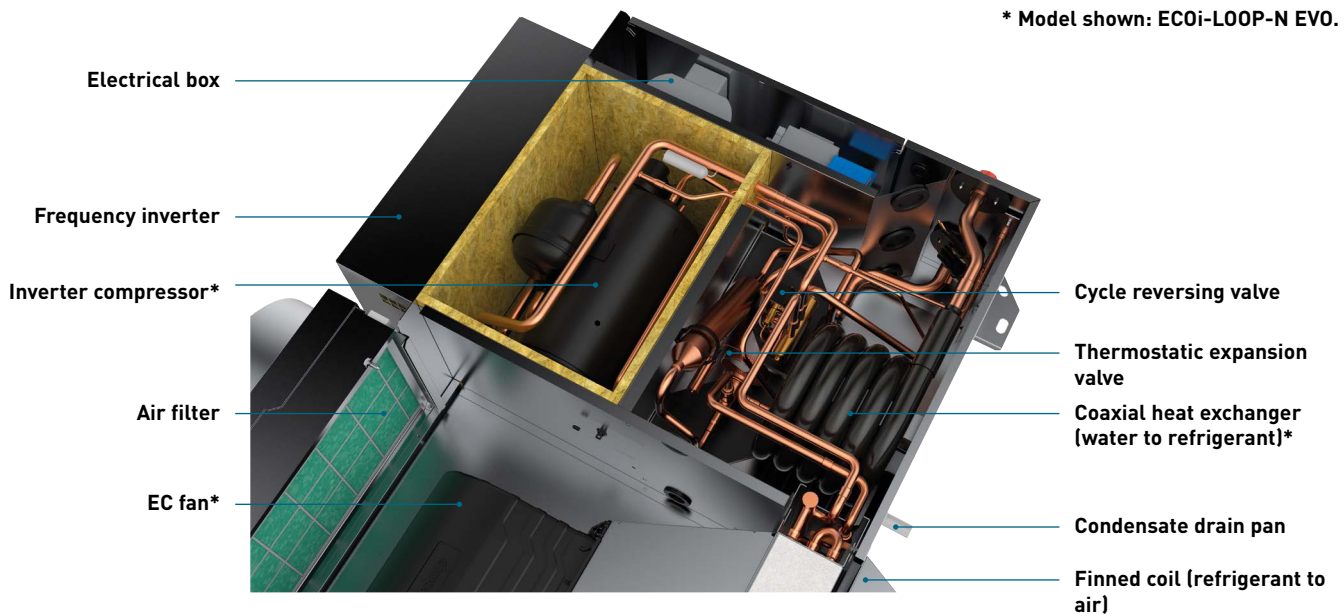
The water loop system enables distributed cooling and heating production at different temperatures with a single water circuit.

The recovery of condensation heat units in cooling can be 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⁾ (m ³ /h)	Pressure (Pa)	Fan	Dimensions (mm)	
P. 106		15		26	435	0-140	EC	900 x 530 x 250 ²⁾
		20		30	465	0-140	EC	900 x 530 x 250 ²⁾
		30		34	525	0-140	EC	900 x 530 x 250 ²⁾
P. 108		70		52	1727	0-495	EC	1142 x 762 x 516 ²⁾
		85		50	2165	0-495	EC	1142 x 762 x 516 ²⁾
		100		56	2826	0-335	EC	1333 x 818 x 580 ²⁾
		110		54	3078	0-250	EC	1333 x 818 x 580 ²⁾
		120		55	3309	0-350	EC	1333 x 818 x 580 ²⁾
		135		57	3677	0-260	EC	1333 x 818 x 580 ²⁾
P. 110			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⁾ (m ³ /h)	Pressure (Pa)	Fan	Dimensions (mm)	
P. 112	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	
	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	
P. 114	ECOi-LOOP FS H · R407C	7	1,9 2,4	37	400	0	AC/EC	1138 x 251 x 821 ⁴⁾
		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⁾
P. 116	ECOi-LOOP-N FS H · R513A	7	1,7 1,8	34	340	0	AC/EC	1138 x 260 x 821 ⁴⁾
		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.

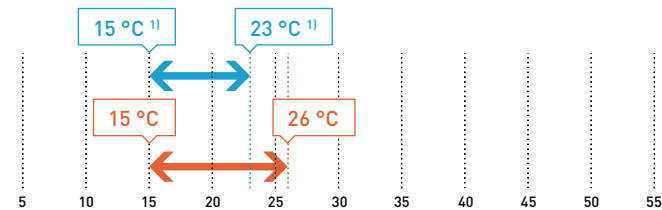


Optional controller.
SRC - mini BMS controller.

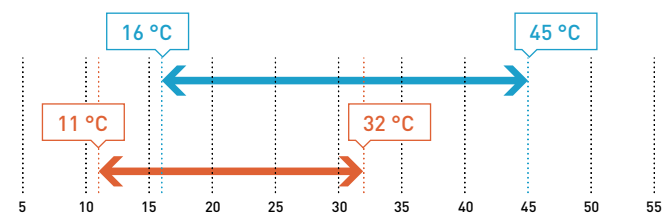
+ SEE PAGE 118 FOR MORE DETAILS ABOUT WATER SOURCE HEAT PUMPS CONTROL SYSTEMS

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	m ³ /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
	Phase		Single phase	Single phase
	Frequency	Hz	50 ±10%	50 ±10%
Input power ³⁾	Cooling	W	365	471
	Heating	W	389	491
Electric heating coil ⁴⁾	Number / capacity	- / W	1 / 600+600	1 / 800+800
	Input power	W	1200	1600
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
Sound power - discharge	Lo / Med / Hi	dB(A)	45,6 / 49,1 / 53	49,1 / 53,6 / 58,3
Sound pressure ⁵⁾	Lo / Med / Hi	dB(A)	27,1 / 30 / 33,5	30 / 34,1 / 38,4
NR ⁵⁾	Lo / Med / Hi		22,4 / 25,7 / 29,4	25,8 / 30,1 / 34,4
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
Sound power - discharge	Lo / Med / Hi	dB(A)	32,2 / 35,2 / 38,5	34,7 / 38,5 / 42,5
Sound pressure ⁵⁾	Lo / Med / Hi	dB(A)	23,2 / 25 / 27,3	24,8 / 27,7 / 31
NR ⁵⁾	Lo / Med / Hi		18,8 / 20,4 / 22,7	20,1 / 23 / 26,4
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



HIGH SEER
5,85

HIGH SCOP
5,70





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.

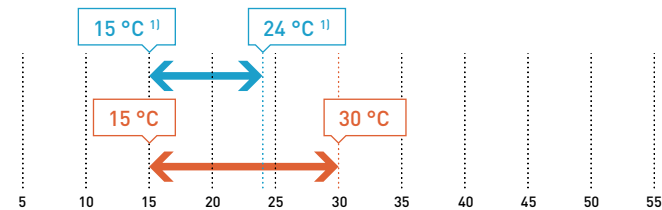


Optional controller.
SRC - mini BMS controller.

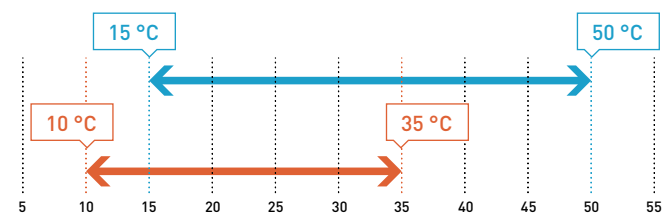
+ SEE PAGE 118 FOR MORE DETAILS ABOUT WATER SOURCE HEAT PUMPS CONTROL SYSTEMS

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)	m ³ /h	1123	1407	1837	2001	2157	2390
	Med (MS)	m ³ /h	1425	1786	2331	2539	2730	3034
	Max (nominal) (HS)	m ³ /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	
	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 a 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





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.



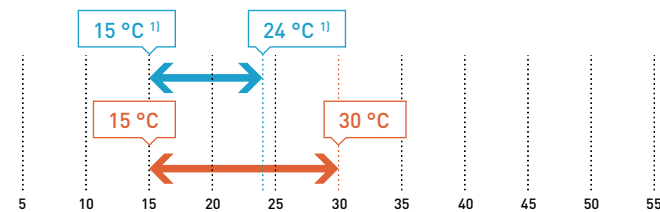
Optional controller.
SRC - mini BMS controller.



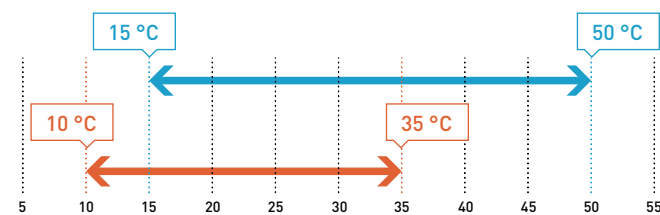
SEE PAGE 118 FOR MORE DETAILS ABOUT WATER SOURCE HEAT PUMPS CONTROL SYSTEMS

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 aerologic 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⁾	m ³ /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



HIGH SEER
4,25

HIGH SCOP
4,53





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.

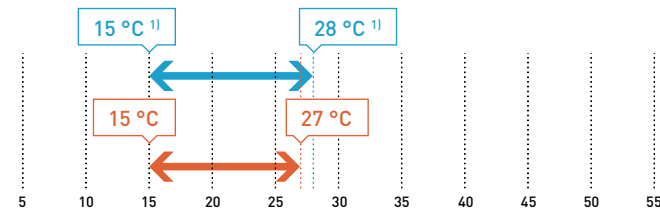


Optional controller.
SRC - mini BMS controller.

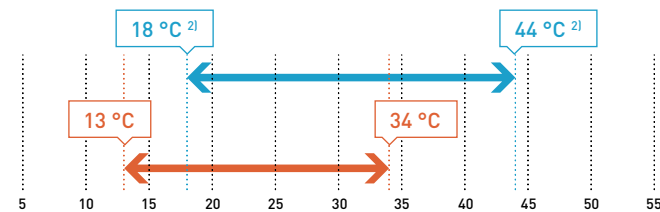
+ SEE PAGE 118 FOR MORE DETAILS ABOUT WATER SOURCE HEAT PUMPS CONTROL SYSTEMS

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 m³/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.

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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	m ³ /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	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	
	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	
	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	
Input power ³⁾	Cooling	W	1557	2118	1981	2658	2357	3044	2909	3584	3423	4200	4989	4278	6280	5279	6317	5954	
	Heating	W	1611	2332	2382	2983	2475	3460	3203	3920	3479	4300	5150	5098	7347	6188	7895	7115	
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 / 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	
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	
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





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.

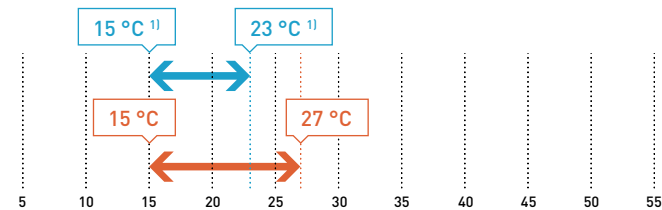


Optional controller.
SRC - mini BMS controller.

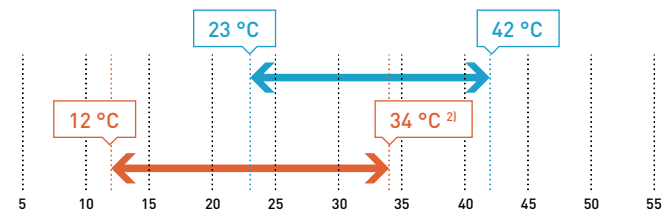
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Operating limits

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 routing 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

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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	m ³ /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 x 20	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)	LxWxH	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)	LxWxH	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)	LxWxH	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)	LxWxH	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





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.

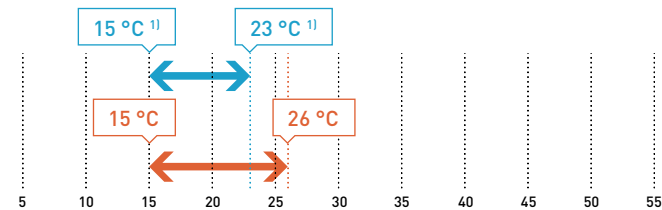


Optional controller.
SRC - mini BMS controller.

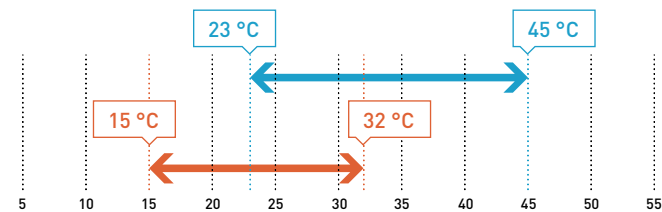
+ SEE PAGE 118 FOR MORE DETAILS ABOUT WATER SOURCE HEAT PUMPS CONTROL SYSTEMS

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 routing 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⁾			345 / 355	480 / 487
EER according to EN14511 (with EC / AC fan)			4,9 / 4,75	4,25 / 4,19
Heating capacity ³⁾			1790	2630
Input power (with EC / AC fan) ²⁾			395 / 405	610 / 617
COP according to EN14511 (with EC / AC fan)			4,6 / 4,41	4,31 / 4,26
Ventilation				
Air flow	Min	m ³ /h	250	340
	Nominal	m ³ /h	340	400
	Max	m ³ /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



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.

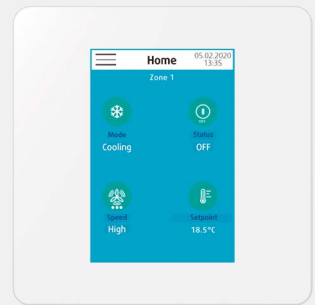
With the SRC you can create up to 15 zones including several Panasonic units belonging to the same product lines ¹⁾.

- 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:

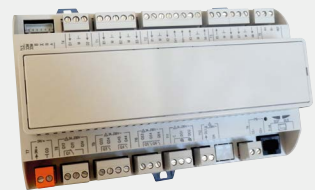
- OFF / Comfort / ECO

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

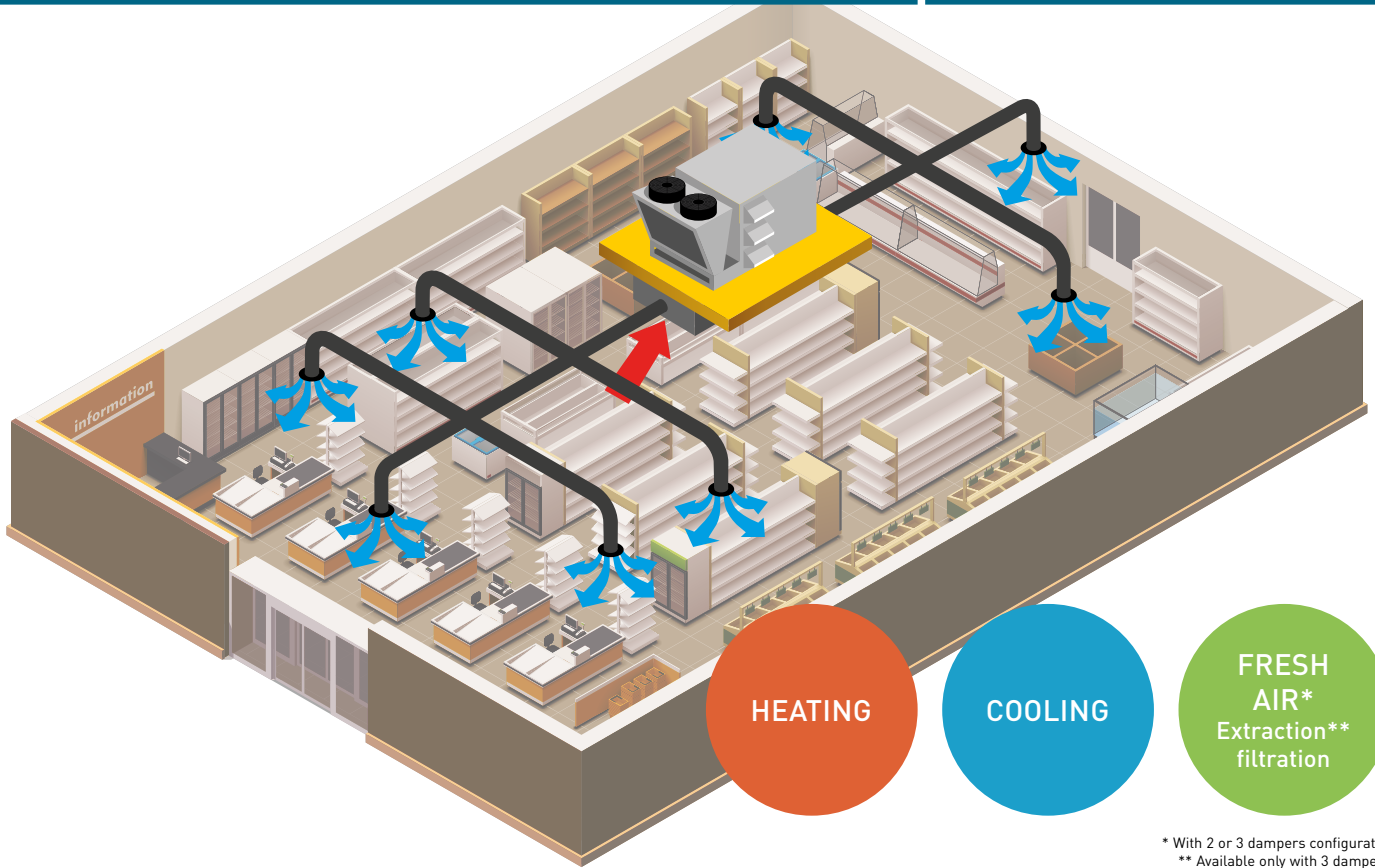
Rooftops	→ 122
Quick selection guide - Rooftops cooling only	→ 124
Quick selection guide - Rooftops heat pump	→ 124
Energy recovery system configurations	→ 125
ECOi-RT C/H · R410A	→ 126
ECOi-RT-Z H · R32	→ 128

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.

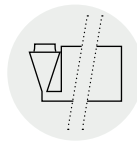




* With 2 or 3 dampers configurations.
 ** Available only with 3 dampers configuration.



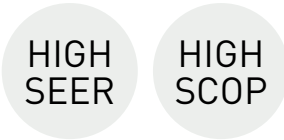
Self-contained solution, compact and mono-bloc



Capacity range from 50 to 150 kW



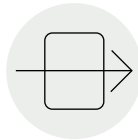
Refrigerants: R410A / R32



High SEER and SCOP

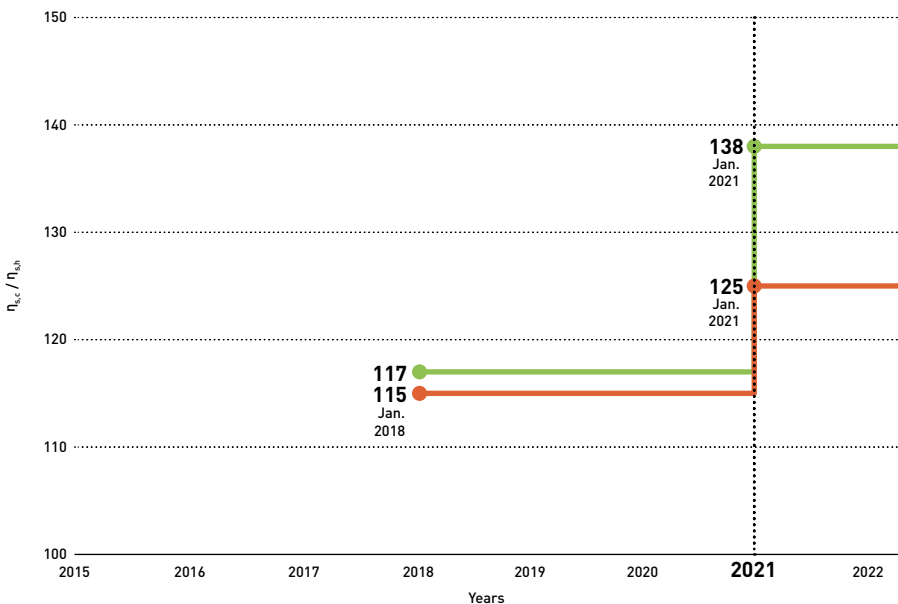


Very high external static pressure



Extractible drain pan

Ecodesign



Air to air rooftops cooling only.

Minimum η_{cool} to be Ecodesign compliant. COMMISSION REGULATION (EU) 2016/2281.

Air to air rooftops heat pump.

Minimum η_{heat} 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
P. 128	ECOi-RT-Z H · R32				
	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/>



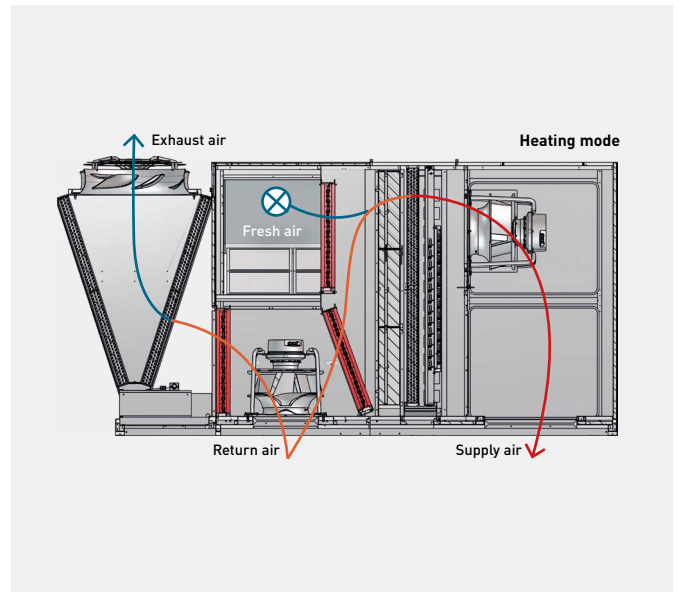
Energy recovery system configurations

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.

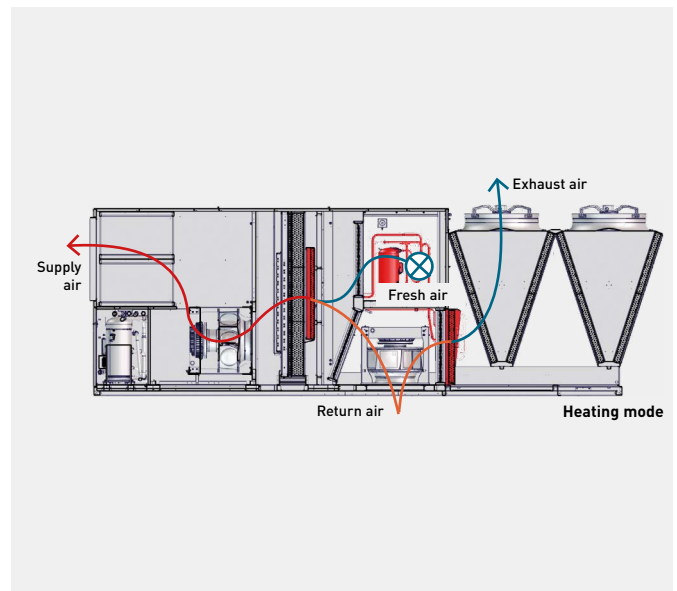


TRECO - thermodynamic energy recovery (3 dampers)

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%

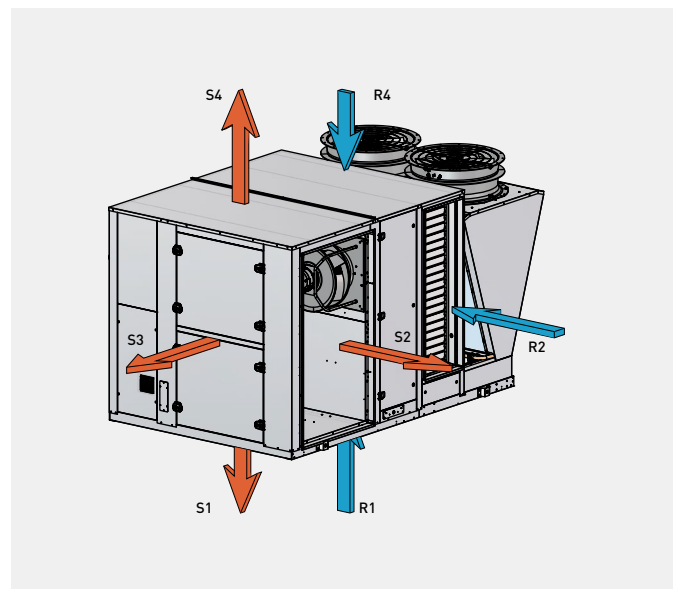
* Nominal conditions. Pc: cooling capacity / Ph: heating capacity.
** TRECO is not available for the R32 rooftops.



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.

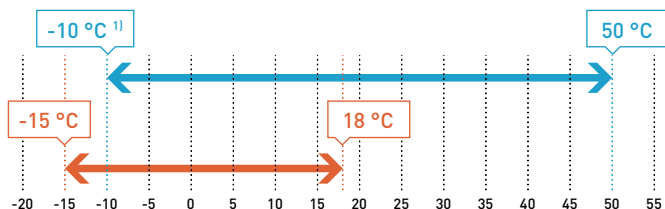


Operating limits

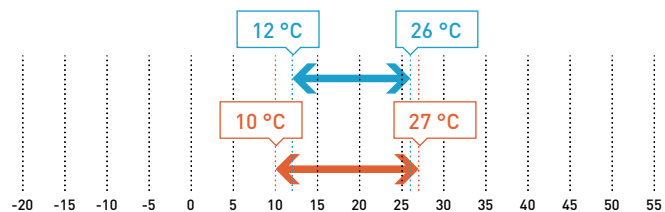
To be confirmed with AC SELECT:

<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 aeratic configurations (bottom, side, front, top)
Modbus / BACnet
RECO or TRECO energy recovery
Room temperature sensor
Sensors (VOC, enthalpy, CO ₂)
Smoke detector

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 aeratic 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

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
η_{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
η_{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
η_{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
	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
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	m ²	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	m ³ /h	7760	9200	11440	14000	15600	17200	20400	24000	25400
	Nominal	m ³ /h	9720	11500	14300	17500	19500	21500	25500	28000	30000
	Maximum	m ³ /h	11640	13800	17160	21000	23400	25800	30600	33600	36000
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	m ²	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	m ³ /h	9800	13000	13000	20000	20000	20000	20000	15500	15500
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
	H type	dB(A)	80	83	80	81	85	87	91	91	92
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
	Floor	mm	2895	2895	2895	3295	3295	3295	3295	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.



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



ECOi-RT-Z H · R32

Rooftop heat pump units.

Cooling capacity: 106 to 139 kW.

Heating capacity: 106 to 142 kW.



CO₂ carbon footprint
reduced by **-80%***

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



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

Equipment

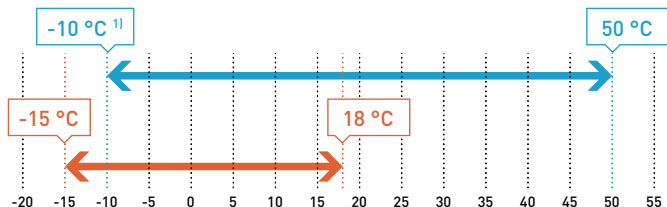
- 2 refrigerant circuits for an optimised defrost logic. They are both completely closed in a separate compartment to reduce noise level. Each circuit comprises of 1 Scroll compressor covered with a sound jacket, Indoor and outdoor coils, 4 way reversing valve, filter dryer, sight glass, thermostatic 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

Operating limits

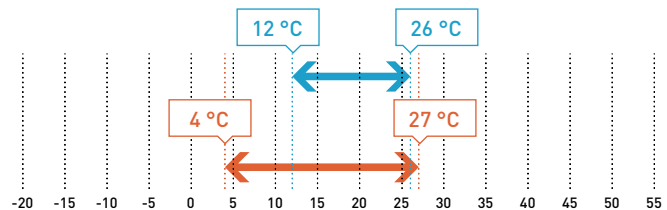
To be confirmed with AC SELECT:

<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 LFP plug fans



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
P_{design} ^{2) 3)}	kW	106	119	139
SEER ^{2) 3)}		3,82	3,82	3,67
Energy efficiency class ^{2) 3)}		B	B	B
η_{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
P_{design} ^{2) 3)}	kW	100	118	140
SCOP ^{2) 3)}		3,36	3,56	3,32
Energy efficiency class ^{2) 3)}		B	B	B
η_{s,h} ^{2) 3)}		131	130	130
Electrical data				
Power supply	Voltage	V	400	400
	Phase		Three phase	Three phase
	Frequency	Hz	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
	Nominal	m ³ /h	19200	21500
	Maximum	m ³ /h	23040	25800
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
	Floor		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



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.



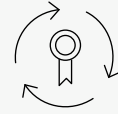
Maintenance.

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.

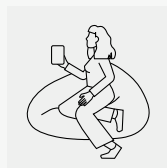
In accordance with the regulations, Panasonic guarantees its products against hidden defects. Moreover, Panasonic grants to the professional purchaser a commercial warranty, specific to the product families, subject to compliance of all the rules of installation and use of its products.

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
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Email: uk-aircon-tech@eu.panasonic.com

UK Office : +44 (0) 1707 378670

Panasonic Heating & Ventilation Air-Conditioning UK Ltd.
Registered Office: Ground Floor, Building 3, Albany Place,
Hyde Way, Welwyn Garden City, Hertfordshire AL7 3BT
Company Registration: 02371708



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.