

Panasonic



HYDRONICS RANGE

2025 / 2026

PANASONIC TOTAL SOLUTION

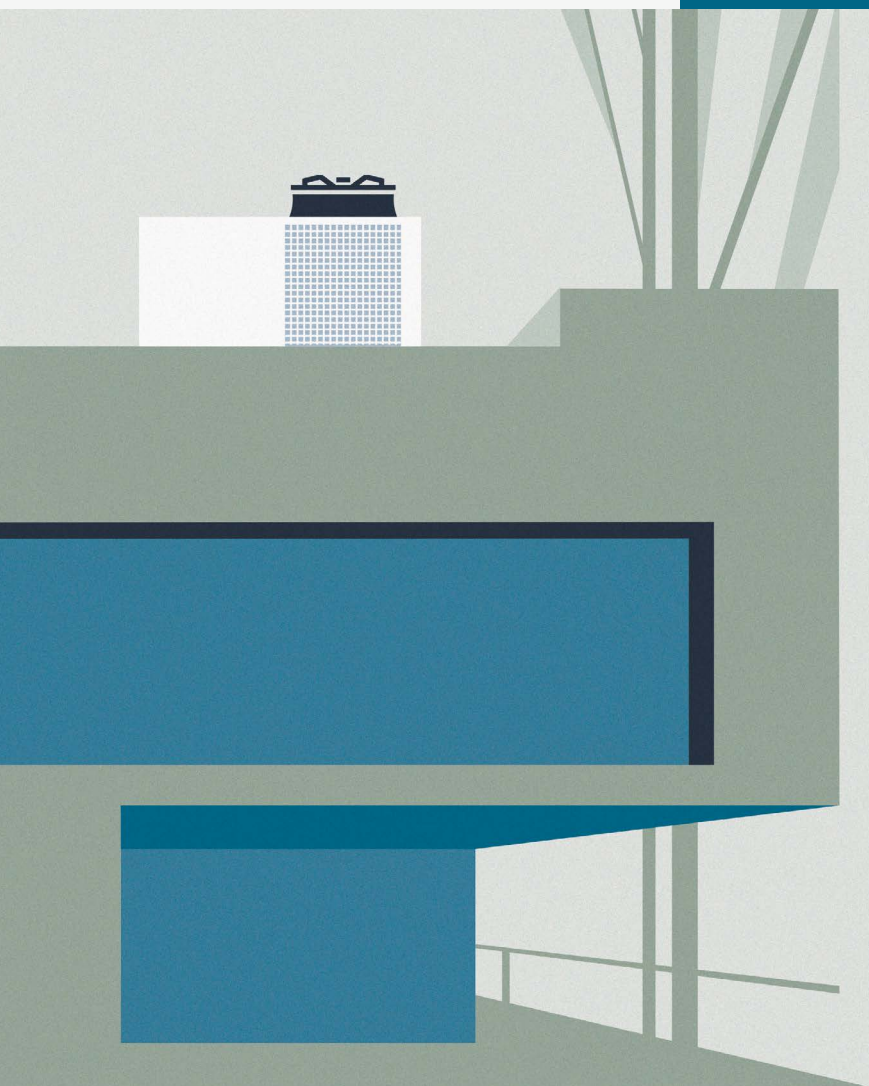


heating & cooling solutions



Chillers, heat pumps and water source heat pumps

These new Series provide a wide variety of HVAC system solutions, to meet all of your commercial and industrial needs.





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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 - ECOi-W

The ECOi-W hydronic systems are perfect for any type of building. The air cooled chiller variant of the system is also a fundamental part of many industrial processes.

3 Water source heat pumps - ECOi-LOOP

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

2 Water cooled chillers, heat pumps and condenserless units - ECOi-W

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



AC SELECT.

Use AC SELECT to choose and configure your hydronic solution.

Panasonic online selection tool offers an easy and quick solution to specify all the 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.

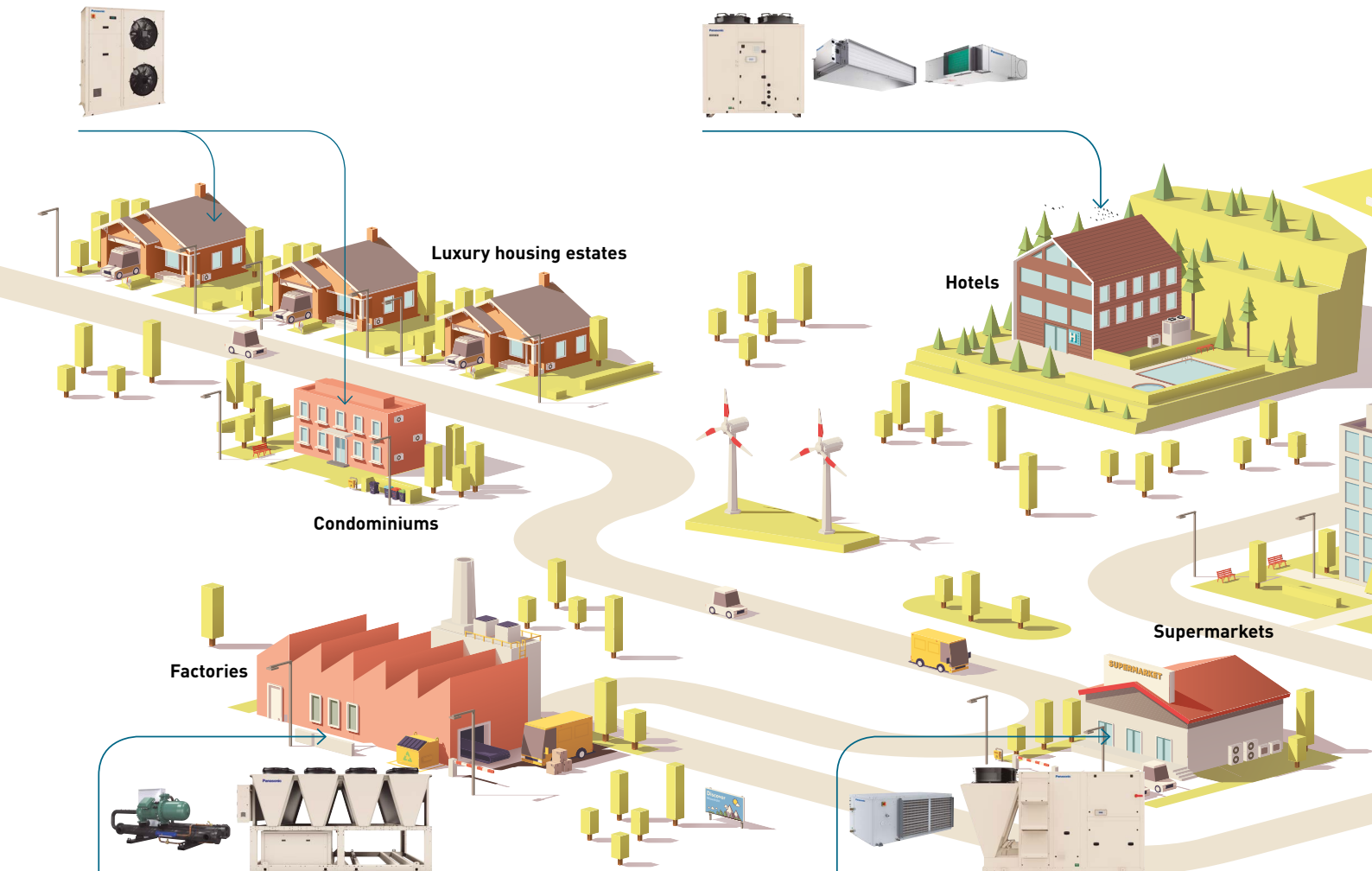
In residential applications a good indoor climate is important to ensure greater comfort and well-being. Our chillers and heat pump units with small capacities and DHW management are the ideal solutions.



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.

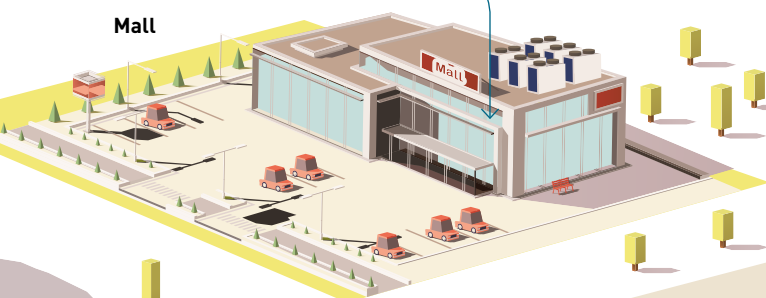
For supermarket applications, Panasonic has a wide range of solutions suitable to satisfy the required conditions: rooftops units can manage indoor ambient temperature and control the air quality, water source heat pumps have high efficiency and can allow independent zone management.

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.

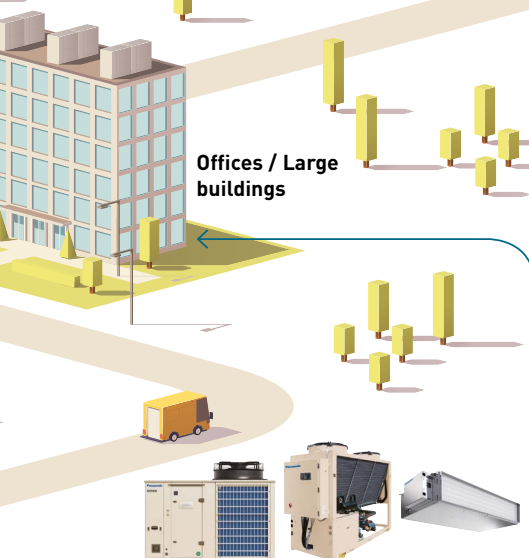


AIRPORT

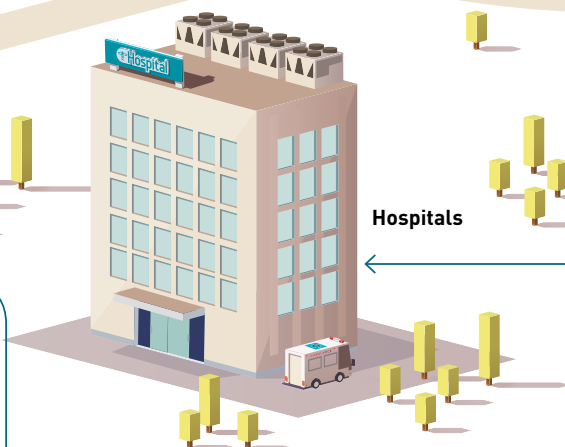


Airports

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.

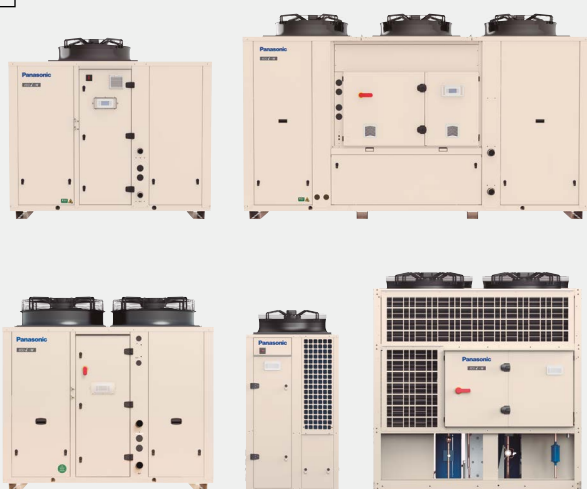
Hospitals require a high level of air quality and precise temperature control. Rooftop units are the best solutions due to their reliability and ability to provide fresh air through cooling, heating and ventilation of the building. The chiller and heat pump ranges help create an optimal indoor climate 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.



1



High quality chillers and heat pumps.

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

2



A wide variety of fan coils.

A wide variety of units to suit your needs, with flexible installation options. High efficiency and low noise operation allows for optimum comfort.

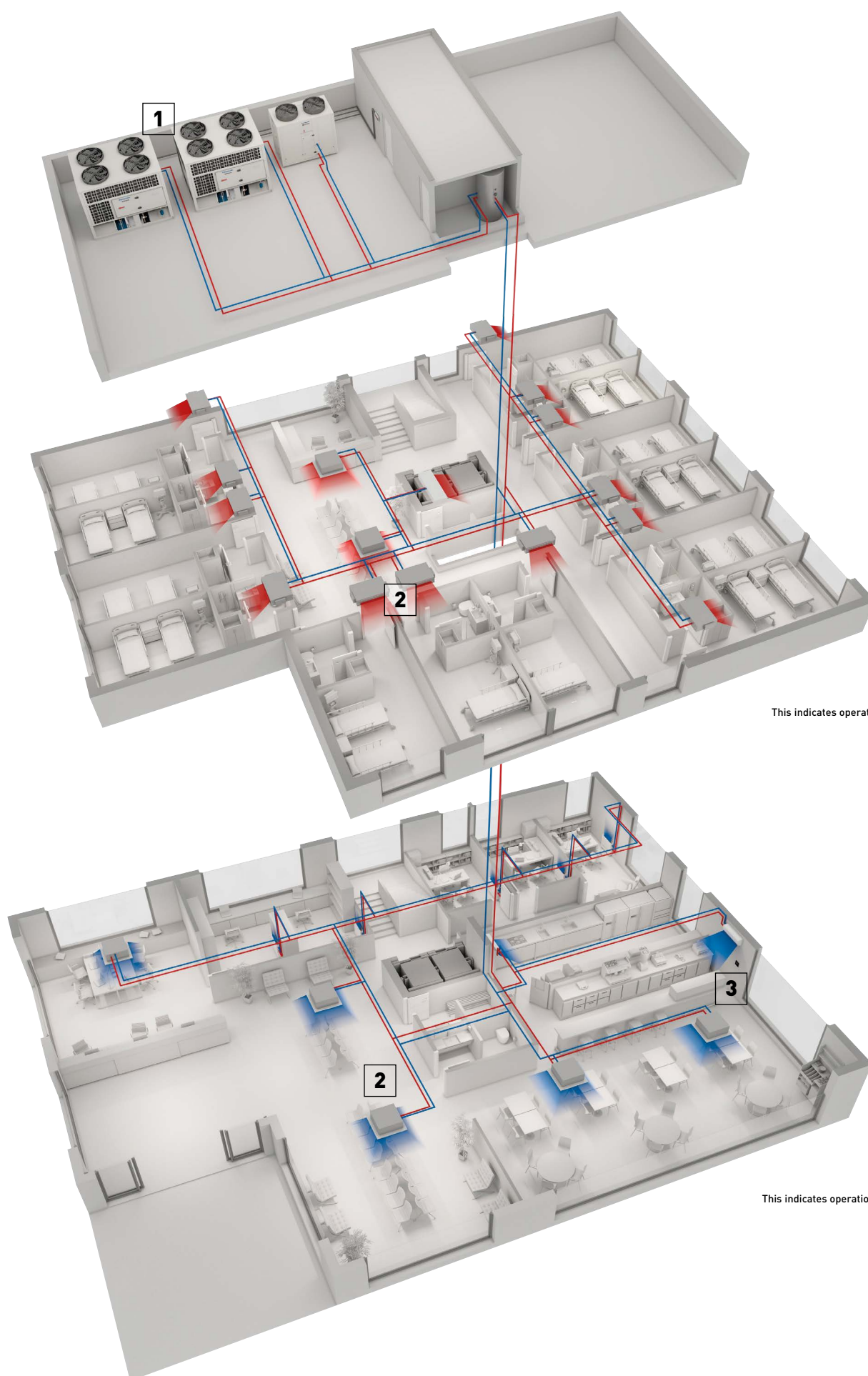
Operation in both heating and cooling is possible.

3



Intuitive controllers for fan coils.

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



Air cooled chillers, heat pumps and condensing units

Energy efficiency, high performance and comfort!

The ECOi-W 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.

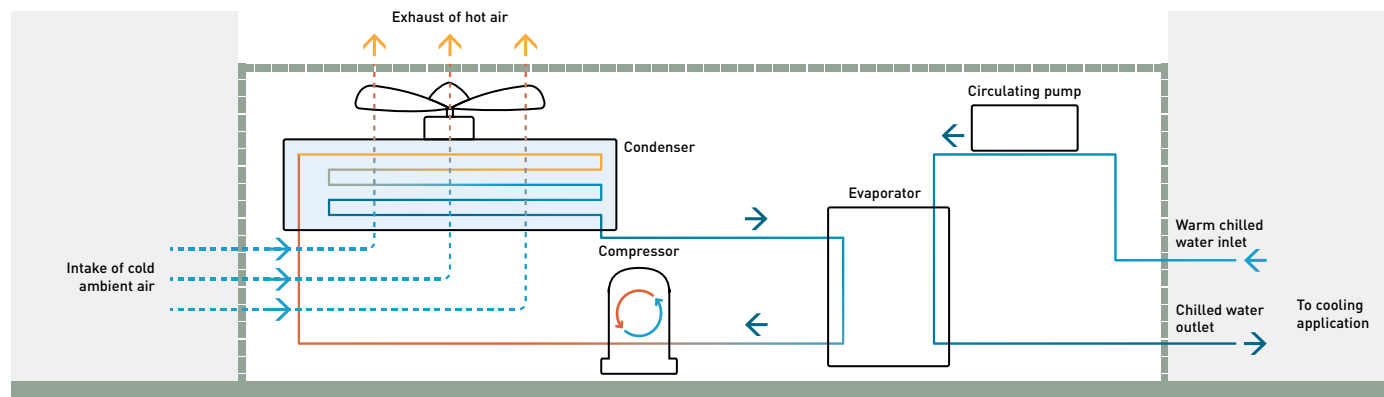


An air cooled chiller uses ambient air to cool and condense the hot refrigerant in the condenser.

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

Scroll compressors.

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



R290

R32

R410A

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.



R513A

In-house manufactured coils

100% quality certified by Panasonic is ensured by coil production in our factory. Hydrophilic aluminium (Bluefin) treatment is available as standard. Special Epoxy coating with strong protection against corrosion can be requested as option.

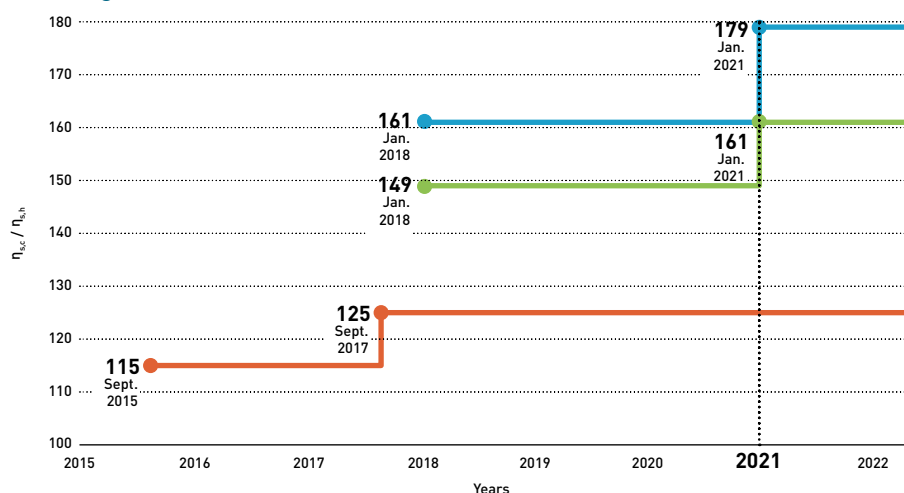


Microchannel coils

Significant reduction on refrigerant charge and operating weight.



Ecodesign



Air to water comfort chiller ¹⁾

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

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

Air to water heat pumps ²⁾

≤400 kW.
Minimum $\eta_{a,h}$ to be Ecodesign compliant.
COMMISSION REGULATION (EU) No 813/2013.

>400 kW.
Minimum $\eta_{a,h}$ 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. A revolutionary solution

Reversible heat pumps with high leaving water temperature.

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.



Natural refrigerant
R290 with GWP 0,02 ¹⁾.



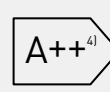
Reliable
quality.



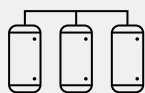
Scroll
compressors.

HIGH SEER **HIGH SCOP**
Max. 4,4 ²⁾ Max. 3,9 ³⁾

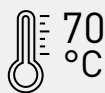
High seasonal
efficiency.



High energy
efficiency class.



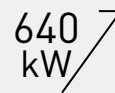
DHW
management.



Maximum 70 °C leaving
water temperature.



Quiet
operation.



Boost the capacity up
to 640 kW.

1) Based on the Sixth Assessment Report (AR6) adopted by the Intergovernmental Panel on Climate Change (IPCC). 2) Size 50. According EN 14825 and Following COMMISSION REGULATION (EU) 2016/2281. 3) Size 70. According EN 14825 and Following COMMISSION REGULATION (EU) No 813/2013. 4) Scale A+++ to D. According EN 14825 and Following COMMISSION REGULATION (EU) No 813/2013.

R290

NATURAL
REFRIGERANT

Air cooled heat pumps R290. The future of efficient commercial air to water heat pumps.



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 0,02!***

Make the choice to reach incredible efficiencies, extend the operating limits, and contribute to environmental preservation.

Based on the Sixth Assessment Report (AR6) adopted by the Intergovernmental Panel on Climate Change (IPCC).



50 kW



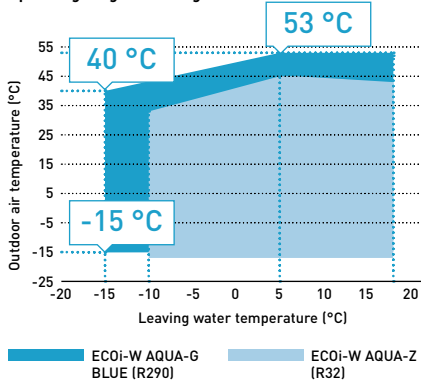
60 kW



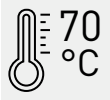
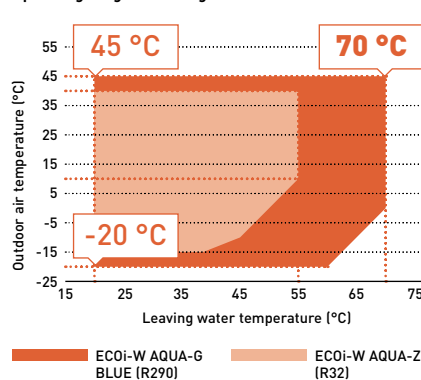
70 - 80 kW

Extended operating limits

Operating range in cooling mode.



Operating range in heating mode.



Cooling mode.

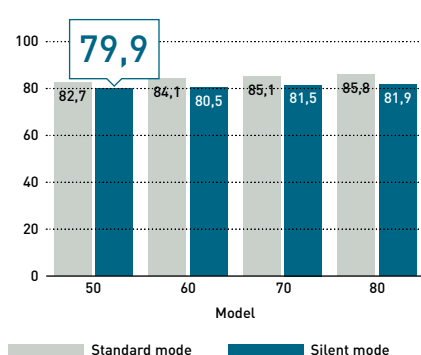
A water outlet temperature of -15 °C ensures optimal operation temperature for process equipment in factories.

Heating mode.

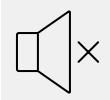
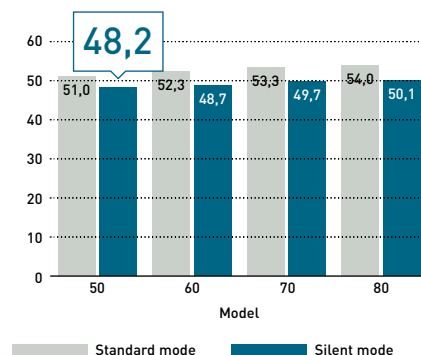
Ideal solution for Heating and Domestic Hot Water production. Reaching 70 °C from 0 °C outside air temperature.

Quiet operation. Discover a unique feature of ECOi-W AQUA-G BLUE

Sound power level (dB(A)).



Sound pressure level (dB(A)).



Silent mode.

Silent mode with an impressively low sound power level of only 79,9 dB(A), pressure level of only 48,2 dB(A). ECOi-W AQUA-G BLUE provides the perfect balance of efficiency and silent operation. Optional compressor jackets for size 50 and optional compressor box for sizes 60-70-80 are available to provide an additional level of noise reduction.

Quick selection guide - Air cooled chillers

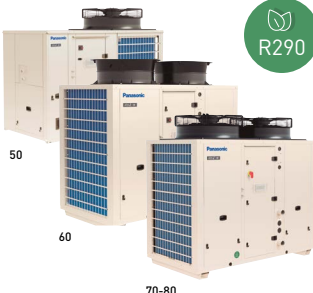
Page	Size	Cooling capacity (kW)	SEER	Sound power (dB(A))	Dimension L x H x W (mm)
P. 26	ECOi-W AQUA C · R410A				
	20	19,2	4,78	75	1000 x 1983 x 1000
	25	24,3	4,38	75	1000 x 1983 x 1000
	30	27,1	4,43	75	1000 x 1983 x 1000
	35	36,7	4,43	76	1000 x 1983 x 1000
P. 28	40	39,0	4,48	76	1000 x 1983 x 1000
	45	45,3	4,40	80	2180 x 1986 x 1160
	55	52,0	4,53	80	2180 x 1986 x 1160
	65	66,1	4,53	80	2180 x 1986 x 1160
	75	73,1	4,68	80	2180 x 1986 x 1160
P. 30	90	90,9	4,45	83	2180 x 2286 x 1160
	105	104,0	4,50	83	2180 x 2286 x 1160
	125	123,0	4,55	83	2180 x 2286 x 1160
	140	132,0	4,40	85	2856 x 2295 x 2210
	150	146,0	4,45	85	2856 x 2295 x 2210
P. 32	170	164,0	4,38	87	2856 x 2321 x 2210
	190	181,0	4,40	88	2856 x 2321 x 2210
	210	208,0	4,25	88	2856 x 2321 x 2210
	ECOi-W AQUA-Z C · R32				
	50	51,6	4,60	83	2180x x 1986 x 1160
P. 32	60	57,6	4,59	84	2180x x 1986 x 1160
	70	69,7	4,61	81	2180x x 1986 x 1160
	75	78,2	4,72	81	2180x x 1986 x 1160
	85	82,8	4,45	84	2180x x 2286 x 1160
	100	100,0	4,88	86	2180x x 2286 x 1160
P. 32	115	116,0	4,59	87	2180x x 2286 x 1160
	130	126,0	4,43	87	2180x x 2286 x 1160
	150	154,0	4,70	89	3789 x 2285 x 1151
	170	173,0	4,68	91	3789 x 2285 x 1151
P. 34	ECOi-W AQUA-Z DC C · R32				
	150	151,0	4,93	89,6	3795 x 2240 x 1152
	170	170,0	4,90	90,4	3795 x 2240 x 1152
	190	189,0	4,68	91,1	2676 x 2250 x 2211
	210	212,0	4,62	91,5	2676 x 2250 x 2211
P. 34	230	229,0	4,48	92,0	2676 x 2250 x 2211
	260	260,0	4,40	92,4	2676 x 2250 x 2211
	290	307,0	4,63	93,3	3801 x 2250 x 2211
	320	326,0	4,33	94,3	3801 x 2250 x 2211
	350	346,0	4,43	95,2	3801 x 2250 x 2211
P. 34	380	377,0	4,35	95,4	3801 x 2250 x 2211

* Dimensions without water tank.

Page	Size	Cooling capacity (kW)	SEER	Sound power (dB(A))	Dimension ¹⁾ L x H x W (mm)
P. 36	ECOi-W Aqv C · R410A				
	85	83,5	4,55	84	2555 x 2185 x 1095
	95	93,6	4,80	84	2555 x 2185 x 1095
	105	103,0	4,78	84	2555 x 2185 x 1095
	115	110,1	4,80	84	2555 x 2185 x 1095
	125	121,9	4,73	88	3155 x 2185 x 1095
P. 44	ECOi-W AQUA EVO C · R410A				
	230	231,0	4,25	92	3500 x 2500 x 2150
	260	263,0	4,25	93	3500 x 2500 x 2150
	280	284,0	4,23	93	3500 x 2500 x 2150
	300	310,0	4,18	94	4550 x 2500 x 2150
	330	331,0	4,20	95	4550 x 2500 x 2150
P. 48	360	362,0	4,10	95	4550 x 2500 x 2150
	400	390,4	4,48	92	4580 x 2500 x 2175
	450 S ²⁾	431,1	4,63	87	5620 x 2500 x 2175
	490 S ²⁾	470,2	4,58	87	6680 x 2500 x 2175
	530 S ²⁾	513,7	4,78	87	6680 x 2500 x 2175
	600	584,5	4,58	94	7760 x 2500 x 2175
	670	653,2	4,59	94	7760 x 2500 x 2175
	750 S ²⁾	727,7	4,73	89	8900 x 2500 x 2175
	800 S ²⁾	775,4	4,70	89	8900 x 2500 x 2175
	ECOi-W SW-N EVO C · R513A				
P. 50	380	365,7	4,53	97	4660 x 2510 x 2192
	440	443,0	4,64	98	5712 x 2510 x 2192
	510	500,2	4,65	100	5712 x 2510 x 2192
	590	565,8	4,80	100	6764 x 2510 x 2192
	660	643,5	4,66	100	7816 x 2510 x 2192
	730	704,3	4,56	101	7816 x 2510 x 2192
	810	778,1	4,62	101	8868 x 2510 x 2192
	900	896,9	4,56	102	9920 x 2510 x 2192
	980	983,5	4,60	102	10972 x 2510 x 2192
	1060	1047,4	4,87	103	12024 x 2510 x 2192
	1160	1154,0	4,86	103	13076 x 2510 x 2192
	1260	1240,5	4,85	103	13076 x 2510 x 2192

1) Dimensions without water tank. 2) S version.

Quick selection guide - Air cooled heat pumps

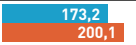
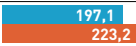
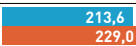
Page	Size	Cooling and heating capacity (kW)	SEER / SCOP	Sound power (dB(A))	Dimension L x H x W (mm)
P. 22	ECOi-W AQUA-G BLUE H · R290 				
	50	48,2 49,2	4,40 / 3,70	83	2215 x 1730 x 1032
	60	56,1 61,1	4,30 / 3,70	84	2180 x 2011 x 1160
	70	64,9 73,5	4,30 / 3,90	85	2180 x 2030 x 1160
P. 24	ECOi-W AQUA EVO H · R410A 				
	20	21,0 20,4	3,30 / 3,75	74	1477 x 1615 x 539
	30	28,0 26,1	3,98 / 3,68	75	1477 x 1615 x 539
	40	35,8 37,3	4,25 / 3,50	76	1000 x 1983 x 1000
P. 26	ECOi-W AQUA H · R410A 				
	20	18,7 19,5	4,68 / 3,50	75	1000 x 1983 x 1000
	25	23,7 26,9	4,31 / 3,38	75	1000 x 1983 x 1000
	30	26,4 29,7	4,28 / 3,45	75	1000 x 1983 x 1000
P. 28					
	35	35,8 37,3	4,25 / 3,50	76	1000 x 1983 x 1000
	40	38,1 41,6	4,33 / 3,50	76	1000 x 1983 x 1000
	45	44,3 48,5	4,20 / 3,38	80	2180 x 1986 x 1160
P. 30					
	55	50,9 58,2	4,41 / 3,38	80	2180 x 1986 x 1160
	65	64,1 67,3	4,51 / 3,55	80	2180 x 1986 x 1160
	75	71,0 76,0	4,63 / 3,53	80	2180 x 1986 x 1160
P. 30					
	90	88,7 88,2	4,40 / 3,40	83	2180 x 2286 x 1160
	105	101,0 101,0	4,44 / 3,43	83	2180 x 2286 x 1160
	125	119,0 119,0	4,49 / 3,43	83	2180 x 2286 x 1160
P. 30					
	140	128,0 144,0	4,39 / 3,30	85	2856 x 2295 x 2210
	150	142,0 154,0	4,36 / 3,33	85	2856 x 2295 x 2210
	170	164,0 170,0	4,31 / 3,30	87	2856 x 2321 x 2210
P. 30	190	178,0 195,0	4,23 / 3,28	88	2856 x 2321 x 2210
	210	208,0 218,0	4,28 / 3,23	88	2856 x 2321 x 2210

* Dimensions without water tank.

Page	Size	Cooling and heating capacity (kW)	SEER / SCOP	Sound power (dB(A))	Dimension LxHxW (mm)
P. 32	R32	50	4,46 / 3,63	83	2180 x 1986 x 1160
		60	4,42 / 3,51	84	2180 x 1986 x 1160
		70	4,51 / 3,49	81	2180 x 1986 x 1160
		75	4,61 / 3,56	81	2180 x 1986 x 1160
		85	4,33 / 3,76	84	2180 x 2286 x 1160
		100	4,77 / 3,56	86	2180 x 2286 x 1160
		115	4,44 / 3,77	87	2180 x 2286 x 1160
		130	4,23 / 3,81	87	2180 x 2286 x 1160
		150	4,59 / 3,78	89	3789 x 2285 x 1151
		170	4,49 / 3,70	91	3789 x 2285 x 1151
P. 34	R32	150	4,75 / 3,83	89,6	3795 x 2240 x 1152
		170	4,71 / 3,90	90,4	3795 x 2240 x 1152
		190	4,45 / 3,46	91,1	2678 x 2250 x 2211
		210	4,39 / 3,44	91,5	2678 x 2250 x 2211
	R32	220**	5,03 / 3,86	91,3	2676 x 2300 x 2211
		230	4,34 / 3,64	92,0	2678 x 2250 x 2211
		260	4,21 / 3,52	92,4	2678 x 2250 x 2211
		270**	5,01 / 3,82	92,8	3801 x 2300 x 2211
		290	4,34 / 3,51	93,3	3801 x 2250 x 2211
		300**	5,01 / 3,92	93,1	3801 x 2300 x 2211
		320	4,33 / 3,50	94,3	3801 x 2250 x 2211
		350	4,40 / 3,50	95,2	3801 x 2250 x 2211
		380	4,34 / 3,66	95,4	3801 x 2250 x 2211
		85	4,25 / 3,61	84	2555 x 2185 x 1095
		95	4,68 / 3,64	84	2555 x 2185 x 1095
		105	4,63 / 3,78	84	2555 x 2185 x 1095
		115	4,17 / 3,77	84	2555 x 2185 x 1095
P. 36	R32	125	4,33 / 3,47	88	3155 x 2185 x 1095
		140	4,28 / 3,54	88	3155 x 2185 x 1095

* Dimensions without water tank. ** Only EC fans version.

Quick selection guide - Air cooled heat pumps

Page	Size	Cooling and heating capacity (kW)	SEER / SCOP	Sound power (dB(A))	Dimension ¹⁾ L x H x W (mm)
P. 40	ECOi-W VL H · R410A				
	704		3,63 / 3,41	93	4300 x 2300 x 1100
	804		3,55 / 3,42	93	4300 x 2300 x 1100
	904		3,35 / 3,28	94	4300 x 2300 x 1100
	1004		3,50 / 3,39	94	4300 x 2300 x 1100
	1104		3,53 / 3,30	95	4300 x 2300 x 1100
P. 44	ECOi-W AQUA EVO H · R410A				
	230		4,13 / 3,46	92	3500 x 2500 x 2150
	260		4,05 / 3,48	93	3500 x 2500 x 2150
	280		4,10 / 3,44	93	3500 x 2500 x 2150
	300		3,83 / 3,51	94	4550 x 2500 x 2150
	330		3,80 / 3,44	95	4550 x 2500 x 2150
P. 48	360		3,93 / 3,48	95	4550 x 2500 x 2150
	400		4,65 / 3,46	92	5620 x 2500 x 2175
	450		4,53 / 3,47	93	5620 x 2500 x 2175
	490		4,70 / 3,37	93	6680 x 2500 x 2175
	530		4,55 / 3,38	94	6680 x 2500 x 2175
	580 S ²⁾		4,60 / —	80	7760 x 2500 x 2175
	620 S ²⁾		4,60 / —	88	8800 x 2500 x 2175
	670 S ²⁾		4,55 / —	88	8800 x 2500 x 2175
	750 S ²⁾		4,55 / —	89	9950 x 2500 x 2175
	800 S ²⁾		4,58 / —	89	9950 x 2500 x 2175

1) Dimensions without water tank. 2) S version.

Quick selection guide - Air cooled condensing units

Page	Size	Cooling capacity (kW)	EER	Sound power (dB(A))	Dimension L x H x W (mm)
P. 26	ECOi-W AQUA E · R410A				
	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. 28	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. 36	ECOi-W AQV E · R410A				
	85	92,1	3,36	84	2555 x 2185 x 1095
	95	103,2	3,29	84	2555 x 2185 x 1095
	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
P. 40	140	151,0	3,23	88	3155 x 2185 x 1095
	ECOi-W VL E · R410A				
	704	199,0	2,90	93	4300 x 2300 x 1100
	804	224,0	3,00	93	4300 x 2300 x 1100
	904	258,0	2,98	94	4300 x 2300 x 1100
	1004	283,0	3,12	94	4300 x 2300 x 1100
	1104	315,0	2,98	95	4300 x 2300 x 1100
P. 44	1204	347,0	2,90	95	4300 x 2300 x 1100
	ECOi-W AQUA EVO E · R410A				
	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

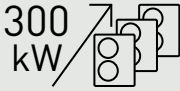
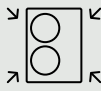
* Dimensions without water tank.



Big Aquarea T-CAP M Series, the ideal solution for centralised heating and DHW installations

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

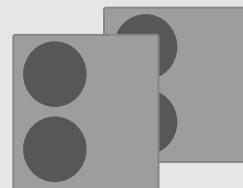
The solution is suitable for both new buildings and retrofits, as it offers a more sustainable alternative to traditional fossil fuel heating systems and it can be easily integrated with existing water system such as fan coils, floor heating or domestic hot water tanks.

					
Up to 300 kW in cascade.	Compact solution with small footprint.	Keeping capacity at 55 °C water outlet down to -15 °C outdoor.	Quiet operation.	Panasonic Inverter compressor.	DHW at 65 °C with compressor only.

- Units from 20 to 30 kW, up to 300 kW in cascade
- Easy replacement of other heating sources
- Flexible control options: remote control only or control module for enhanced functionality
- Seamless Modbus integration
- Designed to blend with architecture and environment

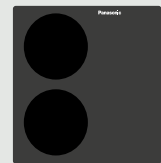
Maintained capacity.
Time-saving installation.
Cost-saving.
Space-saving.

2x 20 kW
heat pump



Conventional cascade system

1x 30 kW
Big Aquarea T-CAP



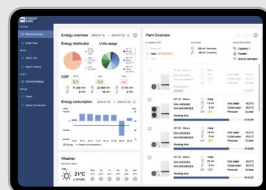
New Panasonic Aquarea T-CAP M Series

For 30 kW demand at 55 °C water outlet and -7 °C outdoor temperature.

**PS P-SMART
EDGE**

P-Smart Edge.

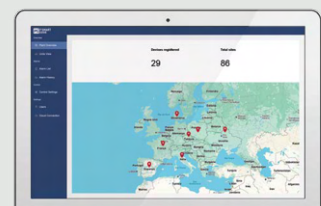
Control and monitoring online solution for Aquarea Cascade Edge systems wherever you are. In a simple click, configure and receive status updates of all your units.



**PS P-Smart
Nexus**

P-Smart Nexus.

Smart multi-site online control which allows a remote global supervision of all your sites.





Aquarea T-CAP Hydraulic

Big Aquarea T-CAP Hydraulic M Series Three phase - R290

Water outlet temperature up to 75 °C.

Maintained capacity at 55 °C down to -15 °C.

Wi-Fi adapter included for smart control via Panasonic Comfort Cloud App.

Operation range down to -25 °C in heating.



Included



Combination table			Outdoor unit		
			Heating capacity		
			Three phase		
			20,0 kW	25,0 kW	30,0 kW
			WH-WXG20ME8	WH-WXG25ME8	WH-WXG30ME8
Control module	3ph	WH-CME8L	✓	✓	✓
Remote controller with Wi-Fi adapter	—	CZ-RTW2TAW1C	✓	✓	✓

Outdoor unit	Heating capacity / COP		Cooling capacity / EER	SCOP	Energy class (heating)	Piping information		Sound power ¹⁾	Dimension	Weight	
	A +7 °C, W 35 °C	A +7 °C, W 55 °C	A 35 °C, W 18 °C at Comfort mode	W 35 °C / W 55 °C	W 35 °C / W 55 °C	Pipe length range (std / max)	Elevation difference (in / out)	Heat	H x W x D		
	kW/COP	kW/COP	kW/EER		A+++ to D	m	m	dB(A)	mm	kg	
3ph	WH-WXG20ME8	20,00 / 4,80	20,00 / 3,18	20,00 / 4,79	4,36 / 3,59	A++ / A++	— / —	—	56	1 645 x 1 500 x 460	240
	WH-WXG25ME8	25,00 / 4,50	25,00 / 3,00	25,00 / 4,47	4,25 / 3,57	A++ / A++	— / —	—	59	1 645 x 1 500 x 460	240
	WH-WXG30ME8	30,00 / 4,40	30,00 / 3,00	30,00 / 4,10	3,95 / 3,46	A++ / A++	— / —	—	61	1 645 x 1 500 x 460	240

Control module		Field supply electrical backup heater	Recommended fuse, supply ²⁾	Recommended minimum cable size, supply ²⁾	Connecting cable to the outdoor unit size	Dimension	Net weight
		kW	A	mm ²	mm ²	H x W x D	
						mm	kg
3ph	WH-CME8L	Up to 18 kW	20 (≤9kW) 40 (9kW < ≤18kW)	5x2,5 (≤12kW) 5x4,0 (12kW < ≤15kW) 5x6,0 (15kW < ≤18kW)	2x0,75	450 x 450 x 116	7

1) Sound power level in accordance to EN 12102 under conditions of the EN 14825 (part load). 2) Check local regulations. * Available in December 2024. Tentative data. ** EER and COP calculation is based in accordance to EN 14511. *** This product is designed to comply with the European drinking water standard (EU) 2020/2184. The lifespan of the product is not guaranteed in the case of the use of groundwater, such as spring water or well water, the use of tap water when salt or other impurities are contained, nor in areas of acidic water quality. Maintenance and warranty costs related to these cases are the customer's responsibility.



Hi-durability outdoor units

Panasonic Air to Water outdoor unit coils have been treated for high resistance to corrosion to ensure long-lasting performance. No need for expensive and time consuming third part coatings. Tests have been completed under the norm ASTM B117 for 1000 hours.

Note: Selecting this unit does not completely eliminate the possibility of corrosion developing. For details concerning unit installation and maintenance, please consult an authorised dealer.



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
- 2 acoustic options: STD (standard) and S (super low noise)

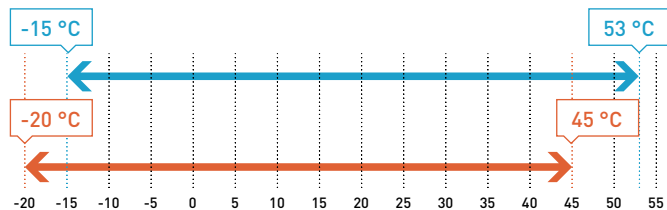
Advantages

- A super eco-friendly unit - employs natural refrigerant R290 with GWP 0,02
- Very high performance and improved energy efficiencies
- Smart energy consumption
- Expanded operating limit
- Domestic Hot Water management
- Compact chassis
- Very quiet operation
- Cascade controller available for multi system operation
- SG Ready
- Very low refrigerant charge
- Reliable safety measurements

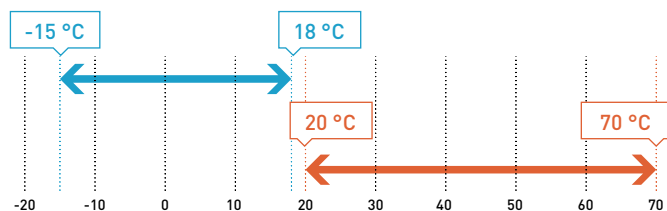
Operating limits

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

Ambient temperature.



Leaving water temperature.



Equipment

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

AC SELECT.

Smart and user-friendly selection tool. Configure your air conditioning solution at required conditions:
<https://acselect.panasonic.eu/>





Technical performance

Size		50	60	70	80
Power supply	Voltage	V	400	400	400
	Phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	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⁾		4,37	4,30	4,31	4,21
$\eta_{s,c}$ 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⁾		3,67	3,75	3,87	3,84
$\eta_{s,h}$ ⁴⁾		143,7	146,8	151,8	150,5
Energy efficiency class (SCOP) ⁴⁾	A+++ to D	A+	A+	A++	A++
SCOP _{MT} ⁴⁾		3,11	3,14	3,26	3,22
$\eta_{s,hMT}$ ⁴⁾		121,4	122,7	127,3	126,0
Energy efficiency class (SCOP _{MT}) ⁴⁾	A+++ to D	A+	A+	A++	A++
Sound power (STD / S)	dB(A)	82,7 / 79,9	84,1 / 80,5	85,1 / 81,5	85,8 / 81,9
Sound pressure at 10 m (STD / S) ⁵⁾	dB(A)	51,0 / 48,2	52,3 / 48,7	53,3 / 49,7	54,0 / 50,1

Physical features

ECOi-W AQUA-G BLUE 50-80 H EC fan - heat pump		50	60	70	80
Dimension	Height	mm	1730	2011	2030
	Length w/o / w water tank	mm	2215 / 2915 ⁴⁾	2180 / 2680	2180 / 2680
	Width	mm	1032	1160	1160
Operating weight	kg	538	603	628	669
Refrigerant and compressors					
Number of refrigerant circuits		1	1	1	1
Refrigerant (R290)	kg	4,50	4,80	5,30	6,80
GWP ⁷⁾	CO ₂ eq.	0,02	0,02	0,02	0,02
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 EN 14511-2013: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 2) According EN 14825 and following COMMISSION REGULATION (EU) 2016/2281.

3) According EN 14511-2013: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 4) According to EN 14825 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. 7) Based on the Sixth Assessment Report (AR6) adopted by the Intergovernmental Panel on Climate Change (IPCC).

* w/o: without, w: with.

Accessories and options

Anti-vibration rubber mount / spring dampers
Refrigerant gauges HP/LP
Shut off valves
Soft starter

Accessories and options

Electrical heater for the water tank
Variable or fixed speed pumps
Water tank 200 L for sizes 50
Water tank 300 L for sizes 60-70-80

Accessories supplied loose

P-375281 SRC - mini BMS controller
P-586595_G Cascade controller
P-372061_G Remote keyboard panel
P-372615_G Kit 4G modem
SVC-HYD-COMM-CLD1 1-year pre-paid Cloud access

Accessories supplied loose

SVC-HYD-COMM-CLD3 3-year pre-paid Cloud access
P-3721027 3 way valve and probe for DHW management for size 50
P-3721028 3 way valve and probe for DHW management for size 60-80
P-3721050 Kit temperature probe for deported tank





ECOi-W AQUA EVO H · R410A

Air cooled heat pumps Inverter.

Cooling capacity: 20,0 to 35,9 kW.

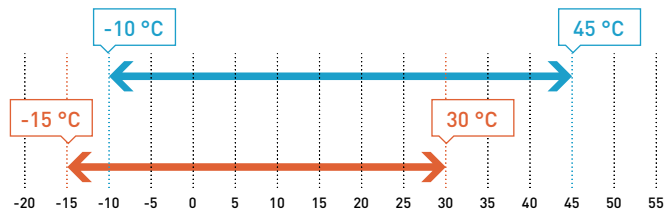
Heating capacity: 20,4 to 34,0 kW.



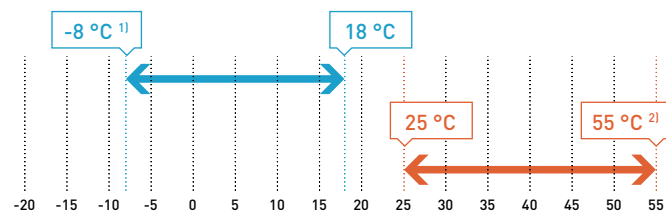
Operating limits

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.

The range at a glance

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

Advantages

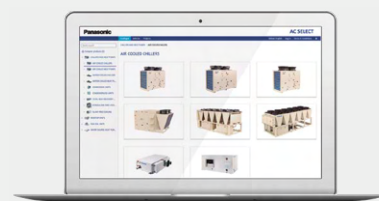
- Wide load variation capability:
 - Cooling operation down to 30% and up to 140% of nominal capacity
 - Heating operation down to 40% and up to 130% of nominal capacity
- Unit optimization in heating mode for both fan coil and floor applications
- Wide operating limits in heating mode
- Domestic Hot 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

AC SELECT.

Smart and user-friendly selection tool. Configure your air conditioning solution at required conditions:
<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+++ to D	A+	A+
$\eta_{s,h}$ ^{6) 7)}			147	144
SCOP ^{6) 8)}			3,00	2,95
Energy efficiency class ^{6) 8)}		A+++ to D	A+	A+
$\eta_{s,h}$ ^{6) 8)}			117	115
Nominal water flow (in the evaporator)		m ³ /h	3,64	5,92
Sound power ⁹⁾		dB(A)	74	75
Sound pressure at 10 m ¹⁰⁾		dB(A)	43	44

Physical features

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

1) According EN 14511-2013: chilled water inlet/outlet temperature: 23/18 °C, outdoor ambient temperature 35 °C. 2) According EN 14511-2013: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 3) According to EN 14825 standard. 4) According EN 14511-2013: warm water inlet/outlet temperature: 30/35 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 5) According EN 14511-2013: 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 EN 14825 standard - low temperature application (35 °C). 8) According to EN 14825 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

Accessories and options

Coils treatments

Accessories supplied loose

P-373705 Water temperature sensor for second set-point zone
P-347941 Remote ON / OFF control
P-364735 Remote keyboard panel
P-362577 Flow switch
P-473465 Pressure switch

Accessories supplied loose

P-362384 Valves in - out
P-348144 3WV DHW - 3 way valve for DHW production - ON / OFF - DN 20
P-375890 3WV SSP - 3 way valve for second set-point zone - 0-10 V - DN 25
P-375891 3WV SSP - 3 way valve for second set-point zone - 0-10 V - DN 32





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

Advantages

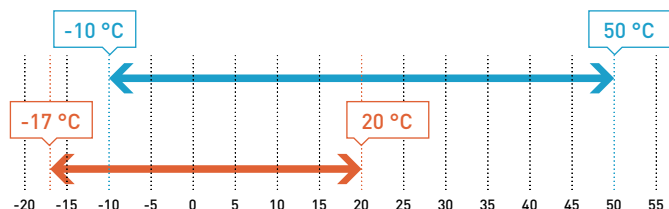
- Very high performance
- Low noise units
- Wide operating limits
- Easy maintenance: great accessibility to the internal components
- Low footprint
- Smart defrost technology: 1 defrost every 130 minutes for a constant LWT even at very low OAT (H type)
- Optimised for partial load operation
- 100% factory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

Operating limits

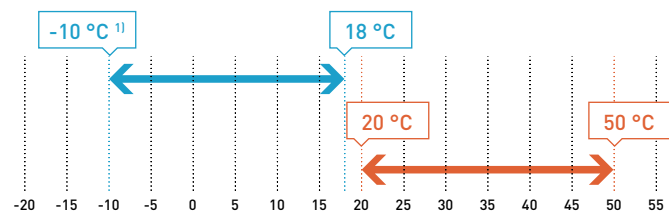
To be confirmed with AC SELECT:

<https://acselect.panasonic.eu/>

Ambient temperature (chiller, heat pump and condensing unit).



Leaving water temperature (chiller 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 selection tool. Configure your air conditioning solution at required conditions:

<https://acselect.panasonic.eu/>





Technical performance

Power supply	Voltage	V	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50
Size			20	25	30	35	40
ECOi-W AQUA 20-40 C - chiller			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
η_{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
η_{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+++ to D	A+	A+	A+	A+
η_{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 - chiller / 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
Water connections							
Type of water connections (evaporator)			Male gas threaded BSPP ISO 228	Male gas threaded BSPP ISO 228	Male gas threaded BSPP ISO 228	Male gas threaded BSPP ISO 228	Male gas threaded BSPP ISO 228
Water inlet/outlet diameter			Inch	1 ½	1 ½	1 ½	1 ½
ECOi-W AQUA 25-40 E - condensing unit			—	25	30	35	40
Dimension			H x W x L	mm	1983 x 1000 x 1000	1983 x 1000 x 1000	1983 x 1000 x 1000
Operating weight			kg	—	260	270	280
Refrigerant connections							
Liquid / suction line			Inch	— / —	5/8 / 1 ½	5/8 / 1 ½	5/8 / 1 ½

1) According EN 14511-2013: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 2) According EN 14825. 3) ErP compliant: following COMMISSION REGULATION (EU) 2016/2281. 4) Sound pressures refer to ISO 3744 standard, parallelepiped shape. 5) According EN 14511-2013: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 6) According EN 14511-2013: 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 EN 14511-2013 standard.

* w/o: without, w: with.

Accessories and options

Anti-vibration rubber mount / spring dampers
BACnet IP or BACnet MSTP
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 (IH type only)
Shut off valves
Soft starter

Accessories and options

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.

Accessories supplied loose

P-375281	SRC - mini BMS controller
P-372061	Remote keyboard panel
P-372615	Kit 4G modem

Accessories supplied loose

SVC-HYD-COMM-CLD1	1-year pre-paid Cloud access
SVC-HYD-COMM-CLD3	3-year pre-paid Cloud access
P-378016	Kit anti-vibration mount rubber





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.

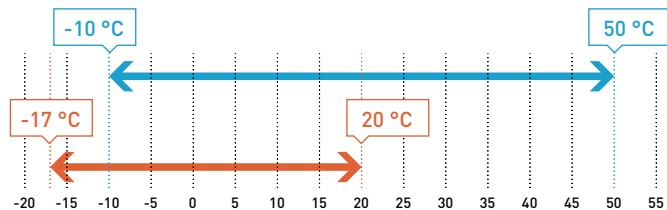
Heating capacity: 48,5 to 119,1 kW.



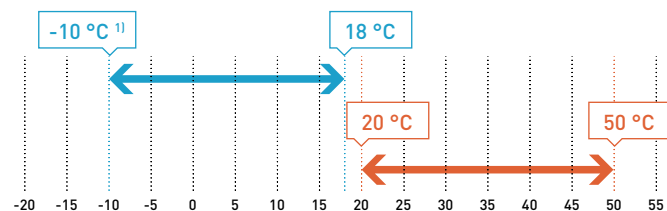
Operating limits

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

Ambient temperature (chiller, heat pump and condensing unit).



Leaving water temperature (chiller and heat pump).



1) With glycol, 5 °C without glycol.

The range at a glance

- 3 versions: C (chiller), 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

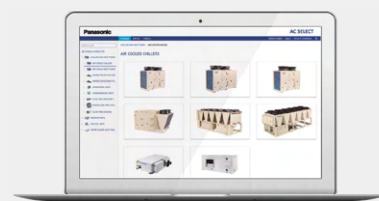
- Very high performance
- Low noise units
- Wide operating limits
- Easy maintenance: great accessibility to the internal components
- Low footprint
- Smart defrost technology: 1 defrost every 130 minutes for a constant LWT even at very low OAT (H type)
- Optimised for partial load operation
- 100% factory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

Equipment

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

AC SELECT.

Smart and user-friendly selection tool. Configure your air conditioning solution at required conditions:
<https://acselect.panasonic.eu/>





Technical performance

	Voltage	V	400	400	400	400	400	400	400
Power supply	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50	50
Size			45	55	65	75	90	105	125
ECOi-W AQUA 45-125 C - chiller			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+++ to D	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 - chiller / 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
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
ECOi-W AQUA 45-125 E - condensing unit			45	55	65	75	90	105	125
Operating weight			kg	490	490	560	560	740	850
Dimension			HxWxL	mm	1986x1160x2180	1986x1160x2180	1986x1160x2180	2286x1160x2180	2286x1160x2180
Refrigerant connections									
Liquid / suction line			Inch	5/8 / 1 5/8	5/8 / 1 5/8	5/8 / 1 5/8	5/8 / 1 5/8	7/8 / 1 5/8	7/8 / 1 5/8

1) According EN 14511-2013: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 2) According EN 14825. 3) ErP compliant: following COMMISSION REGULATION (EU) 2016/2281. 4) Sound pressures refer to ISO 3744 standard, parallelepiped shape. 5) According EN 14511-2013: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 6) According EN 14511-2013: 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 EN 14511-2013 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

Accessories and options

Shut off valves
Soft starter
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.

Accessories supplied loose

P-375281	SRC - mini BMS controller
P-372061	Remote keyboard panel
P-372615	Kit 4G modem

Accessories supplied loose

SVC-HYD-COMM-CLD1	1-year pre-paid Cloud access
SVC-HYD-COMM-CLD3	3-year pre-paid Cloud access





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 (chiller) and H (heat pump)
- 5 sizes
- SEER up to 4,40
- SCOP up to 3,36

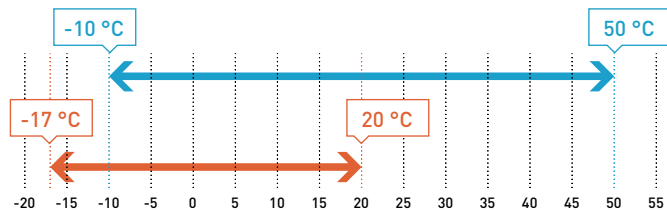
Advantages

- 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

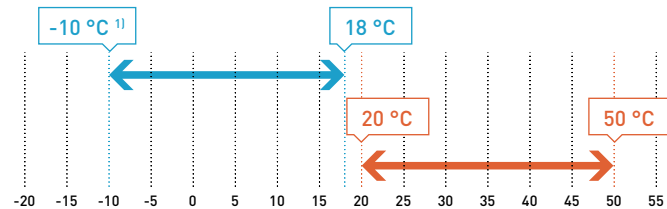
Operating limits

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

Ambient temperature (chiller and heat pump).



Leaving water temperature (chiller and heat pump).



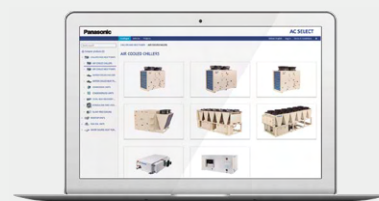
1) With glycol, 5 °C without glycol.

Equipment

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

AC SELECT.

Smart and user-friendly selection tool. Configure your air conditioning solution at required conditions:
<https://acselect.panasonic.eu/>





Technical performance

Power supply	Voltage	V	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50
Size			140	150	170	190	210
ECOi-W AQUA 140-210 C - chiller			P-AQAE0140CA	P-AQAE0150CA	P-AQAE0170CA	P-AQAE0190CA	P-AQAE0210CA
Cooling capacity ¹⁾	kW		132	146	164	181	208
Input power ¹⁾	kW		43,1	47,6	54,8	61,1	69,8
EER ¹⁾			3,06	3,07	2,99	2,96	2,98
SEER ^{2) 3)}			4,40	4,45	4,38	4,40	4,25
$\eta_{s,c}$ ^{2) 3)}			173	175	172	173	167
Nominal water flow (in the evaporator)	m³/h		22,7	25,1	28,2	31,1	35,8
Sound power (STD fan)	dB(A)		85	85	87	88	88
Sound pressure at 10 m (STD fan) ⁴⁾	dB(A)		53,4	53,4	55,0	56,1	56,1
ECOi-W AQUA 140-210 H - heat pump			P-AQAE0140HA	P-AQAE0150HA	P-AQAE0170HA	P-AQAE0190HA	P-AQAE0210HA
Cooling capacity ¹⁾	kW		128	142	164	178	208
Input power ¹⁾	kW		43,2	47,7	54,7	61,3	69,7
EER ¹⁾			2,97	2,98	3,00	2,90	2,98
SEER ²⁾			4,39	4,36	4,31	4,23	4,28
$\eta_{s,c}$ ²⁾			173	171	169	166	168
Nominal water flow (in the evaporator)	m³/h		21,6	23,7	25,9	30,2	33,7
Heating capacity ⁵⁾	kW		144	154	170	195	218
Input power ⁵⁾	kW		45,8	50,2	55,4	67,5	78,3
COP ⁵⁾			3,14	3,06	3,07	2,89	2,78
COP ⁶⁾			3,84	3,82	3,81	3,82	3,82
SCOP ^{2) 7)}			3,30	3,33	3,30	3,28	3,23
$\eta_{s,h}$ ^{2) 7)}			129	130	129	128	126
Nominal water flow (in the evaporator)	m³/h		24,8	26,5	29,6	33,9	37,9
Sound power	dB(A)		85	85	87	88	88
Sound pressure at 10 m (STD fan) ⁴⁾	dB(A)		53,4	53,4	55	56,1	56,1

Physical features

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

1) According EN 14511-2013: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 2) According EN 14825. 3) ErP compliant: following COMMISSION REGULATION (EU) 2016/2281. 4) Sound pressures refer to ISO 3744 standard, parallelepiped shape. 5) According EN 14511-2013: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 6) According EN 14511-2013: 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 (upon request)
Fan speed control
Finned coil blygold treatment (upon request) and epoxy

Accessories and options

Hydraulic gauges
Modbus TCP/IP
Outdoor coil protection grid
Nordic pack (H type only)
Refrigerant gauges HP/LP
Shut off valves

Accessories and options

Soft starter
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.

Accessories supplied loose

P-375281 SRC - mini BMS controller
P-372061 Remote keyboard panel
P-372615 Kit 4G modem

Accessories supplied loose

SVC-HYD-COMM-CLD1 1-year pre-paid Cloud access
SVC-HYD-COMM-CLD3 3-year pre-paid Cloud access
P-372614 Victaulic® to threaded pipe connection





ECOi-W AQUA-Z 50-170 C/H · R32

Air cooled chillers and heat pumps.

Cooling capacity: 51,6 to 173,0 kW.

Heating capacity: 51,7 to 180,0 kW.

R32
REFRIGERANT



The range at a glance

- 2 versions: C (chiller) and H (heat pump)
- 10 sizes
- SEER up to 4,88 (STD AC) / 5,31 (STD EC)
- SCOP up to 3,72 (STD AC) / 4,10 (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

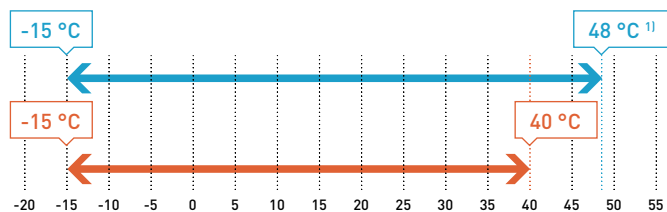
- Low GWP R32 refrigerant (GWP= 675)
- Very high efficiency
- Wide operating limits
- Low footprint: one of the smallest footprint on the market with only 2,53 m² for sizes 50-130 and 4,36 m² for sizes 150-170
- Reduced sound levels: S version (super low noise) with EC fan and compressor sound jackets
- 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

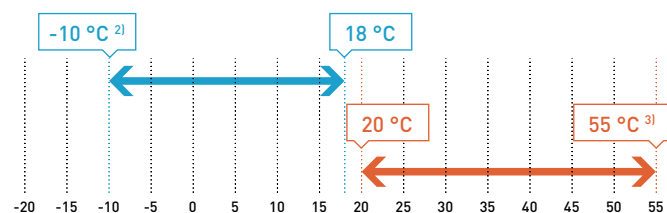
To be confirmed with AC SELECT:

<https://acselect.panasonic.eu/>

Ambient temperature.



Leaving water temperature.



1) 47 °C for sizes 150-170.

2) With glycol, 5 °C without glycol.

3) 53 °C for sizes 150-170.

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 selection tool. Configure your air conditioning solution at required conditions:

<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	
	Frequency	Hz	50	50	50	50	50	50	50	50	50	
Size			50	60	70	75	85	100	115	130	150	170
ECOi-W AQUA-Z 50-170 C - chiller		P-AQAZ****CA	0050	0060	0070	0075	0085	0100	0115	0130	0150	0170
Cooling capacity ¹⁾		kW	51,6	57,6	69,7	78,2	82,8	100	116	126	154	173
Input power ¹⁾		kW	16,5	19,6	22,4	24	26,8	31,4	37,4	42,3	47,4	55,7
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	3,25/3,38	3,11/3,20
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	4,70/5,22	4,68/5,16
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	184,8 / 205,6	184,2 / 203,2
Nominal water flow [in the evaporator]		m³/h	9,2	10,6	12,2	13,2	14,7	17,9	21,1	23,5	27,2	30,7
Sound power (STD AC / S) *		dB(A)	83 / 81	84 / 81	81 / 78	81 / 78	84 / 82	86 / 83	87 / 84	87 / 84	89 / 86	91 / 88
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	57 / 54	59 / 56
ECOi-W AQUA-Z 50-170 H - heat pump		P-AQAZ****HA	0050	0060	0070	0075	0085	0100	0115	0130	0150	0170
Cooling capacity ¹⁾			51,1	57	69	77,4	82	99,3	115	125	152	170
Input power ¹⁾			16,7	19,8	22,6	24,3	27,1	31,8	37,7	42,7	47,9	57,1
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	3,17/3,30	2,98/3,07
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	3,63/3,76	3,39/3,56
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	4,59/5,04	4,49/4,92
η _{s,c} (STD AC / STD EC) ^{*2)}			175,2 / 190,2	173,6 / 176,9	177,5 / 198,8	181,5 / 196,7	170,3 / 188,9	187,7 / 194,1	174,6 / 190,0	166 / 177,2	180,5 / 198,7	176,6 / 193,8
Nominal water flow [in the evaporator]		m³/h	8,7	10,6	12,2	13,2	14,7	17,9	21,1	23,5	27,2	30,7
Heating capacity ⁶⁾		kW	51,7	59,7	71,8	78,5	86,5	107,6	122,3	137,5	159,1	180,1
Input power ⁶⁾		kW	16,5	19,3	22,1	24,2	27,2	32,5	37,0	41,0	48,2	54,5
COP (STD AC / STD EC) ^{*6)}			3,12/3,27	3,10/3,21	3,24/3,43	3,24/3,41	3,19/3,30	3,31/3,45	3,31/3,42	3,36/3,42	3,30/3,48	3,31/3,40
COP (STD AC / STD EC) ^{*7)}			3,81/4,00	3,80/3,92	3,92/4,21	3,91/4,16	3,92/4,16	3,99/4,19	4,10/4,26	4,04/4,12	4,07/4,31	4,02/4,16
SCOP (STD AC / STD EC) ^{*2) 8)}			3,53/3,90	3,54/3,94	3,47/3,71	3,65/3,80	3,60/4,02	3,64/4,10	3,66/4,02	3,72/3,97	3,57/4,04	3,60/3,95
Energy efficiency class (STD AC / STD EC) ^{*2) 7)}		A+++ to D	A+ / A+	A+ / A+	A+ / A++	A+ / A++	A+ / A++	— / —	— / —	— / —	— / —	— / —
η _{s,h} (STD AC / STD EC) ^{*2) 7)}			138,0 / 152,8	138,5 / 154,5	135,6 / 145,3	143,2 / 148,8	141,2 / 157,8	142,5 / 160,9	143,2 / 157,9	145,7 / 155,9	139,9 / 158,4	140,9 / 155,2
Nominal water flow [in the evaporator]		m³/h	9,3	10,7	12,5	13,9	15,0	18,3	21,5	23,9	27,5	31,7
Sound power (STD AC / S) *		dB(A)	83 / 81	84 / 81	81 / 78	81 / 78	84 / 82	86 / 83	87 / 84	87 / 84	89 / 86	91 / 88
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	57 / 54	59 / 56

Physical features

ECOi-W AQUA-Z 50-170 C/H - chiller / heat pump		50	60	70	75	85	100	115	130	150	170
Dimension	Height (STD / EC/HPF)	mm	1986/2034	1986/2034	1986/2034	1986/2034	2286/2334	2286/2334	2286/2334	2285/2333	2285/2333
	Width	mm	1160	1160	1160	1160	1160	1160	1160	1151	1151
	Length without water tank	mm	2180	2180	2180	2180	2180	2180	2180	3789	3789
Operating weight without water tank - 1 pump		kg	527	547	621	637	701	731	813	815	1279
Water connections											
Type of water connections (evaporator)			Male gas threaded BSP ISO 228	Male gas threaded BSP ISO 228	Male gas threaded BSP ISO 228	Male gas threaded BSP ISO 228	Male gas threaded BSP ISO 228	Male gas threaded BSP ISO 228	Male gas threaded BSP ISO 228	Male gas threaded BSP ISO 228	Male gas threaded BSP ISO 228
Water inlet/outlet diameter		Inch	2	2	2	2	2 ½	2 ½	2 ½	2 ½	2 ½

1) According EN 14511-2018: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 2) According EN 14825. 3) ErP compliant: following COMMISSION REGULATION (EU) 2016/2281. 4) Sound pressures refer to ISO 3744 standard, parallelepiped shape. 5) According EN 14511-2018: chilled water inlet/outlet temperature: 23/18 °C, outdoor ambient temperature 35 °C DB. 6) According EN 14511-2018: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 7) According EN 14511-2018: 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

Anti-vibration rubber mount / spring dampers *

Compressor jackets (standard for S versions)

Desuperheater

Electrical heater for the water tank

Fin&Tube Al/Cu with epoxy / Blygold treatment

High efficiency EC fan

Accessories and options

High pressure fan (HPF)

Outdoor coil protection grid

Power factor corrector capacitors

Refrigerant gauges HP/LP

Shut off valves

Soft starter

Accessories and options

Variable speed pumps

Water pressure switch *

Water tank 300 L

Without neutral

Communication protocols: Modbus RTU (Std.), Modbus TCP/IP, BACnet MSTP, BACnet IP

* Field-installed accessories. All other accessories are factory-installed.

Accessories supplied loose

P-375281 SRC - mini BMS controller

P-586595 Cascade controller

P-372061 Remote keyboard panel

Accessories supplied loose

P-372615 Kit 4G modem

SVC-HYD-COMM-CLD1 1-year pre-paid Cloud access

SVC-HYD-COMM-CLD3 3-year pre-paid Cloud access



ECOi-W AQUA-Z DC 150-380 C/H · R32

Air cooled chillers and heat pumps.

Cooling capacity: 151 to 377 kW.

Heating capacity: 154 to 384 kW.

R32
REFRIGERANT



The range at a glance

- 2 versions: C (chiller) and H (heat pump)
- 10 sizes for C version and 13 sizes for H version
- 3 different chassis
- SEER up to 4,93 (STD AC) / 5,23 (STD EC)
- SCOP up to 3,90 (STD AC) / 4,00 (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

- Low GWP R32 refrigerant (GWP= 675)
- Double circuit units able to work in partial load from around 20% of total capacity
- Very high efficiency
- Wide operating limits
- Reduced sound levels: S version (super low noise) with EC fan and compressor sound jackets for sizes 150-380, additional compressor box for sizes 190-380
- New intelligent control logic
- Easy maintenance: great accessibility to the internal components
- Cascade controller available for multi system operation with capacity boost up to 3040 kW
- SG Ready
- 100% factory tested

Equipment

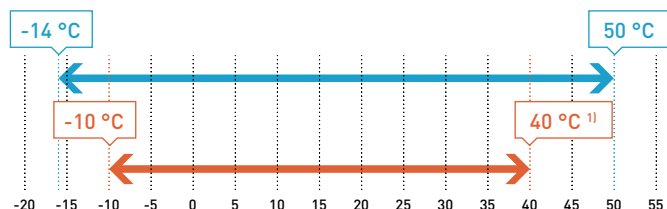
- 2 refrigerant circuits with tandem scroll compressors for a higher efficiency at partial load
- Stainless steel plate heat exchanger insulated with closed cell synthetic foam
- Microchannel coils only for C version (sizes 190-380)
- Fin&Tube coil condenser constructed with seamless copper tubes mechanically expanded into aluminium fins
 - Bluefin treatment for H version
- 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
- Digital input for Night Mode, Demand mode or Eco Mode for energy savings and reduced sound levels
- Electronic expansion valve
- Water compensation curve control
- Return and leaving water temperature control
- Water flow switch (sizes 150-170)
- Differential pressure switch (sizes 190-380)
- Phase sequence monitor
- Automatic circuit breaker
- Without neutral

Operating limits

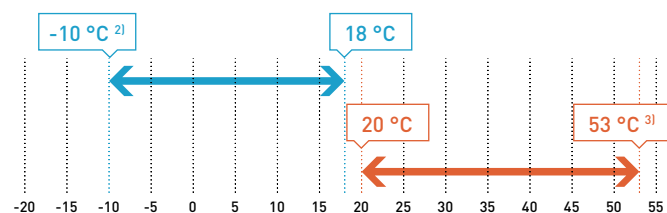
To be confirmed with AC SELECT:

<https://acselect.panasonic.eu/>

Ambient temperature.



Leaving water temperature.



1) With EC fans.

2) With glycol, 5 °C without glycol.

3) 55 °C sizes 150-170.



Technical performance

Size		150	170	190	210	230	260	290	320	350	380			
ECoi-W AQUA-Z DC 150-380 C - chiller	P-AQADZ****CA	STD AC / STD EC	STD AC / STD EC	STD AC / STD EC	STD AC / STD EC	STD AC / STD EC	STD AC / STD EC	STD AC / STD EC	STD AC / STD EC	STD AC / STD EC	STD AC / STD EC			
Cooling capacity ¹⁾	kW	151,0/151,0	170,0/170,0	189,0/189,0	212,0/214,0	229,0/229,0	260,0/260,0	307,0/307,0	326,0/325,0	346,0/347,0	377,0/377,0			
Input power ¹⁾	kW	49,7/49,0	56,7/55,9	59,4/57,3	69,1/66,5	75,1/72,7	90,0/87,8	95,9/92,5	104,2/100,0	112,0/108,1	126,9/122,8			
EER ¹⁾		3,04/3,08	3,00/3,04	3,18/3,30	3,07/3,22	3,05/3,15	2,89/2,96	3,20/3,32	3,13/3,25	3,09/3,21	3,0/3,1			
SEER ²⁾		4,93/5,2	4,90/5,15	4,68/5,23	4,62/5,20	4,48/4,90	4,40/4,79	4,63/5,13	4,33/5,12	4,43/4,79	4,35/4,8			
$\eta_{s,c}$ ²⁾	%	194,0/204,0	192,8/203,0	184,3/206,1	181,8/204,8	176,3/192,9	173,1/188,4	182,0/202,2	170,0/188,8	174,2/188,5	171,0/188,8			
Cooling capacity (A 35 °C, W 23/18 °C)	kW	191,0/193,0	213,0/217,0	242,0/243,0	269,0/271,0	294,0/295,0	331,0/339,7	389,0/390,0	415,0/412,0	442,0/444,0	483,0/484,0			
Input power (A 35 °C, W 23/18 °C)	kW	53,8/52,7	62,1/61,2	64,2/61,3	74,5/71,6	82,9/79,9	98,2/96,8	103,0/99,4	112,0/109,0	123,0/119,0	139,0/136,0			
Water flow	m³/h	26,0/25,9	29,2/29,2	32,5/32,5	36,5/36,8	39,4/39,4	44,7/44,7	52,8/52,8	56,1/55,9	59,5/59,7	64,8/64,8			
Sound power (STD)	dB(A)	89,6/89,0	90,4/89,9	91,1/90,9	91,5/91,3	92,0/91,9	92,4/92,3	93,3/93,1	94,3/94,2	95,2/95,1	95,4/95,3			
Sound pressure (STD) *	dB(A)	57,5/56,9	58,3/57,8	59,0/58,8	59,4/59,2	59,9/59,8	60,3/60,2	61,1/60,9	62,1/62,0	63,0/62,9	63,2/63,1			
Sound power (S)	dB(A)	—/85,0	—/85,4	—/87,2	—/87,4	—/87,6	—/87,8	—/88,6	—/89,7	—/90,1	—/90,3			
Sound pressure (S) *	dB(A)	—/52,9	—/53,3	—/55,1	—/55,3	—/55,5	—/55,7	—/56,4	—/57,5	—/57,9	—/58,1			
Size		150	170	190	210	220	230	260	270	290	300	320	350	380
ECoi-W AQUA-Z DC 150-380 H - heat pump	P-AQADZ****HA	STD AC / STD EC	STD AC / STD EC	STD AC / STD EC	STD AC / STD EC	STD AC / STD EC	STD AC / STD EC	STD AC / STD EC	STD AC / STD EC	STD AC / STD EC	STD AC / STD EC	STD AC / STD EC	STD AC / STD EC	STD AC / STD EC
Cooling capacity ¹⁾	kW	150/150	167/167	184/183	204/204	208	224/224	251/251	265	291,1/289,3	295	307,7/310,7	330/331	364/364,3
Input power ¹⁾	kW	49,7/49,0	56,6/55,9	62,0/59,6	72,1/69,9	67,3	76,7/74,4	93,0/90,6	83,1	101,3/96,6	93,1	107,5/103,3	114,2/110,0	131,7/128,1
Total EER ¹⁾		3,02/3,06	2,95/2,99	2,97/3,07	2,83/2,92	3,09	2,92/3,01	2,7/2,77	3,19	2,87/2,99	3,17	2,86/3,00	2,89/3,01	2,76/2,84
Total EER (A 35 °C, W 23/18 °C)		3,53/3,60	3,41/3,51	3,41/3,58	3,22/3,37	3,63	3,45/3,60	3,12/3,18	3,83	3,32/3,46	3,72	3,31/3,52	3,32/3,52	3,16/3,30
SEER ²⁾		4,75/5,03	4,71/4,97	4,45/4,94	4,39/4,82	5,03	4,34/4,71	4,21/4,55	5,01	4,34/4,83	5,01	4,33/4,89	4,40/4,79	4,34/4,65
$\eta_{s,c}$ ²⁾	%	187,1 / 198,1	185,3 / 195,7	175,2 / 194,6	172,5 / 189,6	198	170,6 / 185,5	165,5 / 179,1	197,5	170,4 / 190,1	197,3	170 / 192,4	172,9 / 188,5	170,5 / 182,9
Water flow	m³/h	25,8/25,8	28,7/28,7	31,6/31,5	35,1/35,1	35,8	38,5/38,5	43,2/43,2	45,6	50,1/49,8	50,7	52,9/53,4	56,8/56,9	62,6/62,7
Heating capacity ³⁾	kW	154/154	178/179	190/190	201/201	219	241/241	256,9/258,5	288	285,6/284,8	312	301,3/316,5	337/340	384/384,5
Input power ³⁾	kW	48,8/48,2	54,9/54,4	61,3/58,6	68,5/65,9	67	75,4/72	87,6/85,0	88,3	97,5/93,2	94,6	103,2/100,1	111/107	128/122,4
Total COP ³⁾		3,16/3,20	3,24/3,29	3,10/3,24	2,93/3,05	3,27	3,20/3,35	2,93/3,04	3,26	2,93/3,05	3,30	2,92/3,16	3,04/3,18	3,00/3,14
Total COP (A 7 °C, W 30/35 °C)		3,67/3,82	3,98/4,04	3,57/3,80	3,43/3,59	4,01	3,86/4,04	3,56/3,68	4,00	3,47/3,61	3,86	3,45/3,86	3,69/3,82	3,54/3,66
SCOP ⁴⁾		3,83/4,00	3,90/4,00	3,46/3,89	3,44/3,90	3,86	3,64/3,99	3,52/3,85	3,82	3,51/3,91	3,92	3,50/3,85	3,50/3,87	3,66/3,95
$\eta_{s,h}$ ⁴⁾	%	150 / 157,1	152,8 / 156,8	135,6 / 152,7	134,7 / 152,8	151,3	142,5 / 156,4	137,9 / 151	149,7	137,4 / 153,2	153,7	137 / 151,2	136,9 / 151,9	143,4 / 155,1
Water flow	m³/h	26,5/26,5	30,6/30,8	32,7/32,7	34,6/34,6	37,7	41,5/41,5	44,2/44,5	49,5	49,1/49,0	53,7	51,8/54,4	58,0/58,5	66,0/66,1
Sound power (STD)	dB(A)	89,6/89,0	90,4/89,9	91,1/90,9	91,5/91,3	91,3	92,0/91,9	92,4/92,3	92,8	93,3/93,1	93,1	94,3/94,2	95,2/95,1	95,4/95,3
Sound pressure (STD) ⁵⁾	dB(A)	57,5/56,9	58,3/57,8	59,0/58,8	59,4/59,2	59,2	59,9/59,8	60,3/60,2	60,7	61,1/60,9	60,9	62,1/62,0	63,0/62,9	63,2/63,1
Sound power (S)	dB(A)	—/85,0	—/85,4	—/87,2	—/87,4	87,4	—/87,6	—/87,8	88,5	—/88,6	88,6	—/89,7	—/90,1	—/90,3
Sound pressure (S) ⁵⁾	dB(A)	—/52,9	—/53,3	—/55,1	—/55,3	55,3	—/55,5	—/55,7	56,4	—/56,4	56,4	—/57,5	—/57,9	—/58,1

Physical features

ECOi-W AQUA-Z DC 150-380 C/H - chiller / heat pump		150	170	190	210	220	230	260	270	290	300	320	350	380
Dimension	Height (STD AC) / (EC/HPF) mm	2240 / 2312	2240 / 2312	2250 / 2300	2250 / 2300	— / 2300	2250 / 2300	2250 / 2300	— / 2300	2250 / 2300	— / 2300	2250 / 2300	2250 / 2300	2250 / 2300
	Width mm	1152	1152	2211	2211	2211	2211	2211	2211	2211	2211	2211	2211	2211
	Length mm	3795	3795	2676	2676	2676	2676	2676	3801	3801	3801	3801	3801	3801

1) According EN 14511-2018: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 2) According EN 14825 and Following COMMISSION REGULATION (EU) 2016/2281.
3) According EN 14511-2018: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 4) According EN 14825 and Following COMMISSION REGULATION (EU) No 813/2013.
5) Sound levels are at fully loaded conditions. Sound power values refers to ISO 3744 standard.

Accessories and options

Anti-vibration rubber mount *
Desuperheater for sizes 190-380
Energy meter for power input
Fin&Tube Al/Cu with Epoxy / Blygold treatment
High efficiency EC fan
High pressure fan (HPF)

Accessories and options

Mechanical gauges kit (HP and LP manometers)
Coil guards for sizes 150-170
Chiller grilles and drain pan for sizes 190-380
Power factor corrector capacitors
Shut off valves *
Soft starter

Accessories and options

Super low noise [S] version
Compressor jackets
Compressor box for sizes 190-380
Variable speed pumps
Water pressure switch
Water tank

* Field-installed accessories. All other accessories are factory-installed.

Accessories supplied loose

P-586595	Cascade controller
P-372061	Remote keyboard panel
P-372615	Kit 4G modem
SVC-HYD-COMM-CLD1	1-year pre-paid Cloud access
SVC-HYD-COMM-CLD3	3-year pre-paid Cloud access
P-477042	AVS - anti-vibration spring for sizes 150-170
P-477044	AVS - anti-vibration Spring for sizes 190-260 C version
P-477045	AVS - anti-vibration Spring for sizes 190-260 H version

Accessories supplied loose

P-477047	AVS - anti-vibration Spring for sizes 270-380
P-477043	AVS - anti-vibration Spring with tank for sizes 150-170
P-477046	AVS - anti-vibration Spring with tank for sizes 190-260
P-477048	AVS - anti-vibration Spring with tank for sizes 290-380 C version
P-477049	AVS - anti-vibration Spring with tank for sizes 270-380 H version
P-348619	WF - water filter





ECOi-W AQV C/H/E - R410A

Air cooled chillers, heat pumps and condensing units.

Cooling capacity: 83,3 to 136,6 kW.

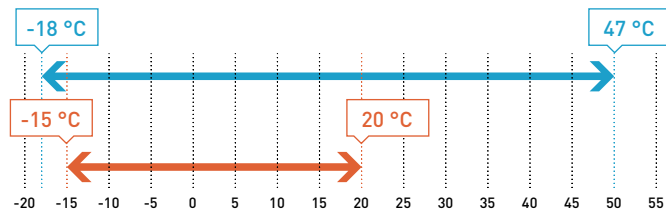
Heating capacity: 91,8 to 146,9 kW.



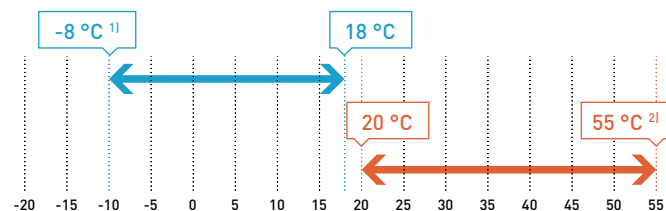
Operating limits

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

Ambient temperature (chiller and heat pump).



Leaving water temperature (chiller 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.

The range at a glance

- 3 versions: C (chiller), 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)
- 2 acoustic options: STD (standard) and S (super low noise)

Advantages

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

Equipment

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

ECOi-W AQV 85-140 C/H - chiller / 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 / HPE	Pa	0 / <120

ECOi-W AQV 85-140 E - condensing unit

Evaporating limit			°C	From 1 to 15
Outdoor air temperature		STD	°C	From 0 to 48
		S	°C	From -18 to 45
		HT	°C	From 0 to 50



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 - chiller			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 - chiller			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 - chiller			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 EN 14511-2013: 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 EN 14825. 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
Coils treatments
Desuperheater
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
Several communication protocols
Soft starter
Unit protection grilles
Water differential pressure

Accessories supplied loose

P-376463 Sequencer for up to 4 chillers installation
P-347941 Remote ON / OFF
P-364735 Remote keyboard panel
P-348000 Coil guards for sizes 85-115
P-348001 Coil guards for sizes 125-140

Accessories supplied loose

P-347999 Chiller grilles for sizes 85-115
P-347998 Chiller grilles for sizes 125-140
P-473465 Pressure switch
P-348615 Water filter for sizes 85-105
P-348616 Water filter for sizes 115-140





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 ⁴⁾			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 ⁴⁾			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 EN 14511-2013: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 2) According EN 14825. 3) According EN 14511-2013: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 4) According EN 14511-2013: warm water inlet/outlet temperature: 30/35 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 5) ErP compliant: following COMMISSION REGULATION (EU) No 813/2013. 6) Sound levels are at fully loaded conditions. Sound power values refers to ISO 3744 standard. 7) Sound pressures refer to ISO 3744 standard, parallelepiped shape.



Technical performance

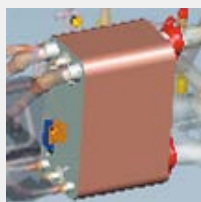
Power supply	Voltage	V	400	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50
Size			85	95	105	115	125	140
ECOi-W AQV 85-140 E STD / HSE / HPF - condensing unit			P-AQVE0085EA	P-AQVE0095EA	P-AQVE0105EA	P-AQVE0115EA	P-AQVE0125EA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

Physical features

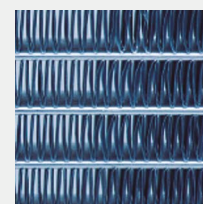
ECOi-W AQV 85-140 C/H/E - chiller / heat pump / condensing unit			85	95	105	115	125	140
Dimension	HxWxL	mm	2185 x 1095 x 2555	2185 x 1095 x 2555	2185 x 1095 x 2555	2185 x 1095 x 2555	2185 x 1095 x 3155	2185 x 1095 x 3155
Operating weight (C type)	STD / HT / S	kg	1058 / 1058 / 1088	1072 / 1072 / 1102	1111 / 1111 / 1141	1143 / 1143 / 1173	1183 / 1183 / 1213	1262 / 1262 / 1292
Operating weight (H type)	STD / HT / S	kg	1090 / 1090 / 1120	1105 / 1105 / 1135	1149 / 1149 / 1179	1180 / 1180 / 1210	1227 / 1227 / 1257	1301 / 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 EN 14511-2013 standard. 2) Sound levels are at fully loaded conditions. Sound power values refers to ISO 3744 standard. 3) Sound pressures refer to ISO 3744 standard, parallelepiped shape.

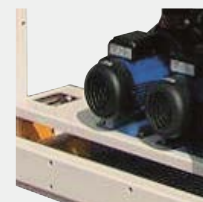
Special Inverter fan.
Option.



True dual circuit evaporator.
Optimised heat transfer coefficient.



Bluefin coil.
As standard on H models.



3 pump option.
Energy saving in partial load.



ECOi-W VL H/E · R410A

Air cooled heat pumps and condensing units.

Cooling capacity: 176,2 to 307 kW.

Heating capacity: 200 to 337,4 kW.



Operating limits

To be confirmed with AC SELECT:

<https://acselect.panasonic.eu/>

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

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

The range at a glance

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

Advantages

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

Equipment

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

Accessories and options

Anti-vibration spring dampers
Automatic circuit breaker
Coils treatments
Compressor jackets (standard on S)
Desuperheater
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
Several communication protocols
Soft starter
Unit protection grilles



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

1) According EN 14511-2013: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 2) According EN 14825. 3) According EN 14511-2013: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 4) According EN 14511-2013: 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.

Accessories supplied loose

P-376463	Sequencer for up to 4 chillers installation
P-347941	Remote ON / OFF
P-364735	Remote keyboard panel
P-348003	Chiller grilles

Accessories supplied loose

P-365581	Flow switch
P-473465	Pressure switch
P-348619	Water filter





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
η_{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
Size			704	804	904	1004	1104	1204
ECOi-W VL 704-1204 E STD / HPF - condensing unit			P-VLE0704EA	P-VLE0804EA	P-VLE0904EA	P-VLE1004EA	P-VLE1104EA	P-VLE1204EA
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 EN 14511-2013: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 2) According EN 14825. 3) According EN 14511-2013: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 4) According EN 14511-2013: 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 - heat pump / condensing unit			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 1/2	2 1/2	3	3	3	3
ECOi-W VL 704-1204 E - condensing unit			704	804	904	1004	1104	1204
Refrigerant connections								
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 230-360 C/H/E · R410A

Air cooled chillers, heat pumps and condensing units.

Cooling capacity: 231 to 360,7 kW.

Heating capacity: 229 to 361,4 kW.



Operating limits

To be confirmed with AC SELECT:

<https://acselect.panasonic.eu/>

ECOi-W AQUA EVO 230-360 C - chiller				
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	STD fans		Pa	0
	High pressure fan (HPF)		Pa	<120
ECOi-W AQUA EVO 230-360 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	STD fans		Pa	0
	High pressure fan (HPF)		Pa	<120
ECOi-W AQUA EVO 230-360 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 C; upon request for H).

The range at a glance

- 3 versions: C (chiller), 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 (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 (C type)
- E-coating coil treatment
- Brine version: chiller 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
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50
Size			230	260	280	300	330	360
ECOi-W AQUA EVO 230-360 C - chiller			P-AQAVE0230CA	P-AQAVE0260CA	P-AQAVE0280CA	P-AQAVE0300CA	P-AQAVE0330CA	P-AQAVE0360CA
Nominal cooling capacity ²⁾	kW		231	263	284	310	331	362
Input power ²⁾	kW		74,8	84,6	91,3	99,0	104,7	116,8
EER ²⁾ / EER*			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)}			4,25	4,25	4,23	4,18	4,20	4,10
η_{s,c} ^{3) 4)}			167	167	166	164	165	161
Nominal water flow (in the evaporator)	m ³ /h		39,6	45,2	48,8	53,2	56,9	62,1
Sound power ⁵⁾	dB(A)		92	93	93	94	95	95
Sound pressure 10 m ⁶⁾	dB(A)		60	61	61	62	63	63
ECOi-W AQUA EVO 230-360 C L - chiller			230	260	280	300	330	360
Nominal cooling capacity ²⁾	kW		224	256	276	301	322	351
Input power ²⁾	kW		74,4	84,5	92,0	99,7	104,9	117,8
EER ²⁾ / EER*			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)}			4,28	4,28	4,25	4,25	4,25	4,10
η_{s,c} ^{3) 4)}			168	168	167	167	167	161
Nominal water flow (in the evaporator)	m ³ /h		38,4	43,9	47,4	51,7	55,3	60,2
Sound power ⁵⁾	dB(A)		87	88	88	89	90	90
Sound pressure 10 m ⁶⁾	dB(A)		55	56	56	57	58	58
ECOi-W AQUA EVO 230-360 C S - chiller			230	260	280	300	330	360
Nominal cooling capacity ²⁾	kW		210	242	259	283	305	329
Input power ²⁾	kW		79,2	88,6	97,4	105,6	109,7	123,7
EER ²⁾ / EER*			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)}			4,1	4,15	4,1	4,1	4,1	4,1
η_{s,c} ^{3) 4)}			161	163	161	161	161	161
Nominal water flow (in the evaporator)	m ³ /h		36,1	41,5	44,6	48,6	52,4	56,6
Sound power ⁵⁾	dB(A)		82	83	83	85	86	86
Sound pressure 10 m ⁶⁾	dB(A)		50	51	51	53	54	54
ECOi-W AQUA EVO 230-360 C HT - chiller			230	260	280	300	330	360
Nominal cooling capacity ²⁾	kW		232	265	286	312	333	364
Input power ²⁾	kW		77,6	87,9	94,7	103,7	109,9	121,7
EER ²⁾			2,99	3,01	3,02	3,01	3,03	2,99
SEER ^{3) 4)}			4,63	4,65	4,63	4,68	4,65	4,43
η_{s,c} ^{3) 4)}			182	183	182	184	183	174
Nominal water flow (in the evaporator)	m ³ /h		40,0	45,6	49,3	53,7	57,3	62,7
Sound power ⁵⁾	dB(A)		94	96	96	97	98	98
Sound pressure 10 m ⁶⁾	dB(A)		62	64	64	65	66	66

1) Voltage 400 V +/- 10%. 2) According EN 14511-2013: 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 EN 14825. 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.

Accessories and options

Anti-vibration spring dampers
Automatic circuit breaker
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)
Mechanical gauges

Accessories and options

Overload protection for compressors
Power factor corrector capacitors
Several communication protocols
Soft starter
Unit protection grilles
Variable pump

Accessories supplied loose

P-376463	Sequencer for up to 4 chillers installation
P-347941	Remote ON / OFF control
P-364735	Remote keyboard panel
P-365581	Flow switch

Accessories supplied loose

P-473465	Pressure switch
P-348619	Water filter
P-348619	Water filter



Technical performance

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

1) Voltage 400 V +/- 10%. 2) According EN 14511-2013: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 3) According EN 14825. 4) According EN 14511-2013: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 5) According EN 14511-2013: 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
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50
Size			230	260	280	300	330	360
ECOi-W AQUA EVO 230-360 E - condensing unit			P-AQAVE0230EA	P-AQAVE0260EA	P-AQAVE0280EA	P-AQAVE0300EA	P-AQAVE0330EA	P-AQAVE0360EA
Nominal cooling capacity ¹⁾	kW		250	288	313	337	361	395
Input power ¹⁾	kW		74,6	84,4	91,6	99,4	105	117
Sound power ²⁾	dB(A)		92	93	93	94	95	95
Sound pressure at 10 m ³⁾	dB(A)		60	61	61	62	63	63
ECOi-W AQUA EVO 230-360 E L - condensing unit			230	260	280	300	330	360
Nominal cooling capacity ¹⁾	kW		242	279	302	326	351	381
Input power ¹⁾	kW		75,4	84,8	92,6	100	105	118
Sound power ²⁾	dB(A)		87	88	88	89	90	90
Sound pressure at 10 m ³⁾	dB(A)		55	56	56	57	58	58
ECOi-W AQUA EVO 230-360 E S - condensing unit			230	260	280	300	330	360
Nominal cooling capacity ¹⁾	kW		225	262	281	305	330	356
Input power ¹⁾	kW		80,1	89,6	98,4	107	111	126
Sound power ²⁾	dB(A)		82	83	83	85	86	86
Sound pressure at 10 m ³⁾	dB(A)		50	51	51	53	54	54
ECOi-W AQUA EVO 230-360 E HT - condensing unit			230	260	280	300	330	360
Nominal cooling capacity ¹⁾	kW		253	291	316	341	364	398
Input power ¹⁾	kW		78,2	88,9	95,8	105	111	123
Sound power ²⁾	dB(A)		94	96	96	97	98	98
Sound pressure at 10 m ³⁾	dB(A)		62	64	64	65	66	66

Physical features

ECOi-W AQUA EVO 230-360 C/H - chiller / heat pump			230	260	280	300	330	360
Dimension	H x W x L	mm	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 - chiller	STD / L	kg	1693	1890	1953	2227	2345	2519
	S	kg	1698	1895	1958	2232	2350	2524
	HT	kg	1743	1950	2013	2297	2425	2599
Operating weight - heat pump	STD / L	kg	2078	2343	2458	2702	2887	3063
	S	kg	2083	2348	2463	2707	2892	3068
	HT	kg	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
Water inlet/outlet diameter	Inch		3	3	3	3	3	3
ECOi-W AQUA EVO 230-360 E - condensing unit			230	260	280	300	330	360
Dimension	H x W x L	mm	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		1542	1726	1788	1946	2061	2235
Refrigerant connections								
Connection type			To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed
Inlet diameter	Inch		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 - 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: 390,4 to 775,4 kW.

Heating capacity: 404 to 805,3 kW.



Operating limits

To be confirmed with AC SELECT:

<https://acselect.panasonic.eu/>

ECOi-W AQUA EVO 400-800 C - chiller				
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	STD 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	STD 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 (chiller) and H (heat pump)
- 8 sizes (C type) / 9 sizes (H type)
- 3 configurations: STD (standard), HT (high temperature) 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: chiller 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 (MCHX)
- E-coating coil treatment as standard on MCHX
- Compressor acoustic box
- Compressor jackets (standard as S version)
- Fan speed control (standard as EC/HPF/S versions)
- Phase sequence control
- Water differential pressure switch

Accessories and options

Anti-vibration spring dampers

Automatic circuit breaker

Coils treatments

Desuperheater

Fan speed control (-14 °C in cooling mode – standard as EC/HPF/S versions)

Hydrokit with 1 or 2 pumps with or without buffer tank (500 L 400-450, 1000 L 470-670)

Mechanical gauges

Overload protection for compressors

Power factor corrector capacitors

Several communication protocols

Soft starter

Unit protection grilles

Variable pump (for sizes 750-800 upon request)



Technical performance

Power supply ¹⁾	V / Phase / Hz	400/3ph/50	400/3ph/50	400/3ph/50	400/3ph/50	400/3ph/50	400/3ph/50	400/3ph/50	400/3ph/50
Size		400	450 S	490 S	530 S	600	670	750 S	800 S
ECOi-W AQUA EVO 400-800 C AC - chiller									
	P-AQAVE	0400CA	0450CA	0490CA	0530CA	0600CA	0670CA	0750CA	0800CA
Nominal cooling capacity ²⁾	kW	390,4	431,1	470,2	513,7	584,5	653,2	727,7	775,4
Input power ²⁾	kW	126,7	138,6	152,7	167,9	189,1	210,7	234,7	250,1
EER ²⁾		3,08	3,11	3,08	3,06	3,09	3,10	3,10	3,10
SEER ^{3) 4)} / $\eta_{s,c}$ ^{3) 4)}	— / %	4,48 / 176	4,63 / 182	4,58 / 180	4,78 / 188	4,58 / 180	4,59 / 180,7	4,73 / 186	4,70 / 185
Nominal water flow (in the evaporator)	m ³ /h	68,0	75,1	82,0	89,5	101,8	113,9	113,9	135,1
Sound power ⁵⁾ / pressure at 10 m ⁶⁾	dB(A)	92 / 60	87 / 54	87 / 54	87 / 54	94 / 61	94 / 61	89 / 56	89 / 56
ECOi-W AQUA EVO 400-800 C EC - chiller									
	400	450 S	490 S	530 S	600	670	750 S	800 S	
Nominal cooling capacity ²⁾	kW	400,0	447,0	489,0	535,0	599,0	669,0	751,4	801,4
Input power ²⁾	kW	127,0	140,0	154,0	170,0	189,0	211,0	239,7	255,7
EER ²⁾		3,15	3,19	3,17	3,16	3,17	3,17	3,13	3,13
SEER ^{3) 4)} / $\eta_{s,c}$ ^{3) 4)}	— / %	4,65 / 183	4,58 / 180	4,68 / 184	4,55 / 179	4,78 / 188	4,87 / 192	4,65 / 183	4,68 / 184
Nominal water flow (in the evaporator)	m ³ /h	68,8	76,9	84,2	92,2	103,1	115,1	131,0	139,7
Sound power ⁵⁾ / pressure at 10 m ⁶⁾	dB(A)	92 / 60	93 / 61	93 / 60	94 / 61	94 / 61	94 / 61	95 / 62	95 / 62

Power supply ¹⁾	V / Phase / Hz	400/3ph/50	400/3ph/50	400/3ph/50	400/3ph/50	400/3ph/50	400/3ph/50	400/3ph/50	400/3ph/50	400/3ph/50	
Size		400	450	490	530	580 S	620 S	670 S	750 S	800 S	
ECOI-W AQUA EVO 400-800 H AC - heat pump		P-AQAVE	0400HA	0450HA	0490HA	0530HA	0580HA	0620HA	0670HA	0750HA	0800HA
Nominal cooling capacity ²⁾	kW	365,58	410,32	444,87	479,32	520,14	566,34	608,33	686,63	727,45	
Input power ²⁾	kW	129,64	144,48	157,76	169,37	179,36	194,62	209,77	235,96	250,84	
EER ²⁾		2,82	2,84	2,82	2,83	2,90	2,91	2,90	2,91	2,90	
SEER ⁴⁾ / $\eta_{s,c}$ ⁴⁾	— / %	4,65 / 183	4,53 / 178	4,70 / 185	4,55 / 179	4,60 / 181	4,60 / 181	4,55 / 179	4,55 / 179	4,58 / 180	
Nominal water flow (in the evaporator)	m³/h	63,6	71,4	77,4	83,5	90,6	98,7	106,0	119,6	126,8	
Nominal heating capacity ⁷⁾	kW	404,0	450,9	492,7	532,1	585,6	627,1	676,7	757,4	805,3	
Input power ⁷⁾	kW	125,9	140,9	154,0	166,3	183,0	193,0	209,5	233,8	247,8	
COP ⁷⁾		3,21	3,20	3,20	3,20	3,20	3,25	3,23	3,24	3,25	
COP ⁸⁾		3,87	3,81	3,84	3,86	3,95	4,01	3,963,85	4,02	3,99	
SCOP ⁴⁾ / $\eta_{s,h}$ ⁴⁾	— / %	3,46 / 135	3,47 / 136	3,37 / 132	3,38 / 132	— / —	— / —	— / —	— / —	— / —	
Nominal water flow (in the evaporator)	m³/h	70,4	78,6	85,9	92,7	102,0	109,3	118,0	132,1	140,5	
Sound power ⁵⁾ / pressure at 10 m ⁶⁾	dB(A)	92 / 60	93 / 61	93 / 60	94 / 61	88 / 55	88 / 55	88 / 55	89 / 56	89 / 56	
ECOI-W AQUA EVO 400-800 H EC - heat pump		400	450	490	530	580 S	620 S	670 S	750 S	800 S	
Nominal cooling capacity ²⁾	kW	373,5	419,2	454,5	498,7	533,0	580,0	621,5	704,0	746,0	
Input power ²⁾	kW	129,0	144,1	156,9	168,6	178,0	194,0	208,2	236,0	251,0	
EER ²⁾		2,90	2,91	2,90	2,90	2,99	2,99	2,99	2,99	2,97	
SEER ⁴⁾ / $\eta_{s,c}$ ⁴⁾	— / %	4,93 / 194	4,83 / 190	4,97 / 196	4,88 / 192	4,75 / 187	4,73 / 186	4,70 / 185	4,65 / 183	4,65 / 183	
Nominal water flow (in the evaporator)	m³/h	64,4	72,3	78,4	84,5	92,9	101,1	107,2	122,7	130,1	
Nominal heating capacity ⁷⁾	kW	404,0	450,9	492,7	532,1	585,0	626,0	676,7	757,0	805,0	
Input power ⁷⁾	kW	122,6	137,1	149,7	161,8	178,0	188,0	203,7	229,0	242,0	
COP ⁷⁾		3,30	3,29	3,29	3,29	3,29	3,34	3,32	3,31	3,32	
COP ⁸⁾		4,00	3,93	3,97	3,99	4,09	4,15	4,10	4,17	4,14	
SCOP ⁴⁾ / $\eta_{s,h}$ ⁴⁾	— / %	3,62 / 142	3,62 / 142	3,53 / 138	3,53 / 138	— / —	— / —	— / —	— / —	— / —	
Nominal water flow (in the evaporator)	m³/h	69,3	77,3	84,5	91,2	102,0	109,3	116,0	132,1	140,5	
Sound power ⁵⁾ / pressure at 10 m ⁶⁾	dB(A)	92 / 60	93 / 61	93 / 60	94 / 61	88 / 55	88 / 55	88 / 55	89 / 56	89 / 56	

Physical features

ECOi-W AQUA EVO 400-800 C - chiller			400	450 S	490 S	530 S	600	670	750 S	800 S
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	4580	5620	6680	6680	7760	7760	8900	8900
	Length S / EC S / HT	mm	5620	6680	7760	7760	8800	8800	11000	11000
Operating weight	STD / EC / HPF	kg	3028	3367	3783	4069	4317	4524	5536	5607
	S / EC S / HT	kg	3318	3656	4069	4369	4597	4789	6111	6183

Water connections (evaporator and condenser)

Type of water connections		Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Water inlet/outlet diameter	Inch	4	4	4	4	4	5	6	6	6

ECOi-W AQUA EVO 400-800 H - heat pump			400	450	490	530	580 S	620 S	670 S	750 S	800 S
Dimension	H x W	mm	2500 x 2175	2500 x 2175	2500 x 2175	2500 x 2175	2500 x 2175	2500 x 2175	2500 x 2175	2500 x 2175	2500 x 2175
	Length STD / EC / HPF	mm	5620	5620	6680	6680	7760	7760	8800	9950	9950
	Length S / EC S	mm	6680	6680	7760	7760	8800	9850	9850	12050	12050
Operating weight	STD / EC / HPF	kg	3769	3938	4412	4744	5214	5554	5691	6790	6985
	S / EC S	kg	4131	4293	4764	5101	5567	5919	6059	7497	7683

Water connections (evaporator)

Type of water connections		Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Water inlet/outlet diameter	Inch	4	4	4	4	4	5	5	6	6

1) Voltage 400 V +/- 10%. 2) According EN 14511-2013: 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 EN 14825. 5) Sound power 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 EN 14511-2013: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB. 8) According EN 14511-2013: warm water inlet/outlet temperature: 30/35 °C, outdoor ambient temperature 7 °C DB/6 °C WB.

Accessories supplied loose

P-376463	Sequencer for up to 4 chillers installation
P-347941	Remote ON / OFF control
P-364735	Remote keyboard panel
P-365581	Flow switch

Accessories supplied loose

P-473465	Pressure switch
P-348620	Water filter for sizes 400-530
P-348618	Water filter for sizes 580-750
P-362589	Water filter for size 800



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





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 - chiller			
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	STD fans	Pa	0
	High pressure fans	Pa	< 120

Accessories and options

Antifreeze electric heater for hydraulic manifolds
Anti-vibration spring dampers
Chiller grilles
Compressor acoustic box
Compressor star delta start
Compressor suction valve
E-coating treatment

Accessories supplied loose

P-347941	Remote ON / OFF
P-364735	Remote keyboard panel
P-365581	Flow switch

The range at a glance

- 1 version: C (chiller)
- 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

Finned tubes (Al/Cu)
Hydro kit 1P-SP/1P-HP/2P-SP/2PHP
Mechanical gauges kit (HP and LP manometers)
Power factor corrector capacitors
Several communication protocols
Variable pump

Accessories supplied loose

P-348620	Water filter for sizes 320-510
P-348618	Water filter for sizes 590-730
P-362589	Water filter for sizes 810-1260



Technical performance

	Voltage	V	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
	Frequency	Hz	50	50	50	50	50	50	50	50	50	50	50	50
Size			380	440	510	590	660	730	810	900	980	1060	1160	1260
ECOi-W SW-N EVO 380-1260 C STD / HT / HP - chiller		P-SWVN****CA	0380	0440	0510	0590	0660	0730	0810	0900	0980	1060	1160	1260
Nominal cooling capacity ¹⁾	kW		365,7	443,0	500,2	565,8	643,5	704,3	778,1	896,9	983,5	1047,4	1154,0	1240,5
Input power ¹⁾	kW		123,9	142,9	165,6	181,1	206,2	228,6	253,4	290,2	322,3	332,0	370,4	408,1
EER ¹⁾			2,95	3,10	3,02	3,12	3,12	3,08	3,07	3,09	3,05	3,15	3,12	3,04
EER ^{CONDITION B} [74%]			3,95	4,01	3,99	4,02	3,93	3,95	3,89	3,82	3,98	4,10	4,14	4,20
EER ^{CONDITION C} [47%]			4,66	4,81	4,81	5,03	4,76	4,66	4,72	4,68	4,72	5,10	5,06	5,02
EER ^{CONDITION D} [21%]			6,14	6,31	6,33	6,65	6,62	6,23	6,62	6,32	6,22	6,69	6,70	6,68
SEER ^{2) 3)}			4,53	4,64	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	182	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 - chiller			380	440	510	590	660	730	810	900	980	1060	1160	1260
Nominal cooling capacity ¹⁾	kW		362,8	441,8	498,2	563,1	640,0	702,5	775,9	893,1	980,9	1045,5	1150,6	1234,8
Input power ¹⁾	kW		126,1	144,9	168,0	184,0	209,3	231,5	256,4	294,7	326,4	335,5	375,0	416,8
EER ¹⁾			2,88	3,05	2,97	3,06	3,06	3,03	3,03	3,03	3,01	3,12	3,07	2,96
EER ^{CONDITION B} [74%]			3,90	4,03	3,99	4,00	3,96	3,97	4,01	3,84	4,18	4,15	4,22	4,31
EER ^{CONDITION C} [47%]			4,69	5,04	5,05	5,21	4,95	4,91	4,98	4,94	5,02	5,24	5,36	5,30
EER ^{CONDITION D} [21%]			6,44	6,82	6,75	6,92	6,93	6,64	6,71	6,60	6,55	7,00	7,24	7,04
SEER ^{2) 3)}			4,56	4,82	4,79	4,89	4,78	4,73	4,77	4,69	4,82	4,98	5,07	5,03
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 - chiller			380	440	510	590	660	730	810	900	980	1060	1160	1260
Dimension	Height	mm	2510	2510	2510	2510	2510	2510	2510	2510	2510	2510	2510	2510
	Height S	mm	2590	2590	2590	2590	2590	2590	2590	2590	2590	2590	2590	2590
	Width	mm	2192	2192	2192	2192	2192	2192	2192	2192	2192	2192	2192	2192
	Length	mm	4660	5712	5712	6764	7816	7816	8868	9920	10972	12024	13076	13076
Operating weight	STD / HT / HP	kg	3896	4259	4897	5241	5620	6207	6531	7326	7764	8491	8875	9074
	S	kg	3981	4352	4990	5323	5702	6293	6617	7412	7852	8579	8963	9162

1) Data refers to 7 °C leaving chilled water temperature and 35 °C condenser air temperature, according EN 14511-2013 standard. 2) ErP compliant: following COMMISSION REGULATION (EU) 2016/2281.

3) According EN 14825. 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, parallelepiped shape.

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



Water cooled chillers, heat pumps and condenserless units

Quality and comfort for all your projects with ECOi-W 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. This system is particularly well suited for applications such as office buildings, hotels, shopping centers and hospitals.

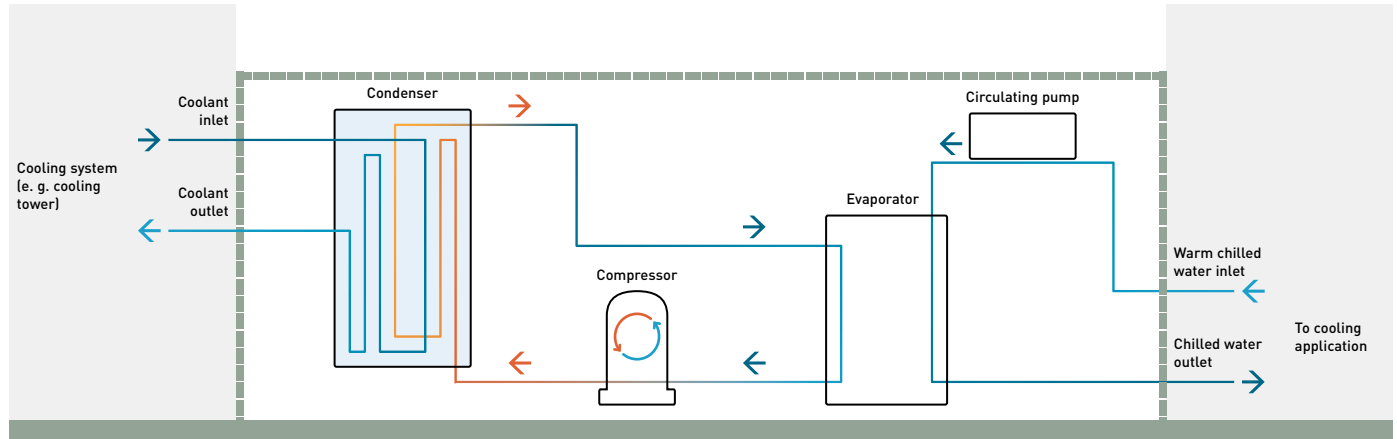


Water cooled chillers ECOi-W use water as the cooling medium to extract heat from the cooling circuit by cooling and condensing the refrigerant.

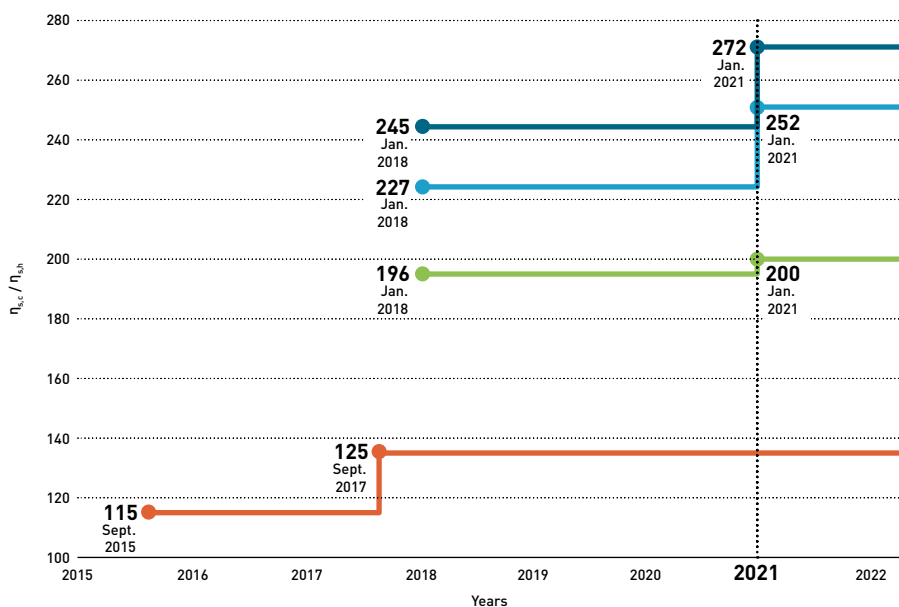
Advantages:

- 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 chiller ¹⁾

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

≤400 kW. Minimum η_{ah} to be Ecodesign compliant. COMMISSION REGULATION (EU) No 813/2013.	>400 kW and ≤1500 kW. Minimum η_{ah} to be Ecodesign compliant. COMMISSION REGULATION (EU) 2016/2281.	>1500 kW. Minimum η_{ah} to be Ecodesign compliant. COMMISSION REGULATION (EU) 2016/2281.
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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 (kW)	SEER	Sound power (dB(A))	Dimension L x H x W (mm)
P. 58	ECOi-W WQ C				
	20	21,2	5,58	65	821 x 1350 x 455
	25	26,2	5,60	67	821 x 1350 x 455
	30	31,1	5,45	67	821 x 1350 x 455
	35	34,8	5,50	68	821 x 1350 x 455
	40	39,2	5,35	68	821 x 1350 x 455
P. 58	45	46,6	5,83	70	821 x 1350 x 455
	50	50,9	6,13	70	1210 x 1500 x 850
	60	61,1	6,38	70	1210 x 1500 x 850
	75	77,3	5,95	72	1210 x 1500 x 850
	90	91,1	6,70	73	1210 x 1500 x 850
	120	118,4	5,90	78	1210 x 1500 x 850
	150	147,1	6,13	81	1210 x 1500 x 850
	170	170	6,08	81	1210 x 1500 x 850
P. 60	190	192,7	6,20	81	1210 x 1500 x 850
	524	154,3	5,55	81	2250 x 1845 x 850
	604	181,8	6,28	82	2250 x 1845 x 850
	704	208,9	6,10	85	2250 x 1845 x 850
	804	232,6	5,75	87	2250 x 1845 x 850
	904	265,8	6,10	89	2250 x 1845 x 850
	1004	295,6	6,10	90	2250 x 1845 x 850
	1104	338	6,20	90	2250 x 1845 x 850
	1204	379,2	6,25	90	2250 x 1845 x 850
	1404	421,1	6,43	92	2250 x 1845 x 850
P. 62	1604	459,8	6,47	94	2250 x 1845 x 850
	ECOi-W WSW-N EVO C				
	440	418,6	6,38	95	4250 x 1650 x 1350
	490	471,6	6,38	95	4250 x 1650 x 1350
	570	539,3	6,52	95	4210 x 1650 x 1350
	630	601,9	6,42	95	4210 x 1650 x 1350
	700	664,4	6,38	95	4180 x 1650 x 1350
	770	734,6	6,38	95	4180 x 1650 x 1350
	860	825,0	6,41	98	4510 x 1710 x 1520
	920	874,1	6,41	98	4510 x 1710 x 1520
	990	936,6	6,41	98	4600 x 1710 x 1520
	1070	1019,1	6,42	98	4650 x 1710 x 1520
	1130	1071,8	6,53	98	4650 x 1710 x 1520
	1220	1159,3	6,51	98	4650 x 1710 x 1520
	1280	1226,1	6,44	98	4650 x 1710 x 1520
	1400	1334,6	6,45	98	5350 x 1710 x 1520
	1550	1457,9	6,42	98	5350 x 1710 x 1520

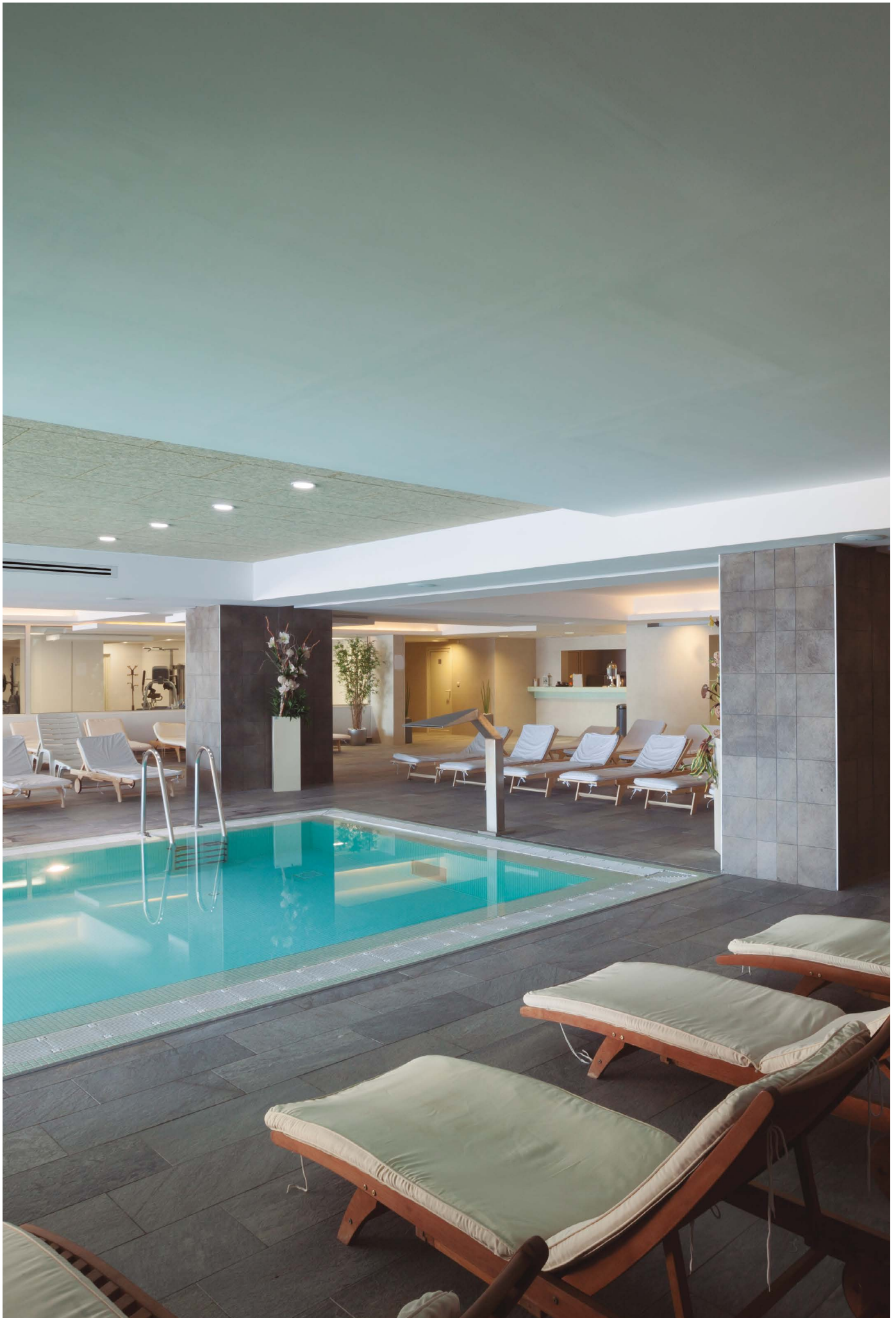
Quick selection guide - Water cooled heat pumps

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

Quick selection guide - Water cooled condenserless units

Page	Size	Cooling capacity (kW)	Sound power (dB(A))	Dimension LxWxH (mm)
ECOi-W WQ R	20	18,3	65	821 x 1350 x 455
	25	22,7	67	821 x 1350 x 455
	30	27,1	67	821 x 1350 x 455
	35	30,0	68	821 x 1350 x 455
	40	34,2	68	821 x 1350 x 455
	45	43,1	70	821 x 1350 x 455
P. 58				
	50	45,0	70	1210 x 1500 x 850
	60	53,4	70	1210 x 1500 x 850
	75	67,5	72	1210 x 1500 x 850
	90	80,1	73	1210 x 1500 x 850
	120	104,0	78	1210 x 1500 x 850
P. 58				
	150	128,0	81	1210 x 1500 x 850
	170	148,0	81	1210 x 1500 x 850
	190	168,0	81	1210 x 1500 x 850
	524	130,0	81	2250 x 1845 x 850
	604	155,3	82	2250 x 1845 x 850
P. 60				
	704	177,6	85	2250 x 1845 x 850
	804	196,5	87	2250 x 1845 x 850
	904	224,2	89	2250 x 1845 x 850
	1004	247,2	90	2250 x 1845 x 850
	1104	285,9	90	2250 x 1845 x 850
ECOi-W WSW-N EVO R				
	1204	316,1	90	2250 x 1845 x 850
	1404	368,0	92	2250 x 1845 x 850
	1604	397,0	94	2250 x 1845 x 850
	440	358,6	95	4590 x 1650 x 1450
	490	405,3	95	4590 x 1650 x 1450
P. 62				
	570	472,7	95	4630 x 1650 x 1450
	630	535,6	95	4630 x 1650 x 1450
	700	586,2	95	4320 x 1650 x 1450
	770	638,1	95	4560 x 1650 x 1450
	860	708,9	98	5110 x 1680 x 1520
P. 62				
	920	758,1	98	5110 x 1680 x 1520
	990	817,2	98	5100 x 1680 x 1520
	1070	886,2	98	5100 x 1680 x 1520
	1130	947,7	98	5000 x 1680 x 1520
	1220	1015,0	98	5000 x 1680 x 1520
P. 62				
	1280	1075,9	98	5000 x 1680 x 1520
	1400	1181,4	98	5300 x 1710 x 1580
	1550	1277,8	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.

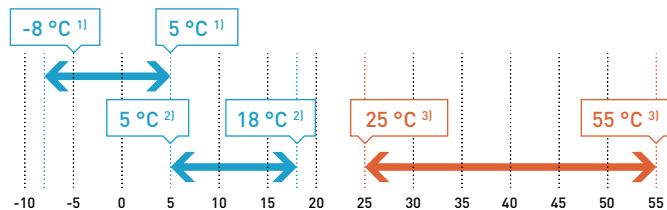
Heating capacity: 23,7 to 212,3 kW.



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 (ethylenic or propylenic): 40%.

ECOi-W WQ 20-190 C/H/R

Cooling	Leaving water temperature	ΔT	K	From 3 to 8
Heating ¹⁾	Leaving water temperature	ΔT	K	From 3 to 15

1) Only C/H types 20-190.

Accessories supplied loose

P-348089	Valves in - out for sizes 20-45
P-376463	Sequencer for up to 4 chillers installation
P-348682	Water temperature sensor for second set-point zone
P-347940	Remote ON / OFF control
P-348684	Remote keyboard panel
P-365581	Flow switch [operational only on the evaporator side]
P-473465	Pressure switch

The range at a glance

- 3 versions: C (chiller), 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

Compressor jackets
Desuperheater available for sizes 50-190
Hydrokit with 1 or 2 pumps for evaporator and condenser
Mechanical gauges kit
Modbus communication protocol
Power factor corrector capacitors
Soft starter

Accessories supplied loose

P-348612	Water filter for sizes 20-45
P-348615	Water filter for sizes 50-120
P-348619	Water filter for sizes 150-190
P-348144	3 way valve for DHW production - ON / OFF - DN 20 for sizes 20-45
P-348145	3 way valve for DHW production - ON / OFF - DN 20 for sizes 50-90
P-348143	3 way valve for DHW production - ON / OFF - DN 20 for sizes 120-190



Technical performance

Power supply	Voltage	V	400	400	400	400	400	400	400	400	400	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Size			20	25	30	35	40	45	50	60	75	90	120	150	170	190
ECOi-W WQ 20-190 C - chiller	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
η_{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
η_{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+++ to D	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	—	—	—	—	—	—
η_{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+++ to D	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	—	—	—	—	—	—
η_{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 - chiller / heat pump			20	25	30	35	40	45	50	60	75	90	120	150	170	190
Dimension	Height	mm	1350	1350	1350	1350	1350	1350	1500	1500	1500	1500	1500	1500	1500	1500
	Width	mm	455	455	455	455	455	455	850	850	850	850	850	850	850	850
	Length	mm	821	821	821	821	821	821	1210	1210	1210	1210	1210	1210	1210	1210
Operating weight	Chiller	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 connections (evaporator and condenser)																
Connection type			Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Inlet/outlet diameter			Inch	1 ½	1 ½	1 ½	1 ½	1 ½	2 ½	2 ½	2 ½	2 ½	2 ½	2 ½	2 ½	2 ½
ECOi-W WQ 20-190 R - condenserless unit			20	25	30	35	40	45	50	60	75	90	120	150	170	190
Dimension	Height	mm	1350	1350	1350	1350	1350	1350	1500	1500	1500	1500	1500	1500	1500	1500
	Width	mm	455	455	455	455	455	455	850	850	850	850	850	850	850	850
	Length	mm	821	821	821	821	821	821	1210	1210	1210	1210	1210	1210	1210	1210
Operating weight			kg	144	164	166	166	172	332	344	365	376	558	612	643	674
Water connections (evaporator)																
Connection type			Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Inlet/outlet diameter			Inch	1 ½	1 ½	1 ½	1 ½	1 ½	2 ½	2 ½	2 ½	2 ½	2 ½	2 ½	2 ½	2 ½
Remote condenser refrigerant connections																
Connection type			To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed
Inlet diameter			Inch	5/8	5/8	5/8	5/8	5/8	5/8	5/8	7/8	7/8	7/8	7/8	1 ½	1 ½
Outlet diameter			Inch	5/8	7/8	7/8	7/8	7/8	7/8	7/8	1 ½	1 ½	1 ¾	1 ¾	1 ¾	1 ¾

1) According to EN 14511 standard: evaporator EWT/LWT 12 °C/7 °C, condenser EWT/LWT 30 °C/35 °C. 2) According to EN 14825 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 EN 14511 standard: evaporator EWT/LWT 10 °C/7 °C, condenser EWT/LWT 40 °C/45 °C. 7) According to EN 14511 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 EN 14825 standard - low temperature application [35 °C]. 10) According to EN 14825 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 (chiller), H (heat pump) and R (condenserless unit)
- 10 sizes
- 2 acoustic options: STD (standard) and S (super low noise)

Advantages

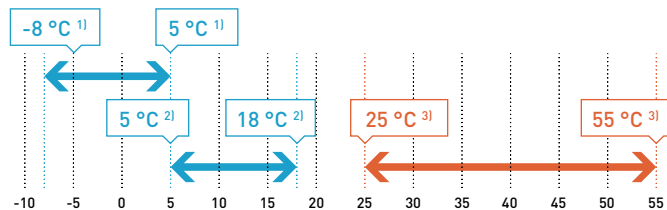
- High full load efficiency: EER up to 4,50, COP up to 3,90
- High seasonal performances: SEER up to 6,50
- Advanced electronic controller: auto-adaptive function to reduce water content in the piping system
- Condensing pressure control option: suitable for well application
- Wide range of Plug & Play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

Operating limits

To be confirmed with AC SELECT:

<https://acselect.panasonic.eu/>

Leaving water temperature.



1) With glycol + EEV.

2) Without glycol + EEV.

3) Only C/H types 20-190.

Note: maximum % glycol (ethylenic or propylenic): 40%.

Equipment

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

Accessories and options

- Desuperheater
- Hydrokit with 1 or 2 pumps for evaporator and condenser
- Mechanical gauges
- Modbus communication protocol
- Soft starter

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

Cooling	Leaving water temperature	ΔT	K	From 3 to 8
Heating	Leaving water temperature	ΔT	K	From 3 to 15

Accessories supplied loose

P-376463	Sequencer for up to 4 chillers installation
P-347941	Remote ON / OFF control
P-348684	Remote keyboard panel
P-365581	Flow switch (operational only on the evaporator side)

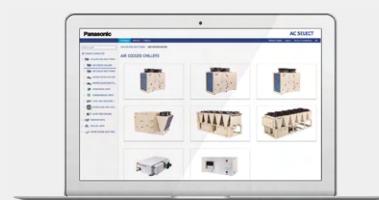
Accessories supplied loose

P-473465	Pressure switch
P-348619	Water filter for sizes 524-1204
P-348620	Water filter for sizes 1404-1604

AC SELECT.

Smart and user-friendly selection tool. Configure your air conditioning solution at required conditions:

<https://acselect.panasonic.eu/>





Technical performance

Power supply	Voltage	V	400	400	400	400	400	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50	50	50	50	50
Size			524	604	704	804	904	1004	1104	1204	1404	1604
ECOi-W WQ 524-1604 C - chiller	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		34,9	42,4	48,4	54,4	60,5	69,0	76,4	85,2	97,0	109,0
EER ¹⁾			4,42	4,28	4,31	4,27	4,39	4,28	4,42	4,45	4,34	4,19
SEER ^{2) 3)}			5,55	6,28	6,1	5,75	6,1	6,1	6,2	6,25	6,43	6,47
η _{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		43,6	43,6	49,4	55,5	61,0	67,7	77,7	86,9	97,0	109,0
EER ¹⁾			4,04	4,04	4,14	4,06	4,31	4,30	4,27	4,26	4,34	4,19
SEER ²⁾			4,65	4,92	4,92	4,68	5,15	5,1	5,27	5,3	6,43	6,47
η _{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	—	—
η _{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	—	—
η _{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 - chiller / 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)}
			2250	2250	2250	2250	2250	2250	2250	2250	2250	2250
	Length	mm	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250
Operating weight - chiller	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 connections

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 EN 14511 standard: evaporator EWT/LWT 12 °C/7 °C, condenser EWT/LWT 30 °C/35 °C. 2) According to EN 14825 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 EN 14511 standard: evaporator EWT/LWT 10 °C/7 °C, condenser EWT/LWT 40 °C/45 °C. 7) According to EN 14511 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 EN 14825 standard - low temperature application (35 °C). 10) According to EN 14825 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 - chiller				
Evaporator	Leaving water temperature	Water	°C	From 5 to 15
		Water + glycol	°C	From 0 to 5
		Brine	°C	From -8 to 0
		ΔT	K	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	K	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	K	From 3 to 7
Condenser	Condensing temperature		°C	From 30 to 63

Accessories supplied loose	
P-376463	Sequencer for up to 4 chillers installation
P-347941	Remote ON / OFF control
P-364735	Remote keyboard panel
P-365581	Flow switch

The range at a glance

- 3 versions: C (chiller), H (heat pump) 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 or 2 refrigerant circuit(s)
- Twin-screw compressors
- Shell and tube evaporator and condenser
- Electronic expansion valve
- Compressor acoustic box (standard for S version)
- Phase sequence control

Accessories and options

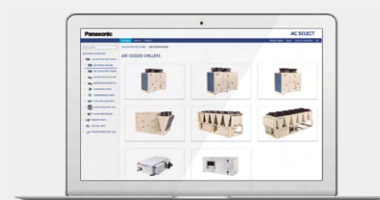
Automatic circuit breaker
Compressor stepless control
Mechanical gauges
Power factor corrector capacitors
Several communication protocols
Soft starter

Accessories supplied loose

P-348620	Water filter for sizes 440-490
P-348618	Water filter for sizes 570-770
P-362589	Water filter for sizes 860-1550

AC SELECT.

Smart and user-friendly selection tool. Configure your air conditioning solution at required conditions:
<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 - chiller		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 - chiller	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 ²⁾	dB(A)	98 / 89	98 / 89	98 / 89	98 / 89	98 / 89	98 / 89	98 / 89	98 / 89	98 / 89
Sound pressure at 1 m STD / S ³⁾	dB(A)	79 / 70	79 / 70	79 / 70	79 / 70	79 / 70	79 / 70	79 / 70	79 / 70	79 / 70
ECOi-W WSW-N EVO 440-770 H - heat pump	P-WSWVN0440HA	P-WSWVN0490HA	P-WSWVN0570HA	P-WSWVN0630HA	P-WSWVN0700HA	P-WSWVN0770HA				
Cooling capacity ¹⁾	kW	419	479	547	612	673	731			
Input power ¹⁾	kW	86,5	98	115	132	147	156			
EER ¹⁾		4,85	4,89	4,75	4,64	4,58	4,69			
Cooling capacity ⁵⁾	kW	365,9	418,9	483,2	541	595,6	646,6			
Input power ⁵⁾	kW	105,2	118,8	141,3	162,1	171,2	191,3			
EER ⁵⁾		3,48	3,53	3,42	3,34	3,48	3,38			
SEER ²⁾		6,53	6,38	6,4	6,38	6,45	6,6			
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 EN 14511 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 EN 14825 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 EN 14511 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 - chiller			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 connections											
Connection type	Evaporator		Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®			
Inlet/outlet diameter		Inch	6	6	6	6	8	8			
Connection type	Condenser		Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded			
Inlet/outlet diameter		Inch	4	4	5	5	5	5			
ECOi-W WSW-N EVO 860-1550 C - chiller			860	920	990	1070	1130	1220	1280	1400	1550
Dimension	Height	mm	1710	1710	1710	1710	1710	1710	1710	1710	1710
	Height S	mm	1780	1780	1780	1780	1780	1780	1780	1780	1780
	Width	mm	1520	1520	1520	1520	1520	1520	1520	1520	1520
	Length	mm	4510	4510	4600	4650	4650	4650	4650	5350	5350
	Length S	mm	4510	4510	4690	4690	4690	4690	4690	5400	5400
Operating weight	STD	kg	5000	5010	5642	5818	6012	6077	6124	6698	6752
	S	kg	5388	5398	6030	6206	6400	6465	6512	7086	7140
Water connections											
Connection type	Evaporator		Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Inlet/outlet diameter		Inch	8	8	10	10	10	10	10	10	10
Connection type	Condenser		Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Inlet/outlet diameter	Condenser	Inch	4 / 4	4 / 4	5 / 5	5 / 5	5 / 5	5 / 5	5 / 5	5 / 5	5 / 5
ECOi-W WSW-N EVO 440-770 H - heat pump			440	490	570	630	700	770			
Dimension	Height	mm	1650	1650	1650	1650	1650	1650			
	Height S	mm	1750	1750	1750	1750	1750	1750			
	Width	mm	1450	1450	1450	1450	1450	1450			
	Length	mm	4590	4590	4630	4630	4320	4560			
Operating weight	STD	kg	3055	3186	3277	3197	4027	3824			
	S	kg	3249	3380	3471	3491	4221	4017			
Water connections											
Connection type	Evaporator		Victaulic®	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®	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
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
Operating weight	STD	kg	5818	5841	6119	6545	6768	6807	6844	7991	8071
	S	kg	6205	6229	6506	6932	7155	7194	7232	8378	8458
Water connections											
Connection type	Evaporator		Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Inlet/outlet diameter		Inch	8	8	10	10	10	10	10	10	10
Connection type	Condenser		Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Inlet/outlet diameter		Inch	4 / 4	4 / 4	4 / 4	4 / 5	5 / 5	5 / 5	5 / 5	5 / 5	5 / 5



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 connections (evaporator)											
Connection type			Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®			
Inlet/outlet diameter		Inch	6	6	6	6	8	8			
Remote condenser refrigerant connections											
Connection type			To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed			
Inlet diameter circuit 1		Inch	1 5⁄8	1 5⁄8	2 1⁄8	2 1⁄8	2 1⁄8	2 1⁄8			
Outlet diameter circuit 1		Inch	3 1⁄8	3 1⁄8	3 5⁄8	3 5⁄8	4 1⁄8	4 1⁄8			
ECOi-W WSW-N EVO 860-1550 R - condenserless unit			860	920	990	1070	1130	1220	1280	1400	1550
Dimension	Height	mm	1710	1710	1710	1710	1710	1710	1710	1710	1710
	Height S	mm	1770	1770	1770	1770	1770	1770	1770	1770	1770
	Width	mm	1520	1520	1520	1520	1520	1520	1520	1520	1520
	Length	mm	4400	4400	4600	4650	4650	4650	4650	5350	5350
	Length S	mm	4650	4650	4650	4650	4650	4650	4650	5400	5400
Operating weight	STD	kg	4804	4814	4998	5071	5131	5170	5190	5596	5676
	S	kg	5191	5201	5385	5458	5518	5557	5577	5983	6063
Water connections (evaporator)											
Connection type			Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®	Victaulic®
Inlet/outlet diameter		Inch	8	8	10	10	10	10	10	10	10
Remote condenser refrigerant connections											
Connection type			To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed	To be brazed
Inlet diameter circuit 1		Inch	1 5⁄8	1 5⁄8	1 5⁄8	2 1⁄8	2 1⁄8	2 1⁄8	2 1⁄8	2 1⁄8	2 1⁄8
Outlet diameter circuit 1		Inch	3 1⁄8	3 1⁄8	3 1⁄8	3 1⁄8	3 1⁄8	3 1⁄8	3 1⁄8	4 1⁄8	4 1⁄8
Inlet diameter circuit 2		Inch	1 5⁄8	1 5⁄8	1 5⁄8	2 1⁄8	2 1⁄8	2 1⁄8	2 1⁄8	2 1⁄8	2 1⁄8
Outlet diameter circuit 2		Inch	3 1⁄8	3 1⁄8	3 1⁄8	3 1⁄8	3 1⁄8	3 1⁄8	3 1⁄8	4 1⁄8	4 1⁄8

Water source heat pumps

One building, different needs!

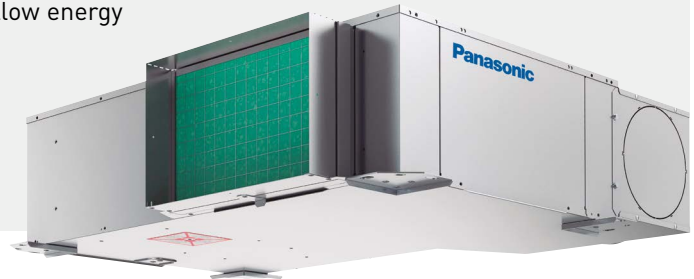
ECOi-LOOP water source heat pumps are ideal for best in class hotels, offices or shopping centers. This solution offers improved comfort by having several different indoor climates inside a building, while maintaining the energy through an internal closed water loop.



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

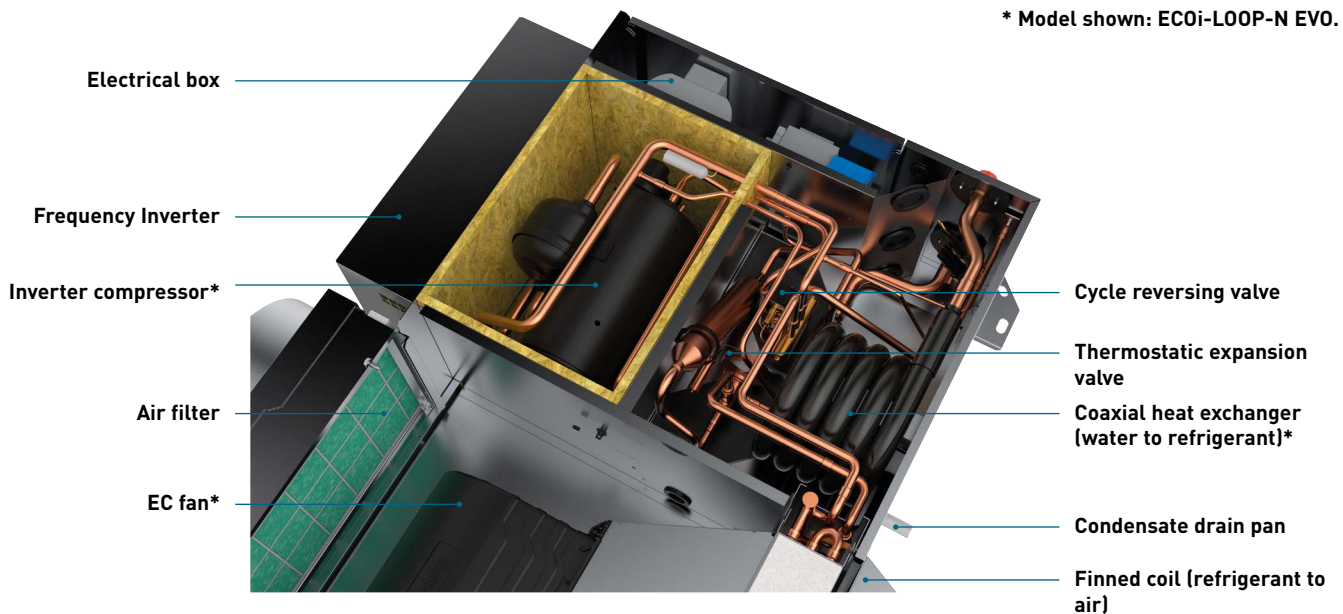
The water loop system enables distributed cooling and heating production at different temperatures with a single water circuit.

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⁾ (m³/h)	Pressure (Pa)	Fan	Dimension LxWxH (mm)
P. 70		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. 72		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. 74		25,8 ³⁾	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.

Page	Size	Cooling and heating capacity (kW)	NR sound levels (at MS)	Nominal air flow ¹⁾ (m³/h)	Pressure (Pa)	Fan	Dimension LxWxH (mm)
P. 76	ECOi-LOOP HRW H · R407C						
	19		37	1250	>50	AC	900 x 600 x 439
	27		34	1190	>50	AC	1050 x 600 x 460
	27 HE		34	1180	>50	AC	1050 x 660 x 460
	30		35	1490	>100	AC	1050 x 660 x 460
	30 HE		35	1500	>100	AC	1050 x 660 x 460
	36		37	1580	>100	AC	1050 x 660 x 460
	36 HE		37	1580	>100	AC	1250 x 705 x 513
	42		40	2040	>100	AC	1250 x 705 x 513
	42 HE		40	2040	>100	AC	1250 x 705 x 513
	48		43	2750	>100	AC	1250 x 705 x 513
	60		43	2840	>100	AC	1250 x 705 x 513
	60 HE		43	2840	>100	AC	1250 x 705 x 583
	72		39	3570	>100	AC	1250 x 705 x 513
	72 HE		39	3800	>100	AC	1680 x 955 x 770
	96		54	4700	>100	AC	1680 x 955 x 770
	96 HE		54	4700	>100	AC	1680 x 955 x 770
	120		53	5600	>200	AC	1680 x 955 x 770

**ECOi-LOOP FS H · R407C****P. 78**

12		40	510	0	AC/EC	1138 x 251 x 821 ²⁾
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ECOi-LOOP-N FS H · R513A**P. 80**

7		34	340	0	AC/EC	1138 x 260 x 821 ²⁾
9		36	400	0	AC/EC	1138 x 260 x 821 ²⁾

1) At high speed. 2) Standard unit with cabinet and feet.



ECOi-LOOP 15-30 C/H · R410A

Water source heat pumps cooling only and reversible.

Cooling capacity: 1,5 to 2,9 kW.

Heating capacity: 1,9 to 3,7 kW.



Optional controller.
RCS remote control.



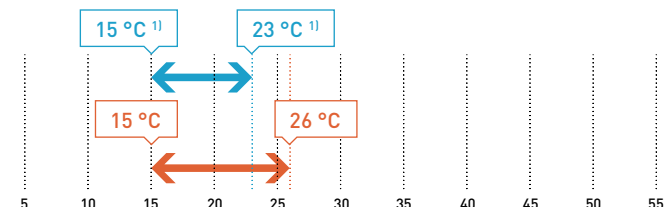
Optional controller.
SRC - mini BMS controller.



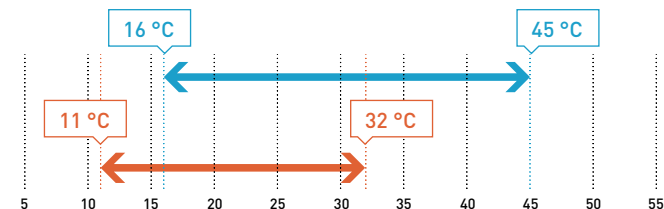
SEE PAGE 82 FOR MORE DETAILS ABOUT WATER SOURCE HEAT PUMPS CONTROL SYSTEMS

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 (reversible)
- 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

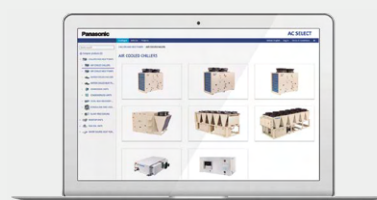
- Very high performances: EER up to 5,05 and COP up to 5,70
- Low energy consumption EC fan
- In-line or perpendicular air flow
- Increased robustness: coaxial heat exchanger
- Easy access to the internal components: large electrical panel and filter accessible from 3 sides
- 100% factory tested

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 selection tool. Configure your air conditioning solution at required conditions:
<https://acselect.panasonic.eu/>





Technical features

ECOi-LOOP 15-30 C - cooling only			P-LPE015CA	P-LPE020CA	P-LPE030CA
ECOi-LOOP 15-30 H - reversible			P-LPE015HA	P-LPE020HA	P-LPE030HA
Total cooling capacity ¹⁾	W		1507	2151	2902
Sensible cooling capacity ¹⁾	W		1371	1733	2355
EER			4,51	5,05	4,25
Heating capacity ²⁾	W		1934	2510	3680
COP			5,49	5,70	4,97
Ventilation					
Number of fans				1	
Nominal air flow	m³/h		435	465	525
Motor power	W		24	38	53
Air filter	Number / efficiency		1 / Basic or G3M1	1 / Basic or G3M1	1 / Basic or G3M1
Hydraulic circuit					
Water heat exchanger	Number / type		1 / Coaxial	1 / Coaxial	1 / Coaxial
Maximum water pressure	bar		10	10	10
Nominal water flow	l/h		317	444	617
WPD at nominal water flow	kPa		8	12	18
Connections - inlet/outlet (Ø)	Inch		½ Male gas	½ Male gas	½ Male gas
Condensate outlet - external (Ø)	mm		16	16	16
Refrigerant circuit					
Number of refrigerant circuits			1	1	1
Compressor type			Rotary	Rotary	Rotary
Load	g		415	565	565
Electrical data					
Power supply	Voltage	V	230	230	230
	Phase		Single phase	Single phase	Single phase
	Frequency	Hz	50 ±10%	50 ±10%	50 ±10%
Input power ³⁾	Cooling	W	365	471	742
	Heating	W	389	491	806
Electric heating coil ⁴⁾	Number / capacity	- / W	1 / 600+600	1 / 800+800	1 / 1000+1000
	Input power	W	1200	1600	2000
Sound levels - without acoustic options					
Sound power - radiated	Lo / Med / Hi	dB(A)	41,9 / 43,1 / 44,4	42,7 / 44,5 / 46,5	45 / 46,8 / 48,9
Sound power - discharge	Lo / Med / Hi	dB(A)	45,6 / 49,1 / 53	49,1 / 53,6 / 58,3	51,7 / 57,2 / 61,9
Sound pressure ⁵⁾	Lo / Med / Hi	dB(A)	27,1 / 30 / 33,5	30 / 34,1 / 38,4	32,7 / 37,6 / 42
NR ⁵⁾	Lo / Med / Hi		22,4 / 25,7 / 29,4	25,8 / 30,1 / 34,4	28,6 / 33,6 / 37,9
Sound levels - with air outlet silencer and insulation around the fan					
Sound power - radiated	Lo / Med / Hi	dB(A)	42,3 / 43,2 / 44,5	42,7 / 44,4 / 46,5	44,4 / 46,6 / 48,9
Sound power - discharge	Lo / Med / Hi	dB(A)	32,2 / 35,2 / 38,5	34,7 / 38,5 / 42,5	36,1 / 40,6 / 44,6
Sound pressure ⁵⁾	Lo / Med / Hi	dB(A)	23,2 / 25 / 27,3	24,8 / 27,7 / 31	27 / 30,6 / 34
NR ⁵⁾	Lo / Med / Hi		18,8 / 20,4 / 22,7	20,1 / 23 / 26,4	23,2 / 25,9 / 29,5
Dimension - 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

Modbus RTU protocol-standard. Controller with BACnet MSTP - optional (BACnet IP, LON and Modbus TCP/IP available upon request)

Drain outlet

Drain pump

Accessories and options

Electric heaters

Flow switch control

Insulation around the fan

Many air inlet/outlet and water connection configurations

Pressostatic valve (cooling only)

Room temperature sensor

Accessories supplied loose

P-393446 RCS kit remote control with thermostat (POL822)**P-375281** SRC - mini BMS controller (only with Modbus RTU)

Accessories supplied loose

P-372061 Kit remote keyboard panelHIGH
EER
5,05HIGH
COP
5,70



ECOi-LOOP-N 70-135 H · R513A

Water source heat pumps reversible.

Cooling capacity: 7,0 to 13,3 kW.

Heating capacity: 8,1 to 14,6 kW.



Optional controller.
RCS remote control.



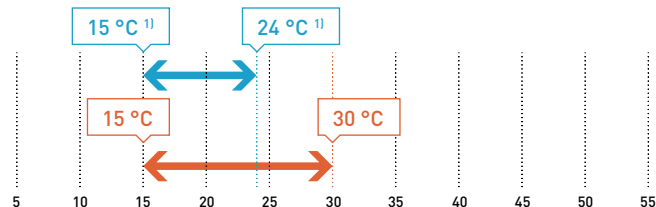
Optional controller.
SRC - mini BMS controller.



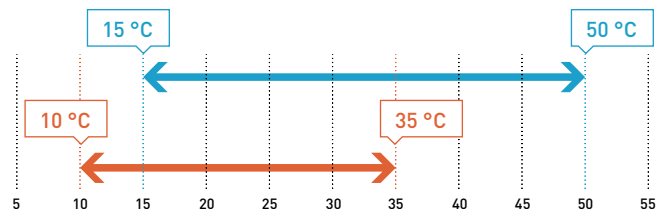
SEE PAGE 82 FOR MORE DETAILS ABOUT WATER SOURCE HEAT PUMPS CONTROL SYSTEMS

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 (reversible)
- 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

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<https://acselect.panasonic.eu/>





Technical features

ECOi-LOOP-N 70-135 H - reversible			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 EN 14511			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 EN 14511			4,58	4,35	4,37	4,07	4,49	4,22
Ventilation								
EC voltage	V		3,80	5,50	7,80	8,80	7,60	8,60
Air flow	Min (LS)	m³/h	1123	1407	1837	2001	2157	2390
	Med (MS)	m³/h	1425	1786	2331	2539	2730	3034
	Max (nominal) (HS)	m³/h	1727	2165	2826	3078	3309	3677
Nominal 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 Male gas	1 Male gas	1 Male gas	1 Male gas	1 Male gas	1 Male gas
Condensate outlet (Ø)	mm		19	19	19	19	19	19
Refrigerant circuit								
Number of refrigerant circuits			1	1	1	1	1	1
Compressor type			Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Load	g		1040	1165	1108	1116	1355	1363
Electrical data								
Power supply	Voltage	V	400	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50
Maximum current without heating	A		12,8	13,4	15,6	18,2	17,3	18,1
Starting current	A		53,5	53,5	53,5	78,5	71,4	78,4
Sound levels								
Sound power Lw - radiated	Lo / Med / Hi	dB(A)	60,6/65/65,4	59,5/65,3/66,1	61/66,9/69,4	62,1/67,7/10,4	58/62,6/67,4	58,8/63,9/68,8
Sound power Lw - discharge	Lo / Med / Hi	dB(A)	53,8/62,9/71	62,8/69,5/73,6	68,4/72,7/77,1	68,8/72,6/77,2	64,5/69,3/73,5	65,7/71,2/75,6
Sound power Lw	Lo / Med / Hi	dB(A)	63,7/68,1/72,6	65,5/71,4/74,7	69,6/74,1/78,1	70,1/74,3/78,5	66,5/70,9/75,1	67,5/72,7/77
Sound pressure Lp ⁴⁾	Lo / Med / Hi	dB(A)	49/54,3/56,2	49,5/54,3/56,4	55,3/58,8/62,6	54,4/57,6/61,9	52,5/56,8/60,5	52,7/58,5/62,1
NR ⁴⁾	Lo / Med / Hi		45,9/51,5/51,2	45,9/49,9/50,9	52,3/55,5/58,5	52,3/54,4/59,1	50,7/55,2/58,4	50,7/56,9/60,3
Dimension - without air inlet/outlet options								
Length	mm		1142	1142	1333	1333	1333	1333
Width	mm		762	762	818	818	818	818
Height	mm		516	516	580	580	580	580
Weight								
Operating weight	kg		134	134	153	153	160	160

1) Nominal cooling capacities based on entering air temperature of 27 °C DB, 19 °C WB with entering water temperature of 30 °C. 2) Input power at nominal conditions (compressor + fan at high speed).

3) Nominal heating capacities based on entering air temperature of 20 °C DB, 15 °C WB with entering water temperature of 20 °C. 4) Informative data, considering an hypothetical sound attenuation of the room and installation of 21 dB(A). In-line configuration with filter.

Accessories and options

G2M1 filter or G3 filter

Circuit breaker

Modbus RTU protocol-standard. Controller with BACnet MSTP - optional (BACnet IP, LON and Modbus TCP/IP available upon request)

Drain pump

Accessories and options

Electric heaters

Flow switch control

General default report

Many air configurations

Room temperature sensor

Accessories supplied loose

P-393446 RCS kit remote control with thermostat (POL822)

P-375281 SRC - mini BMS controller (only with Modbus RTU)

Accessories supplied loose

P-372061 Kit remote keyboard panel





ECOi-LOOP-N EVO C/H · R513A

Water source heat pumps cooling only and reversible.

Cooling capacity: 1,7 to 2,9 kW.

Heating capacity: 2,0 to 3,8 kW.



Optional controller.
RCS remote control.



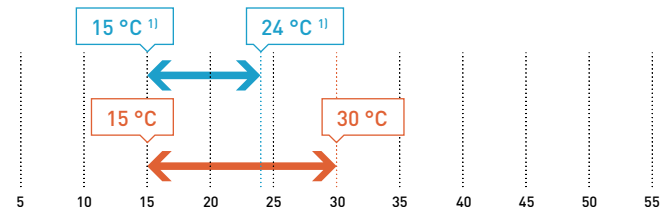
Optional controller.
SRC - mini BMS controller.



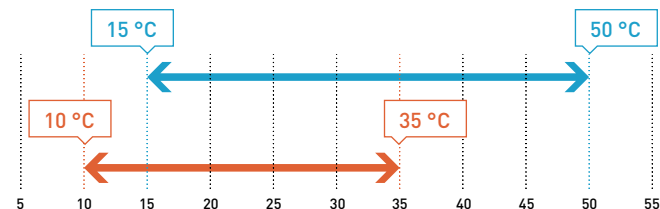
SEE PAGE 82 FOR MORE DETAILS ABOUT WATER SOURCE HEAT PUMPS CONTROL SYSTEMS

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 (reversible) 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 aerualic 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-LPVN030CA
ECOi-LOOP-N EVO H - reversible			P-LPVN030HA
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 Male gas
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
Dimension - 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
Modbus RTU protocol-standard. Controller with BACnet MSTP - optional (BACnet IP, LON and Modbus TCP/IP available upon request)
Drain outlet
Drain pump

Accessories supplied loose

P-393446	RCS kit remote control with thermostat [POL822]
P-375281	SRC - mini BMS controller (only with Modbus RTU)

Accessories and options

Electric heaters
Flow switch control
General default report
Insulation around the fan
Many air inlet/outlet and water connection configurations
Room temperature sensor

Accessories supplied loose

P-372061	Kit remote keyboard panel
-----------------	---------------------------



HIGH EER
4,25

HIGH COP
4,53





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

Water source heat pumps reversible.

Cooling capacity: 5,3 to 30,0 kW.

Heating capacity: 5,8 to 38,1 kW.



Optional controller.
RCS remote control.



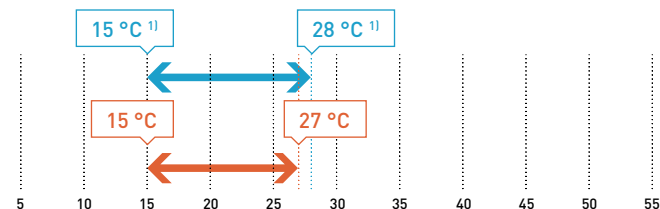
Optional controller.
SRC - mini BMS controller.



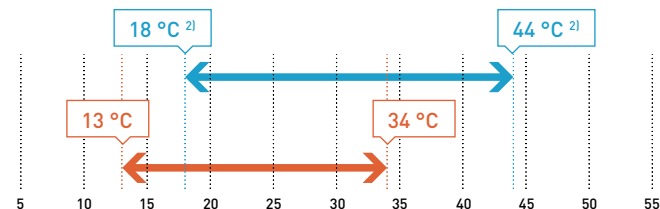
SEE PAGE 82 FOR MORE DETAILS ABOUT WATER SOURCE HEAT PUMPS CONTROL SYSTEMS

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

- 1 version: H (reversible)
- 10 sizes
- Horizontal 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

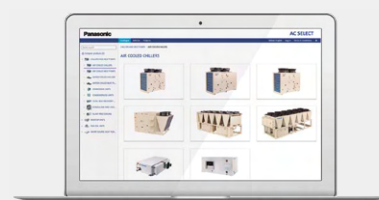
Equipment

- 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 reversible units.

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Technical features

ECOi-LOOP HRW H - reversible	P-LPHM***HA*** 1)	019	027	—	030	—	036	—	042	—	048	060	—	072	—	096	—	120
ECOi-LOOP HRWE H - reversible	P-LPHEM***HA*** 1)	—	—	027	—	030	—	036	—	042	—	—	060	—	072	—	096	—
Total cooling capacity 2)	W	5278	7419	7320	8691	8710	10138	11060	11366	12500	12965	14344	16700	17174	20600	21743	24500	29951
Sensible cooling capacity 2)	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 3)	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 4)	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
Dimension																		
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) *** HWA: units without RCS, HRA: units with RCS, HBA: units with RCS + EH, HHA: units with EH. 2) Nominal cooling capacities based on: entering air temperature of 27 °C DB, 19 °C WB with entering water temperature of 30 °C. 3) Nominal heating capacities based on: entering air temperature of 20 °C DB, 15 °C WB with entering water temperature of 20 °C. 4) Absorbed power (compressor + fan) at nominal conditions. Check data and configuration on the technical documentation.

Accessories and options

Circuit breaker

Modbus RTU protocol-standard. Controller with BACnet MSTP - optional (BACnet IP, LON and Modbus TCP/IP available upon request)

EH - Electric heaters

General alarm dry contact

Accessories and options

Main switch

Motorized water valve

Room sensor

G3 filter [available upon request]

Accessories supplied loose

P-393446 RCS kit remote control with thermostat (POL822)**P-375281** SRC - mini BMS controller (only with Modbus RTU)

Accessories supplied loose

P-372061 Kit remote keyboard panelHIGH
EER
4,74HIGH
COP
4,46



ECOi-LOOP FS H · R407C

Water source heat pumps reversible.

Cooling capacity: 1,9 to 2,7 kW.

Heating capacity: 2,4 to 3,2 kW.



Optional controller.
RCS remote control.



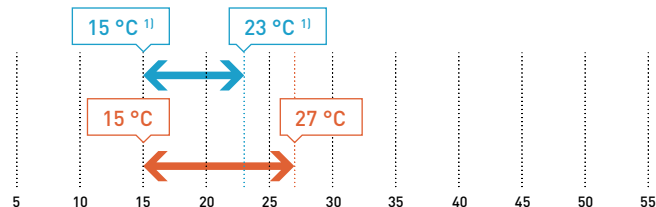
Optional controller.
SRC - mini BMS controller.



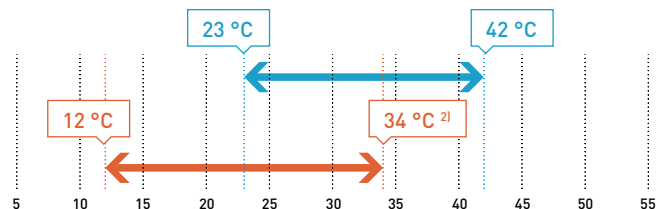
SEE PAGE 82 FOR MORE DETAILS ABOUT WATER SOURCE HEAT PUMPS CONTROL SYSTEMS

Operating limits

Air inlet temperature.



Water inlet temperature.



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

The range at a glance

- 1 version: H (reversible)
- 1 size
- 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 3,25 and COP up to 3,49
- Nominal air flow from 400 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

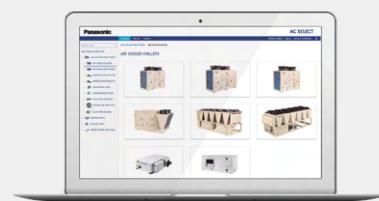
- Low sound levels: acoustic insulation between ventilation and compressor compartments
- Design and elaborate finish cabinet enabling harmonious integration (RAL9010)
- Low energy consumption EC fan (option)
- Highly customisable. Many air routing configurations and selection of hydraulic service side
- 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

AC SELECT.

Smart and user-friendly selection tool. Configure your air conditioning solution at required conditions:
<https://acselect.panasonic.eu/>





Technical features

ECOi-LOOP FS H - reversible			P-LPF5M12HA
Total cooling capacity ¹⁾	W		2743
Sensible cooling capacity ¹⁾	W		2340
EER			3,25
Heating capacity ²⁾	W		3156
COP			3,49
Ventilation			
Number of fans			1
Air flow	Lo / Med / Hi	m ³ /h	400 / 460 / 510
Motor power (with AC / EC fan)		W	75 / 40
Air filter	Number / efficiency		1 / G2
Hydraulic circuit			
Number of plate heat exchanger			1
Maximum water pressure	bar		10
Nominal water flow	l/h		616
WPD at nominal water flow	kPa		12
Connections - inlet/outlet [ø]	Inch		ISO G ½ INT
Condensate outlet - external [Ø]	mm		15 x 20
Refrigerant circuit			
Number of refrigerant circuits			1
Compressor type			Rotary
Load	g		750
Electrical data			
Power supply	Voltage	V	230
	Phase		Single phase
	Frequency	Hz	50 ±10%
Input power - AC fan ³⁾	Cooling	W	892
	Heating	W	954
Sound levels - AC fan			
Sound pressure ⁴⁾	Lo / Med / Hi	dB(A)	43 / 45 / 46
NR ⁴⁾	Lo / Med / Hi		38 / 40 / 41
Dimension			
Standard with cabinet (VC)	LxWxH	mm	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]
Standard without cabinet (VN)	LxWxH	mm	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]
Weight			
Without cabinet / with cabinet - operating		kg	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

Modbus RTU protocol-standard. Controller with BACnet MSTP - optional (BACnet IP, LON and Modbus TCP/IP available upon request)

EC fan

Feet

Accessories and options

General remote alarm contact

Low noise

Many electric, hydraulic and aerualic configurations

Thermal overload

Accessories supplied loose

P-393446 RCS kit remote control with thermostat (POL822)

P-375281 SRC - mini BMS controller (only with Modbus RTU)

P-372061 Kit remote keyboard panel

Accessories supplied loose

P-372734 Kit front air intake cabinet

P-372642 Kit front air intake cabinet (low height)





ECOi-LOOP-N FS H · R513A

Water source heat pumps reversible.

Cooling capacity: 1,7 to 2,0 kW.

Heating capacity: 1,8 to 2,6 kW.



Optional controller.
RCS remote control.



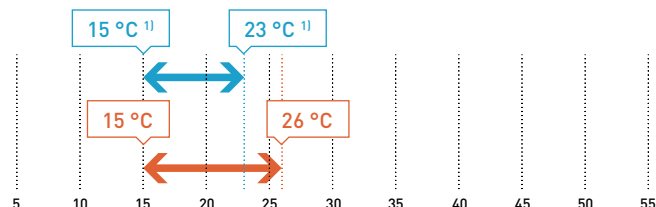
Optional controller.
SRC - mini BMS controller.



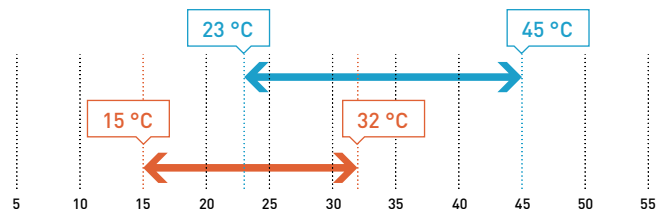
SEE PAGE 82 FOR MORE DETAILS ABOUT WATER SOURCE HEAT PUMPS CONTROL SYSTEMS

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 (reversible)
- 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

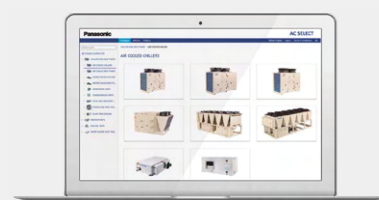
- Low sound levels: acoustic insulation between ventilation and compressor compartments
- Design and Elaborate finish cabinet enabling harmonious integration (RAL9010)
- Low energy consumption EC fan (option)
- Highly customisable. Many air routing configurations and selection of hydraulic service side
- Easy access to components through a removable front panel
- Brazed stainless steel plate heat exchanger for improved efficiency (coaxial exchanger upon request)
- 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 selection tool. Configure your air conditioning solution at required conditions:
<https://acselect.panasonic.eu/>





Technical features

ECOi-LOOP-N FS H - reversible			P-LPFSN07HA	P-LPFSN09HA
Total cooling capacity ¹⁾	W		1690	2040
Sensible cooling capacity ¹⁾	W		1410	1600
Input power (with EC / AC fan) ²⁾	W		345 / 355	480 / 487
EER according to EN 14511 (with EC / AC fan)			4,9 / 4,75	4,25 / 4,19
Heating capacity ³⁾	W		1790	2630
Input power (with EC / AC fan) ²⁾	W		395 / 405	610 / 617
COP according to EN 14511 (with EC / AC fan)			4,6 / 4,41	4,31 / 4,26
Ventilation				
Air flow	Min	m³/h	250	340
	Nominal	m³/h	340	400
	Max	m³/h	400	460
Nominal input power (with EC / AC fan)	W		15 / 25	20 / 27
Motor power (with EC / AC fan)	W		40 / 75	40 / 75
Air filter	Number / efficiency		1 / G2	1 / G2
Hydraulic circuit				
Number of plate 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
Dimension				
Standard with cabinet (VC)	L x W x H	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)	L x W x H	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)	L x W x H	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)	L x W x H	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

Modbus RTU protocol-standard. Controller with BACnet MSTP - optional (BACnet IP, LON and Modbus TCP/IP available upon request)

EC fan

Feet

Accessories and options

General remote alarm contact

Low noise

Many electric, hydraulic and aeraulic configurations

Thermal overload

Accessories supplied loose

P-393446 RCS kit remote control with thermostat (POL822)

P-375281 SRC - mini BMS controller (only with Modbus RTU)

P-372061 Kit remote keyboard panel

Accessories supplied loose

P-372734 Kit front air intake cabinet

P-372642 Kit front air intake cabinet (low height)



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.

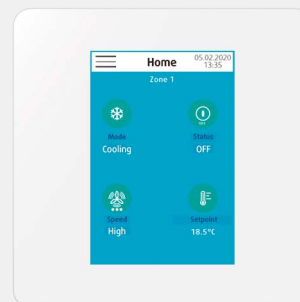
With the SRC you can create up to 15 zones including several Panasonic units belonging to the same product lines.

- 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 or BACnet IP upon request

Operating mode:

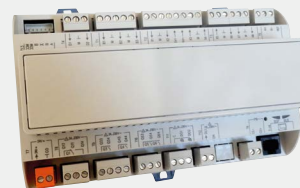
- OFF / Comfort / ECO

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





Fan coil units

Panasonic offers you a complete range of fan coil units. Stylish, premium units for residential projects with a sophisticated, compact design and customizable, flexible units for commercial applications with a wide range of options and accessories available.



Fan coil units	→82
Quick selection guide - Fan coil units	→ 83
Fan coil wall unit - FK1	→ 85
Fan coil comfort AC fan	→ 86
Fan coil comfort EC fan	→ 88
Fan coil cassette AC fan	→ 90
Fan coil cassette EC fan	→ 92
Fan coil wall DC fan – FK1	→ 94
Fan coil wall AC fan	→ 96
Fan coil duct EC fan	→98
Fan coil high static duct AC fan	→ 100
Fan coil high static duct EC fan	→ 102
Fan coil controllers	→ 104

Quick selection guide - Fan coil units

Page	Size	Cooling and heating capacity ¹⁾ (kW)	Air flow ¹⁾ (m³/h)	Pressure (Pa)	Fan	Dimension ²⁾ H x W x D (mm)
Fan coil comfort AC/EC P. 86 	10		417	—	AC/EC	477 x 766 x 225
	20		413	—	AC/EC	477 x 766 x 225
	30		345	—	AC/EC	477 x 951 x 225
	40		678	—	AC/EC	477 x 1136 x 225
	50		816	—	AC/EC	477 x 1321 x 225
	60		912	—	AC/EC	477 x 1506 x 225
	70		1050	—	AC/EC	575 x 1319 x 225
	80		1063	—	EC	575 x 1506 x 225
Fan coil cassette AC/EC P. 90 	20		659	—	AC/EC	341 x 595 x 595
	30		734	—	AC/EC	341 x 595 x 595
	40		900	—	AC/EC	341 x 595 x 595
	50		979	—	AC/EC	358 x 849 x 849
	60		1159	—	AC/EC	358 x 849 x 849
	70		1598	—	AC/EC	358 x 849 x 849
NEW fan coil wall DC P. 94 	19		345	—	DC	295 x 890 x 244
	24		416	—	DC	295 x 890 x 244
	27		480	—	DC	295 x 890 x 244
	36		710	—	DC	295 x 890 x 244
	45		753	—	DC	295 x 1060 x 249
	52		879	—	DC	295 x 1060 x 249
Fan coil wall AC P. 90 	7		360	—	AC	275 x 845 x 180
	9		551	—	AC	275 x 845 x 180
	18		680	—	AC	298 x 940 x 200
	22		850	—	AC	298 x 940 x 200
Fan coil duct EC P. 98 	10		357	0-70	EC	223 x 633 x 631
	15		491	0-90	EC	223 x 733 x 631
	20		599	0-90	EC	223 x 833 x 631
	25		642	0-90	EC	223 x 933 x 631
	30		1068	0-90	EC	223 x 933 x 631
	40		1293	0-90	EC	223 x 1233 x 653
Fan coil high static duct AC/EC P. 100 	7		1125	0-110	AC/EC	250 x 1200 x 698
	15		2830	0-200	AC/EC	375 x 1380 x 798
	18		2830	0-200	AC/EC	375 x 1380 x 798
	21		2830	0-200	AC/EC	375 x 1380 x 798
	24		3736	0-220	AC/EC	450 x 1500 x 798
	27		3736	0-220	AC/EC	450 x 1500 x 798

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) Fan coil comfort: with cabinet / without feet / vertical installation. Fan coil cassette: casing + IRYS COANDA 360 diffuser. Fan coil duct and high static duct: horizontal installation / configuration: rectangular return and discharge.

Fan coil units

Design to meet all needs, they have a comprehensive range of options and accessories available and a wide range of technological controllers: individual, groups and centralized.



Energy savings and comfort

- Low consumption solutions with high efficiency fan motor
- High level of energy performance

Quiet operation

- Optimised fan speed staging
- Reinforced acoustic insulation
- Profiled air diffusers

Fully customizable

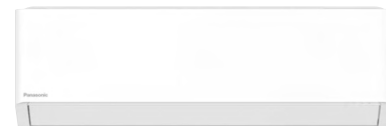
- Many factory-mounted options
- Choice of service side for hydraulic and electrical connections

Wide technological range of controls

- Individual controllers with intuitive user interface.
- Plologic group controller to control multiple units with a single control
- Plologic + BMS and SRC centralized and group control of different climatic zones with different settings

New fan coil wall unit - FK1

First Panasonic water fan coil unit integrated with nanoe™ X technology. Wall units with new modern, flat design with a stylish matte white finish. The fan coils are integrated with nanoe™ X technology to improve protection 24/7 (Generator Mark 3). They are ideal for commercial and residential applications in combination with Aquarea Heat Pumps.



DC fan.



Quiet operation.



Stylish design.



Motorized louvers.



Wide range of control options.



Service App*.

* CONEX control is required.

Greater flexibility in managing indoor climate

Fan coil wall FK1 allows precise control over the direction and volume of air flow thanks to motorized louvers which can be easily adjusted to suit different room layouts and usage patterns.

With the ability to adjust air flow direction, motorized louvers help maintain a consistent and comfortable indoor environment.



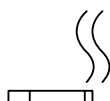
Improved indoor air quality with nanoe™ X

Fan coil wall FK1 is equipped with nanoe™ X for improved indoor air quality and higher level of performance. It comes with nanoe X Generator Mark 3, the latest of the continuously evolving nanoe™ X technology with the benefits of hydroxyl radicals.



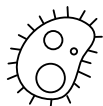
7 effects of nanoe™ X – Panasonic unique technology.

Deodorises



Odours

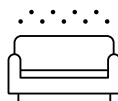
Capacity to inhibit 5 types of pollutants



Bacteria and viruses



Mould



Allergens



Pollen



Hazardous substances



Skin and hair

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

Smart controls: Compatible with CONEX Series.

CONEX. Devices and apps.

CONEX provides comfort and control for varying user needs. Accessible, flexible, and scalable with different controllers and apps. Perfectly meeting requirements of modern controls for end user, installer, and service.



Comfort Cloud



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



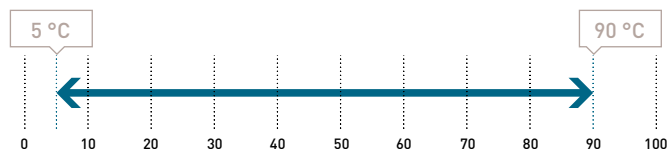
Optional controller.
Wired remote
controller.
PAW-FC-903AC



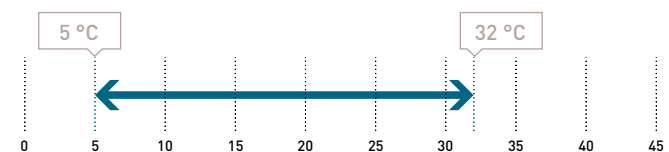
Optional controller.
Advanced wired
remote controller.
PAW-FC-RC1

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

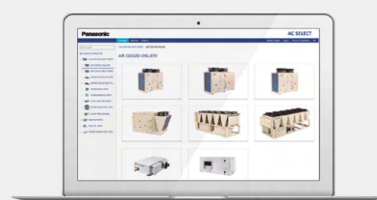
Accessories and options

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)

+ SEE PAGE <?> FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

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
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			Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded
2 or 4-pipes	Cooling	Inch	1/2	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	1/2
Dimension									
With cabinet - without feet	H x W x D	mm	477 x 766 x 225	477 x 766 x 225	477 x 951 x 225	477 x 1136 x 225	477 x 1321 x 225	477 x 1506 x 225	575 x 1319 x 225
Without cabinet	H x W x D	mm	430 x 570 x 220	430 x 570 x 220	430 x 753 x 220	430 x 938 x 220	430 x 1122 x 220	430 x 1307 x 220	530 x 1121 x 220
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

Energy efficiency class ⁷⁾

Fan coil comfort AC fan									
2-pipes	FCEER	A to E	E	E	D	D	D	D	D
	FCCOP	A to E	E	E	E	E	E	E	E
4-pipes	FCEER	A to E	E	D	D	D	E	D	D
	FCCOP	A to E	E	D	D	D	E	E	E

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). 7) According to Eurovent. * Standard configuration with left hand hydraulic connection. G2 air filter included as standard.



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

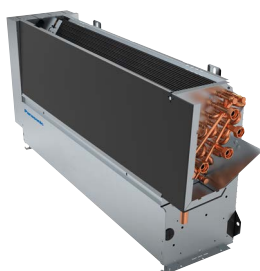


Fan coil comfort EC fan

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.



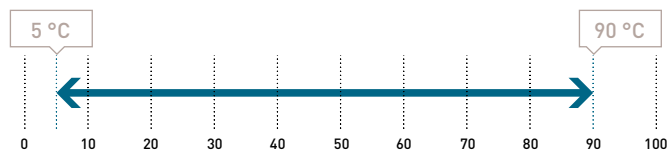
Optional controller.
Wired remote controller
with touch control.
PAW-FC-907EC



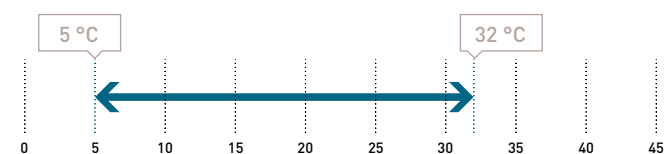
Optional controller.
Wired remote controller.
PAW-FC-903EC

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

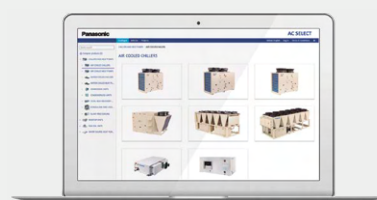
Accessories and options

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)

+ SEE PAGE <7> FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

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	14,1/21,4/37,6
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	4,21/5,80/8,43
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 ^{2) 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	14,4/23,1/45,6
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 ^{2) 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
	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
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
	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
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
	4-pipes		20/33/46	20/33/46	17/36/45	15/30/38	16/37/43	18/40/44	26/40/45
Ventilation									
Number of fans			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
	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
Filter			G2	G2	G2	G2	G2	G2	G2
Electrical data									
Power supply	Voltage	V	230	230	230	230	230	230	230
	Phase		Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase
	Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Consumption	2-pipes	W	7/12/41	7/13/41	6/16/42	2/13/43	4/23/46	4/30/54	11/44/77
	4-pipes	W	7/12/39	7/13/40	6/14/40	2/11/39	4/23/44	4/28/52	11/43/75
Electric heater	W		500	500	500/1000	1250	1250/2500	1250/2500	1250/2500
Water connections									
Connection type			Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded
2 or 4-pipes	Cooling	Inch	½	½	½	½	½	¾	¾
4-pipes	Heating	Inch	½	½	½	½	½	½	½
Dimension									
With cabinet - without feet	H x W x D	mm	477 x 766 x 225	477 x 766 x 225	477 x 951 x 225	477 x 1136 x 225	477 x 1321 x 225	477 x 1506 x 225	575 x 1319 x 225
Without cabinet	H x W x D	mm	430 x 570 x 220	430 x 570 x 220	430 x 753 x 220	430 x 938 x 220	430 x 1122 x 220	430 x 1307 x 220	530 x 1121 x 220
Weight									
With cabinet	2-pipes	kg	19	19	22	27	30	35	47
	4-pipes	kg	20	20	23	29	32	37	49
Without cabinet	2-pipes	kg	13	13	15	20	22	26	38
	4-pipes	kg	14	14	16	22	24	28	40

Energy efficiency class ⁷⁾

Fan coil comfort EC fan		FCEER	A to E	C	C	B	A	A	A	B	B
2-pipes	FCCOP	A to E	D	C	C	B	B	A	B	B	C
	FCEER	A to E	C	C	B	A	B	B	B	B	A
4-pipes	FCCOP	A to E	C	C	B	A	B	B	B	B	A
	FCEER	A to E	C	C	B	A	B	B	B	B	A

1) Fan standard factory set speeds (voltage). 2) According to Eurovent standard. Air: 27 °C DB/19 °C WB, chilled water: 7 °C/12 °C. 3) Pressure loss by corresponding nominal flow. 4) According to Eurovent standard. Air: 20 °C, hot water: 45 °C/40 °C. 5) According to Eurovent standard. Air: 20 °C, hot water: 65 °C/55 °C. 6) Informative data, considering a hypothetical sound attenuation of the room and installation of 9 dB(A). 7) According to Eurovent. * Standard configuration with left hand hydraulic connection. G2 air filter included as standard.



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



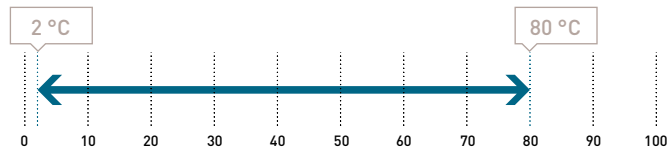
Optional controller.
Wired remote
controller.
PAW-FC-903AC



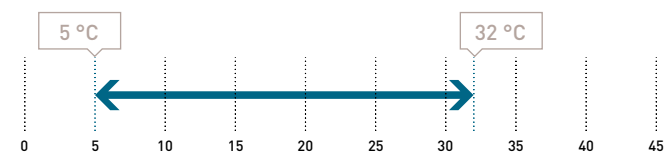
Optional controller.
Advanced wired
remote controller.
PAW-FC-RC1

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

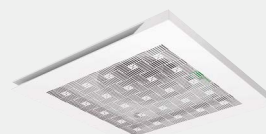
* From 20 to 40 with IRYs COANDA diffusers.

IRYs COANDA diffusers.

For a unique design and a strong coanda effect.

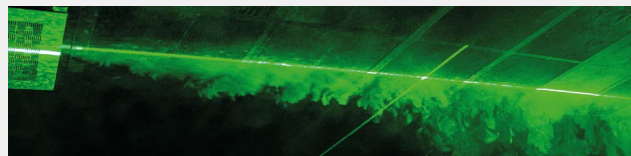


IRYs COANDA 360.
360° air diffusion.



IRYs COANDA 180.
180° air diffusion.

Coanda effect measurements taken in our Panasonic development center.



+ SEE PAGE <?> FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

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
			S2/S3/S4 ¹⁾	S2/S3/S4 ¹⁾	S2/S3/S4 ¹⁾	S2/S3/S4 ¹⁾	S2/S3/S4 ¹⁾	S2/S3/S4 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			Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded
2 or 4-pipes	Cooling	Inch	¾	¾	¾	1	1	1
4-pipes	Heating	Inch	½	½	½	—	¾	¾
Dimension								
With plastic diffuser	H x W x D	mm	334 x 720 x 720	334 x 720 x 720	334 x 720 x 720	339 x 960 x 960	339 x 960 x 960	339 x 960 x 960
With IRYs COANDA 180	H x W x D	mm	353 x 595 x 595	353 x 595 x 595	353 x 595 x 595	366 x 849 x 849	366 x 849 x 849	366 x 849 x 849
With IRYs COANDA 360	H x W x D	mm	341 x 595 x 595	341 x 595 x 595	341 x 595 x 595	358 x 849 x 849	358 x 849 x 849	358 x 849 x 849
Weight								
Weight	kg		14,8	16,5	16,5	37,1	37,1	39,6

Energy efficiency class ⁶⁾

Fan coil cassette AC fan								
2-pipes	FCEER	A to E	D	C	D	C	C	C
	FCCOP	A to E	E	D	D	C	C	D
4-pipes	FCEER	A to E	E	C	D	—	C	D
	FCCOP	A to E	E	C	D	—	C	C

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). 6) According to Eurovent. * Drain pump and G1 air filter are included as standard.

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 3S.



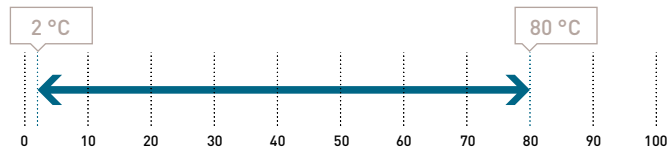
Optional controller.
Wired remote controller
with touch control.
PAW-FC-907EC



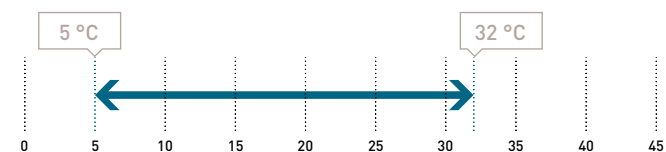
Optional controller.
Wired remote controller.
PAW-FC-903EC

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

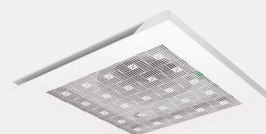
* From 20 to 40 with IRYs COANDA diffusers.

IRYs COANDA diffusers.

For a unique design and a strong coanda effect.

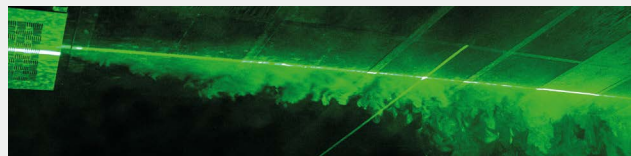


IRYs COANDA 360.
360° air diffusion.



IRYs COANDA 180.
180° air diffusion.

Coanda effect measurements taken in our Panasonic development center.



+ SEE PAGE <?> FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

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			Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded
2 or 4-pipes	Cooling	Inch	¾	¾	¾	1	1	1
4-pipes	Heating	Inch	½	½	½	—	¾	¾
Dimension								
With plastic diffuser	H x W x D	mm	334 x 720 x 720	334 x 720 x 720	334 x 720 x 720	339 x 960 x 960	339 x 960 x 960	339 x 960 x 960
With IRYs COANDA 180	H x W x D	mm	353 x 595 x 595	353 x 595 x 595	353 x 595 x 595	366 x 849 x 849	366 x 849 x 849	366 x 849 x 849
With IRYs COANDA 360	H x W x D	mm	341 x 595 x 595	341 x 595 x 595	341 x 595 x 595	358 x 849 x 849	358 x 849 x 849	358 x 849 x 849
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	A to E	B	A	B	A	A	A
	FCCOP	A to E	B	B	B	A	A	A
4-pipes	FCEER	A to E	B	A	B	—	A	B
	FCCOP	A to E	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. * Drain pump and G1 air filter are included as standard.

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 Plologic

Accessories and options

Modbus communication board for Plologic
 Plastic or metallic (IRYS COANDA) diffusers (mandatory)
 SRC - mini BMS controller
 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.

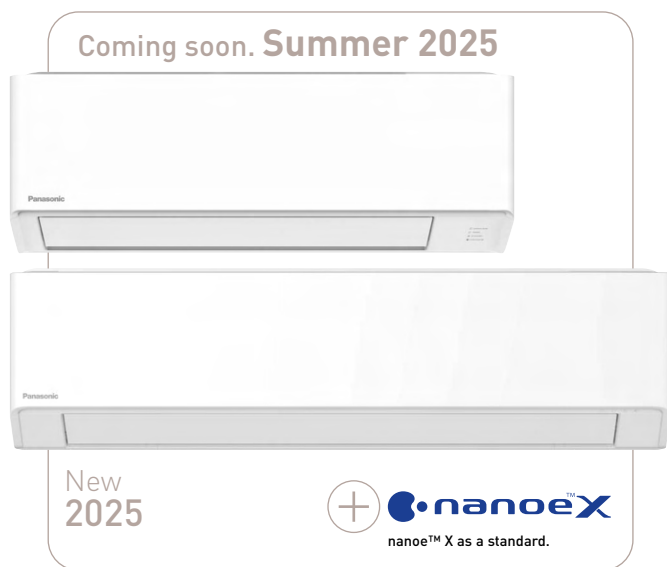


New fan coil wall DC fan – FK1

Fan coil wall units with new stylish design and nanoe™ X (Mark 3).

Cooling capacity: 1,9 to 5,2 kW.

Heating capacity: 2,2 to 5,3 kW.



Optional controller.
WRC remote control.



Optional controller.
SRC - mini BMS
controller.



Optional controller.
Electronic controller
TControl POD glass.



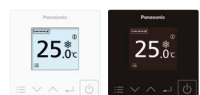
Optional controller.
Electronic controller
TControl EASY 3S.



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



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



Optional controller. CONEX
Series, white or black.
CZ-RTC6W/BL/BLW2 or
CZ-RTC6/BL/BLW2



Optional controller.
Wired remote controller
with Econavi function.
CZ-RTC5B



Optional controller.
Infrared remote controller
for wall-mounted.
CZ-RWS3

The range at a glance

- Versions (2-pipes): with 3 way valve
- 6 sizes
- DC fan for better efficiency and control
- Air flow from 360 to 1045 m³/h
- G1 cleanable air filter

Advantages

- Modern stylish design with flat face and compact size
- Motorized louvers
- Six directional piping outlet
- nanoe™ X (Generator Mark 3) as standard for better indoor air quality
- Quieter operation than AC fan models
- Very easy servicing through a removable front panel
- Cleanable synthetic-type air filter
- Compatibility with a wide range of controllers
- Ideal for commercial and residential applications in combination with Aquarea Heat Pumps

Accessories and options

Modbus communication board for Plologic

SRC - mini BMS controller

WRC: wall-mounted remote control for Plologic

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)

CZ-RWS3 - infrared remote controller

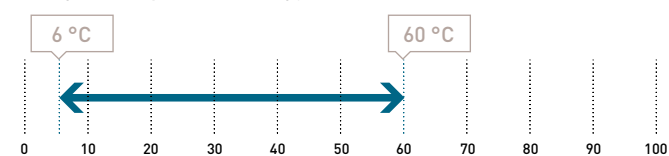
CZ-RTC5B - wired remote controller with Econavi function

CZ-RTC6 - CONEX Series wired remote controller

CZ-CENSC1 - Econavi energy saving sensor

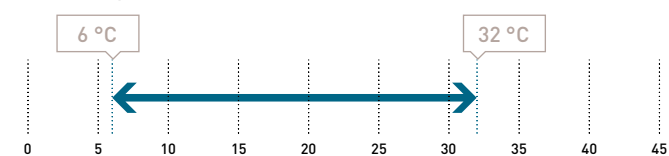
Operating limits

Entering water temperature (without glycol).



Maximum operating pressure: 10 bar.

Indoor air temperature.



+ SEE PAGE <?> FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

AC SELECT.

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



Technical features

Fan coil wall DC fan - FK1		S-19FK1E	S-24FK1E	S-27FK1E	S-36FK1E	S-45FK1E	S-52FK1E
		H/M/L	H/M/L	H/M/L	H/M/L	H/M/L	H/M/L
2-pipes, with/without 3 way valve							
Total cooling capacity ¹⁾	kW	1,90/1,65/1,40	2,41/2,17/1,92	2,73/2,51/2,02	3,61/3,11/2,65	4,50/3,78/3,02	5,23/4,63/4,03
Sensible capacity ¹⁾	kW	1,54/1,35/1,10	1,91/1,71/1,50	2,19/2,00/1,59	2,98/2,52/2,12	3,41/2,84/2,25	4,02/3,51/3,04
Water flow ¹⁾	l/h	342/295/250	432/389/344	489/449/362	648/556/473	809/680/539	908/830/724
Water pressure drop (coil only)	kPa	8/6/4	13/11/8	17/14/9	30/22/16	42/30/19	56/44/34
Water pressure drop (with 3 way valve) ¹⁾	kPa	29/23/18	36/29/25	44/39/26	74/57/42	110/80/53	142/112/90
Air flow ¹⁾	m ³ /h	345/276/230	416/361/324	480/434/343	710/572/462	753/603/488	879/753/637
Input power ¹⁾	W	12/11/10	14/12/12	16/14/12	26/19/15	22/17/13	29/23/18
Sound pressure Lp ^{1) 2)}	dB(A)	27	26	29	39	35	40
Sound power Lw ¹⁾	dB(A)	43	42	45	55	51	56
Heating capacity ³⁾	kW	2,23/1,92/1,59	2,72/2,39/1,97	3,01/2,64/2,18	4,03/3,48/2,89	5,13/4,21/3,09	5,33/4,72/4,03
Water flow ³⁾	l/h	381/329/281	481/417/339	533/463/379	715/614/508	898/740/544	931/827/710
Water pressure drop (coil only)	kPa	10/8/5	16/12/8	20/15/10	36/27/18	52/36/19	56/44/33
Water pressure drop (with 3 way valve) ³⁾	kPa	30/24/18	39/31/23	47/36/25	72/60/42	118/82/46	128/97/74
Air flow ³⁾	m ³ /h	406/314/253	489/425/343	545/471/379	765/646/517	925/730/511	960/810/672
Input power ³⁾	W	13/12/10	15/14/12	17/15/13	28/21/16	32/21/14	35/26/19
Sound pressure Lp ^{2) 3)}	dB(A)	29/27/24	29/26/22	32/28/23	41/36/30	42/36/28	43/39/34
Sound power Lw ³⁾	dB(A)	45/43/40	45/42/38	48/44/39	57/52/46	58/52/44	59/55/50
Water Connection							
Connection type		Gas female threaded	Gas female threaded	Gas female threaded	Gas female threaded	Gas female threaded	Gas female threaded
	Inch	1/2	1/2	1/2	1/2	1/2	1/2
nanoe X Generator		Mark 3	Mark 3	Mark 3	Mark 3	Mark 3	Mark 3
Dimensions and weight							
Dimension	H x W x D	mm	295 x 890 x 244	295 x 890 x 244	295 x 890 x 244	295 x 890 x 244	295 x 1060 x 249
Weight	kg		12	13	13	14	14

Energy efficiency class ¹⁾

Fan coil wall DC fan - FK1		FCEER ¹⁾	A to E	B	B	B	B	A	A
2-pipes	$\eta_{s,c}$	%	144,2	166,9	172,1	169,3	226,8	213,0	
	FCCOP ³⁾	A to E	B	B	B	B	B	B	
	$\eta_{s,h}$	%	160,0	167,0	170,5	173,4	208,5	198,0	

1) According to Eurovent standard. Air: 27 °C DB/19 °C WB, chilled water: 7 °C/12 °C. 2) The sound pressure of the indoor unit shows the value measured of a position of 1 m in front of the main body and 0,8 m below the unit. The sound pressure is measured in accordance with JIS C 9612. 3) According to Eurovent standard. Air: 20 °C, hot water: 45 °C/40 °C.

New fan coil wall.

First Panasonic water fan coil unit integrated with nanoe™ X technology.

Fan coil wall unit with stylish design, ideal for commercial and residential applications in combination with Aquarea Heat Pumps. The units are integrated with nanoe™ X technology to improve protection 24/7 (Generator Mark 3).

Bringing nature's balance indoors.

The new fan coil wall is equipped with nanoe™ X for improved indoor air quality. nanoe™ X, technology with the benefits of hydroxyl radicals.



7 effects of nanoe™ X – Panasonic unique technology.

Capacity to inhibit 5 types of pollutants



Bacteria and viruses



Mould



Allergens



Pollen



Hazardous substances

Deodorises



Odours

Moisturises



Skin and hair



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

Fan coil wall AC fan

Fan coil wall 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

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 Plologic

SRC - mini BMS controller

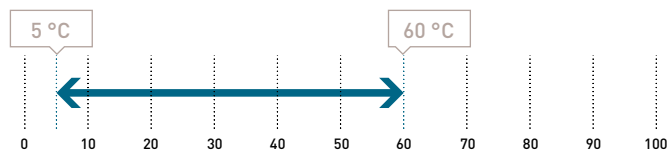
Plologic controller (other electromechanical or electronic control systems also available)

TControl EASY 3S and TControl POD glass controllers (other electromechanical or electronic control systems also available)

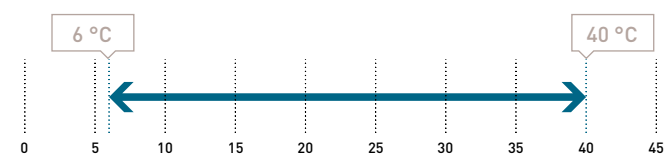
WRC: wall-mounted remote control for Plologic

Operating limits

Entering water temperature (without glycol).



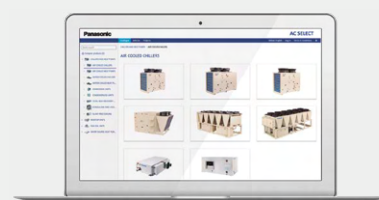
Indoor air temperature.



+ SEE PAGE <?> FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

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(IR)	P-FW09(IR)	P-FW18(IR)	P-FW22(IR)
			S2/S3/S4 ¹⁾	S2/S3/S4 ¹⁾	S2/S3/S4 ¹⁾	S2/S3/S4 ¹⁾
2-pipes, without valve, without/with IR infrared control						
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⁾	kW		1,42/1,62/1,72	1,68/1,92/2,80	2,99/3,30/4,10	3,18/3,63/4,50
Water flow ³⁾	l/h		245/279/296	289/331/482	515/568/706	548/625/775
Water pressure drop ³⁾	kPa		17,6/23,4/26,5	21,4/23,5/28,6	39,9/46,3/64,7	41,7/55,0/85,8
Sound levels						
Sound power	dB(A)		45/49/51	40/43/52	47/50/54	50/55/60
Sound pressure ⁴⁾	dB(A)		30/33/35	32/36/40	39/41/43	39/43/48
NR ⁴⁾	dB(A)		32/36/38	34/39/44	40/43/46	43/46/50
Ventilation						
Number of fans			1	1	1	1
Air flow	m³/h		282/321/360	367/413/551	532/592/680	617/709/850
Filter			G1	G1	G1	G1
Electrical data						
Power supply	Voltage	V	230	230	230	230
	Phase		Single phase	Single phase	Single phase	Single phase
	Frequency	Hz	50	50	50	50
Consumption	Cooling	W	39/42/62	30/33/40	44/48/53	50/55/69
	Heating	W	39/42/62	27/30/50	42/45/60	46/51/66
Water connections						
Connection type			Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded
Connections	Inch		½	½	½	½
Dimension and weight						
Dimension	H x W x D	mm	275 x 845 x 180	275 x 845 x 180	298 x 940 x 200	298 x 940 x 200
Weight	kg		11	11	13	13

Fan coil wall AC fan			P-FW09IR-3W	P-FW22IR-3W
			S2/S3/S4 ¹⁾	S2/S3/S4 ¹⁾
2-pipes, with valve, with IR infrared control				
Total cooling capacity ²⁾	kW		1,11/1,25/1,40	2,32/2,68/3,10
Sensible capacity ²⁾	kW		0,91/1,08/1,25	1,68/1,98/2,28
Water flow ²⁾	l/h		191/215/241	400/460/532
Water pressure drop ²⁾	kPa		14,9/16,8/18,8	42,4/50,8/61,5
Heating capacity ³⁾	W		1,29/1,61/2,00	2,51/2,75/3,30
Water flow ³⁾	l/h		222/277/344	432/474/568
Water pressure drop ³⁾	kPa		16,1/21,3/28,2	45,8/48,6/54,1
Sound levels				
Sound power	dB(A)		44/50/54	53/57/60
Sound pressure ⁴⁾	dB(A)		32/36/40	39/43/48
NR ⁴⁾	dB(A)		27/31/37	34/37/41
Ventilation				
Number of fans			1	1
Air flow	m³/h		150/250/400	290/400/600
Filter			G1	G1
Electrical data				
Power supply	Voltage	V	230	230
	Phase		Single phase	Single phase
	Frequency	Hz	50	50
Consumption	Cooling	W	35/38/43	50/58/69
	Heating	W	30/33/43	50/58/69
Water connections				
Connection type			Female gas threaded	Female gas threaded
Connections	Inch		½	½
Dimension and weight				
Dimension	H x W x D	mm	275 x 845 x 180	298 x 940 x 200
Weight	kg		11	13

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



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

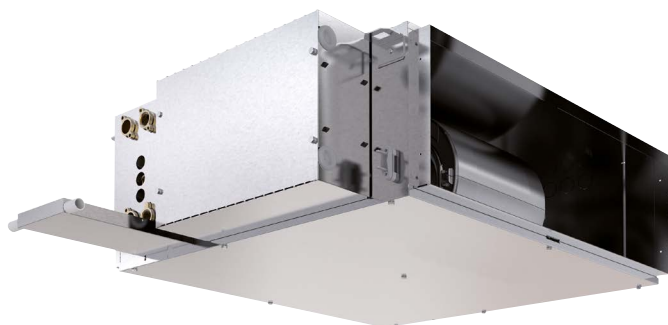


Fan coil duct EC fan

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 3S.



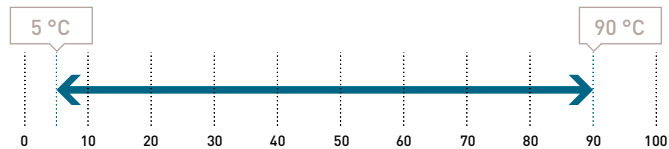
Optional controller.
Wired remote controller
with touch control.
PAW-FC-907EC



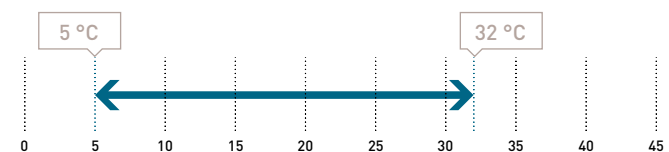
Optional controller.
Wired remote controller.
PAW-FC-903EC

Operating limits

Entering water temperature (without glycol).



Indoor air temperature.



The range at a glance

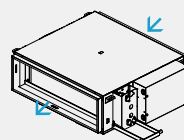
- Versions: 2-pipes, 2-pipes + electric heater and 4-pipes
- 6 sizes
- Low energy consumption EC fan: 100% controllable via a 0-10 V signal or 3 operating speeds
- Air flow from 82 to 1293 m³/h
- Static pressure up to 120 Pa
- Many air inlet/outlet configurations
- Left or right water / electric connections

Advantages

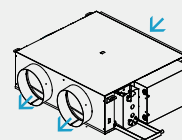
- Excellent performances: FCEER and FCCOP up to "A"
- Silent units: internal acoustic and thermal insulation
- Highly customisable: many aeraulic configurations and selection of hydraulic, and electric service side
- Ease of installation: very low height (223 mm)
- Easy maintenance: direct access to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

Air inlet/outlet configurations.

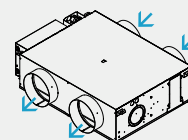
I configurations.



Rectangular return and
discharge (standard).

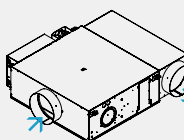


Rectangular return and
circular discharge.



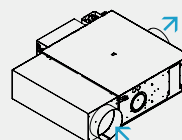
Circular return and
discharge.

J configuration.



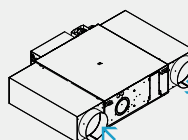
Circular return and
discharge.

L configuration.



Circular return and
discharge.

U configuration.



Circular return and
discharge.

+ SEE PAGE <?> FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

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selection program: <https://acselect.panasonic.eu/>



Technical features

Fan coil duct EC fan			P-FD10	P-FD15	P-FD20	P-FD25	P-FD30	P-FD40
			2V/7,35V/10V ¹⁾	3,8V/6,00V/8,2V ¹⁾	4,8V/7,15V/8,9V ¹⁾	3,1V/3,9V/4,85V ¹⁾	2V/6V/10V ¹⁾	2,1V/5,5V/10V ¹⁾
2-pipes								
Total cooling capacity ²⁾	kW		0,7/1,2/1,5	1,39/1,88/2,06	1,83/2,42/2,74	2,42/2,77/3,2	1,90/3,66/4,80	2,4/4,94/6,66
Sensible capacity ²⁾	kW		0,67/1,08/1,36	1,16/1,6/1,96	1,46/1,92/2,21	1,96/2,24/2,63	1,42/2,82/3,68	1,8/4,1/6,13
Water flow ²⁾	l/h		121/207/258	239/324/355	315/416/472	416/477/551	327/630/827	413/851/1148
Water pressure drop ²⁾	kPa		2,38/5,29/7,52	6,1/9,3/10,5	9,5/15,5/19,5	19,7/25,3/33,1	15,2/44/70,3	8,2/29,7/51,7
Heating capacity ³⁾	kW		0,51/1,28/1,82	1,45/2,07/2,55	2,07/2,47/2,59	2,58/3,02/3,39	1,90/3,83/5,01	2,4/5,1/7,06
Water flow ³⁾	l/h		87,8/220/313	250/357/439	357/425/446	444/520/584	327/660/863	410/878/1216
Water pressure drop ³⁾	kPa		1,54/5,85/10,3	6,5/10,6/14,3	11,9/16,1/17,6	22,3/30/37,3	10,3/37,6/62,8	8,2/31,4/57,6
4-pipes								
Total cooling capacity ²⁾	kW		0,71/1,35/1,58	1,34/1,78/2,18	1,78/2,38/2,74	2,19/2,69/2,94	1,72/3,54/4,57	2,22/4,76/6,37
Sensible capacity ²⁾	kW		0,67/1,20/1,42	1,11/1,52/1,73	1,42/1,9/2,22	1,73/2,16/2,39	1,24/2,61/3,39	1,77/4,02/5,63
Water flow ²⁾	l/h		122/233/272	231/307/376	306/410/472	377/463/506	296/610/787	382/821/1097
Water pressure drop ²⁾	kPa		2,43/6,36/8,18	5,8/8,5/11,4	9,1/15,1/19,5	13,3/19,4/22,9	8,6/32,4/52,7	7,2/27,8/57,1
Heating capacity ⁴⁾	kW		0,65/1,66/2,16	1,79/2,54/2,88	2,6/3,02/3,12	3,16/3,59/4,03	1,73/3,27/4,10	2,64/5,05/6,61
Water flow ⁴⁾	l/h		56/143/186	154/219/248	224/260/269	308/344/385	149/282/353	227/435/569
Water pressure drop ⁴⁾	kPa		1,36/4,88/7,24	5,9/11,1/13,9	12,1/18/19,7	11,5/14,9/18,9	3,27/12,3/19,6	3,5/37,3/120
Sound levels								
Sound power return - radiated ⁵⁾	2-pipes	dB(A)	31/52/55	44/55/60	46/57/61	50/55/61	40/58/64	42/58/68
	4-pipes	dB(A)	29/52/55	44/55/60	50/57/61	50/55/61	40/58/64	43/58/68
Sound power - discharge ⁵⁾	2-pipes	dB(A)	31/51/55	41/52/58	50/57/61	50/56/61	36/56/64	39/57/70
	4-pipes	dB(A)	34/51/57	41/52/58	50/57/61	50/56/61	36/56/64	38/54/70
Sound pressure ⁶⁾	2-pipes	dB(A)	<20/35/38	26/37/42	31/40/44	33/39/44	20/39/47	23/39/52
	4-pipes	dB(A)	<20/35/38	26/37/42	31/40/44	33/39/44	20/39/47	24/39/52
NR ⁶⁾	2-pipes		9/30/33	21/32/37	26/35/39	28/34/39	15/34/42	18/34/47
	4-pipes		6/30/33	21/32/37	26/35/39	28/34/39	15/34/42	19/34/47
Ventilation								
Number of fans			1	1	1	1	1	1
Air flow ⁵⁾	2-pipes	m³/h	82/247/357	255/383/491	360/501/599	448/541/642	300/738/1068	347/848/1293
	4-pipes	m³/h	85/292/384	228/351/452	331/467/560	413/503/602	255/654/943	319/802/1228
External static pressure	2-pipes	Pa	3,3/30/62,6	22/50/82	26/50/72	34/50/70	8/50/105	8/50/116
	4-pipes	Pa	2,5/30/51,8	21/50/83	25/50/72	34/50/72	8/50/104	8/50/117
Electrical data								
Power supply	Voltage	V	230	230	230	230	230	230
	Phase		Single phase	Single phase	Single phase	Single phase	Single phase	Single phase
	Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60
Consumption	2-pipes	W	7/19/35	11/29/56	19/50/70	25/41/64	9/65/163	10/62/197
	4-pipes	W	7/20/36	11/28/53	20/47/76	26/41/69	8/60/147	10/60/188
Electric heater	W		500	600/1000	600/1000	1000/2000	1000/2000	1250/2500
Water connections								
Connection type			Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded	Female gas threaded
2 or 4-pipes	Cooling	Inch	½	½	½	½	½	¾
4-pipes	Heating	Inch	½	½	½	½	½	½
Dimension and weight								
Dimension without drain pan	H x W x D	mm	223 x 633 x 631	223 x 733 x 631	223 x 833 x 631	223 x 933 x 631	223 x 933 x 631	223 x 1233 x 653
Weight	kg		14	16	18	20	22	29

Energy efficiency class ⁷⁾

Fan coil duct EC fan								
2-pipes	FCEER	A to E	C	B	B	B	B	A
	FCCOP	A to E	C	A	B	A	B	A
4-pipes	FCEER	A to E	C	B	B	B	B	A
	FCCOP	A to E	C	A	A	A	B	A

1) Fan standard factory set speeds (voltage). 2) According to Eurovent standard. Air: 27 °C DB/19 °C WB, chilled water: 7 °C/12 °C. 3) 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 (P-FD10/15/20/25/30) or G3 (P-FD40) 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



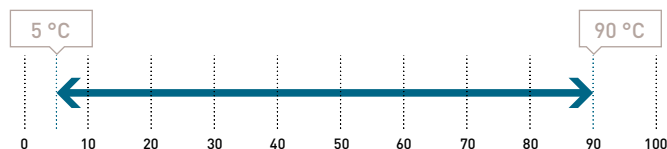
Optional controller.
Wired remote
controller.
PAW-FC-903AC



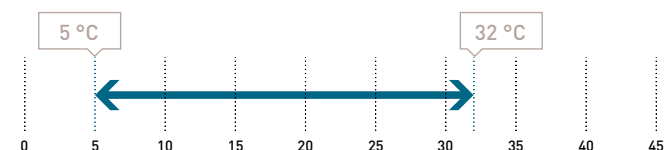
Optional controller.
Advanced wired
remote controller.
PAW-FC-RC1

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



SEE PAGE <?> FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

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-FH7	P-FH15	P-FH18	P-FH21	P-FH24	P-FH27
			S1/S3/S5 ¹⁾	S1/S3/S5 ¹⁾	S1/S3/S5 ¹⁾	S1/S3/S5 ¹⁾	S1/S2/S3 ¹⁾	S1/S2/S3 ¹⁾
2-pipes								
Total cooling capacity ²⁾	kW		4,43/5,32/5,59	6,9/11,48/13,33	6,32/11,48/13,87	7,07/13,7/17	14,78/16,67/19,03	16,4/18,9/21,9
Sensible capacity ²⁾	kW		3,14/3,97/4,25	5,04/9,19/11,23	4,94/9,48/11,89	4,93/9,94/12,5	10,68/12,27/14,23	11,4/13,3/15,5
Water flow ²⁾	l/h		765/919/965	1191/1982/2302	1091/1982/2395	1221/2365/2935	2552/2878/3286	2832/3263/3781
Water pressure drop ²⁾	kPa		27,4/39,2/43,5	7,9/19,8/26,1	6,8/19,6/27,6	8,5/28,7/43,5	14,7/18,3/23,3	13,6/17,6/23
Heating capacity ³⁾	kW		4,06/5,53/6,7	6,6/12/15,48	7,2/14/18,01	6,95/13,9/17,8	15/17,4/20,9	15,4/17,9/21,5
Water flow ³⁾	l/h		701/955/1157	1140/2072/2673	1243/2417/3110	1200/2400/3073	2590/3004/3609	2659/3091/3712
Water pressure drop ³⁾	kPa		24,1/43,5/63,2	5/17,9/26,3	6,1/16,1/24,3	12,4/21,8/34,1	11,4/21,9/28,1	10,7/21/27,3
4-pipes								
Total cooling capacity ²⁾	kW		4,05/4,84/5,08	6,38/10,08/11,33	6,77/11,18/12,83	7,75/14,38/17,43	13,68/15,27/17,13	14,78/16,77/19,13
Sensible capacity ²⁾	kW		2,86/3,57/3,8	4,76/8,42/10,13	5,01/9,13/11,13	5,45/10,58/13,23	10,18/11,67/13,33	10,68/12,27/14,23
Water flow ²⁾	l/h		699/836/877	1102/1740/1956	1169/1930/2215	1338/2483/3009	2362/2637/2958	2552/2896/3303
Water pressure drop ²⁾	kPa		31/43/47,2	5,8/13,3/16,9	6,9/17,1/22,6	11,1/34,9/50,9	15,3/18,8/23,3	13,5/17/21,5
Heating capacity ⁴⁾	kW		5,5/7/7,7	9,6/17/21	9,7/17,06/21	9,7/17,1/21	10,9/12,9/15,2	18,5/25/29,6
Water flow ⁴⁾	l/h		475/604/665	829/1468/1813	837/1473/1813	837/1476/1813	941/1114/1312	1597/2158/2555
Water pressure drop ⁴⁾	kPa		9/13,3/15	32,7/92,1/134	20,2/56,1/80	20,2/56,1/80	30,8/39/49,5	38,8/67,2/82
Sound levels								
Sound power return - radiated ⁵⁾	2-pipes	dB(A)	57/60/63	52/66/72	54/66/74	52/66/72	65/69/73	65/69/73
	4-pipes	dB(A)	54/60/63	52/66/72	52/66/72	52/66/72	65/69/73	65/69/73
Sound power - discharge ⁵⁾	2-pipes	dB(A)	53/59/62	52/64/71	52/64/71	52/74/71	64/67/72	64/67/72
	4-pipes	dB(A)	53/59/62	52/64/71	52/64/71	52/64/71	64/67/72	64/67/72
Sound pressure ⁶⁾	2-pipes	dB(A)	33/39/42	31/45/51	31/45/51	31/45/51	44/48/52	44/48/52
	4-pipes	dB(A)	33/39/42	31/45/51	31/45/51	31/45/51	44/48/52	44/48/52
NR ⁶⁾	2-pipes		27/34/37	27/40/47	27/40/47	27/40/47	40/44/48	40/44/48
	4-pipes		27/34/37	27/40/47	27/40/47	27/40/47	40/44/48	40/44/48
Ventilation								
Number of fans			1	1	1	1	1	1
Filter			G3	G3	G3	G3	G3	G3
Air flow ⁵⁾	2-pipes	m ³ /h	703/977/1125	960/2112/2830	960/2112/2830	960/2112/2830	2040/2413/3436	2040/2413/3736
	4-pipes	m ³ /h	586/824/974	960/2112/2830	960/2112/2830	960/2112/2830	2040/2413/3436	2040/2413/3736
External static pressure	2-pipes	Pa	30/50/70	15/50/90	15/50/90	15/50/90	35/50/75	35/50/75
	4-pipes	Pa	25/50/70	15/50/90	15/50/90	15/50/90	35/50/75	35/50/75
Electrical data								
Power supply	Voltage	V	230	230	230	230	230	230
	Phase		Single phase	Single phase	Single phase	Single phase	Single phase	Single phase
	Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60
Consumption	W		132/182/222	180/421/675	180/421/675	180/421/675	420/530/673	420/530/673
Electric heater	W		2000	3000	3000	3000	3000	3000
Water connections								
Connection type		Female gas threaded	Male gas threaded	Male gas threaded	Male gas threaded	Male gas threaded	Male gas threaded	Male gas threaded
2-pipes	Inch	1/2	1	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4
4-pipes	Cooling	Inch	1/2	1	1	1	1 1/4	1 1/4
	Heating	Inch	1/2	3/4	3/4	3/4	3/4	3/4
Dimension and weight								
Dimension	H x W x D	mm	250 x 1200 x 698	375 x 1380 x 798	375 x 1380 x 798	375 x 1380 x 798	450 x 1500 x 798	450 x 1500 x 798
Weight	kg		42	63	65	67	76	80

Energy efficiency class ⁷⁾

Fan coil high static duct AC fan								
2-pipes	FCEER	A to E	D	D	D	D	D	D
	FCCOP	A to E	C	C	C	C	D	D
4-pipes	FCEER	A to E	D	D	D	D	D	D
	FCCOP	A to E	C	C	C	C	D	D

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). 7) According to Eurovent. * Data with 1 configuration with rectangular return and discharge.

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.



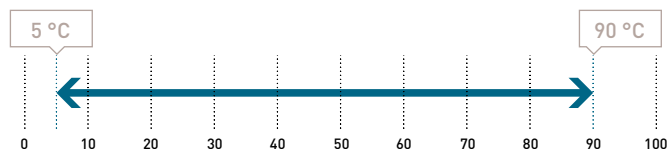
Optional controller.
Wired remote controller
with touch control.
PAW-FC-907EC



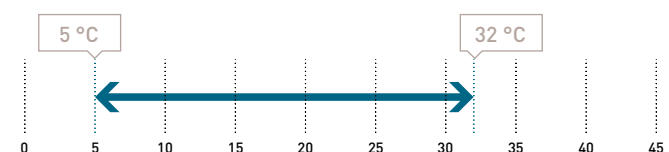
Optional controller.
Wired remote controller.
PAW-FC-903EC

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 (Ø7 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



SEE PAGE <?> FOR MORE DETAILS ABOUT FAN COIL CONTROLLERS

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-FH7	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			Female gas threaded	Male gas threaded	Male gas threaded	Male gas threaded	Male gas threaded	Male gas 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	Inch		½	¾	¾	¾	¾	¾
	Heating	Inch	½	¾	¾	¾	¾	¾
Dimension and weight								
Dimension	H x W x D	mm	250 x 1200 x 698	375 x 1380 x 798	375 x 1380 x 798	375 x 1380 x 798	450 x 1500 x 798	450 x 1500 x 798
Weight	kg		42	63	65	67	76	80

Energy efficiency class ⁷⁾

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



Fan coil controllers

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



1 Individual controllers

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

2 Group controllers

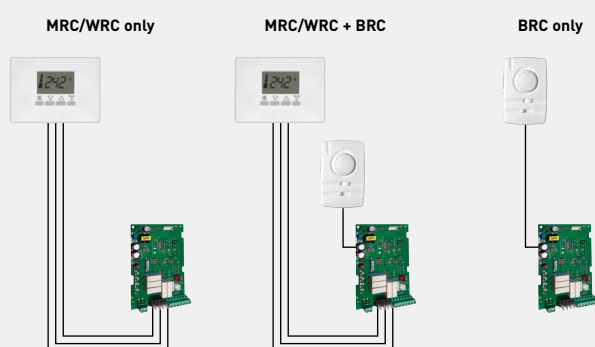
These controllers allow the control of more than one fan coil unit per controller but maintaining the same fan and temperature settings (a slight temperature variation is possible within the same zone). Plogic is the Panasonic group controller that allows you to control multiple units with a single control.

3 Centralized and group controller

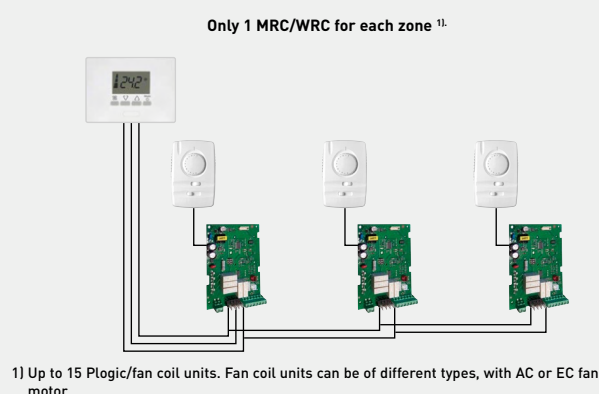
Due to the advanced technical capability, it is possible to control different climatic zones with different settings and ambient conditions. The combination of Plogic + BMS and SRC are the perfect example for this type of control.

Plogic (zone controller) with remote control.

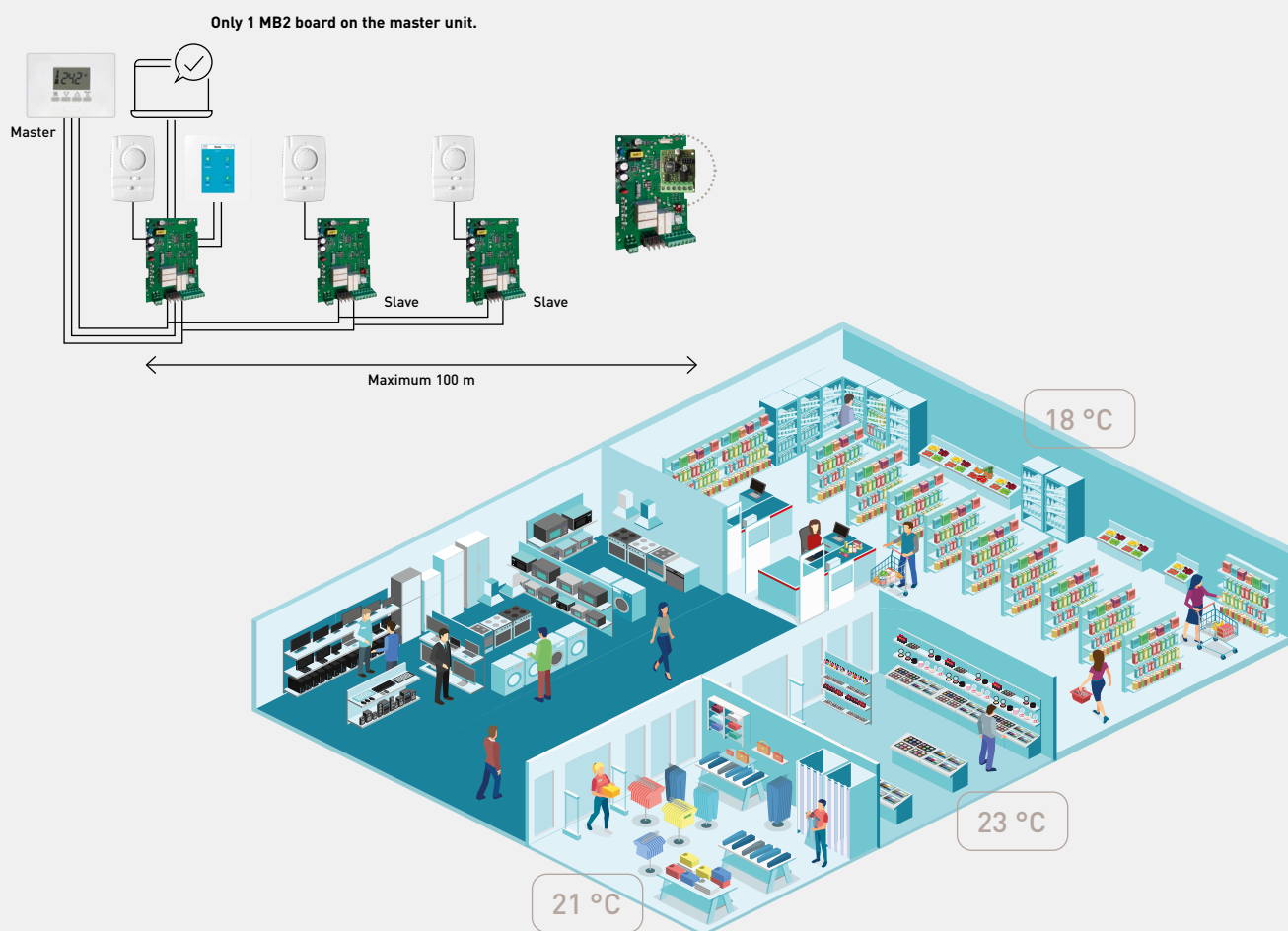
1| Plogic. Different individual control possibilities.



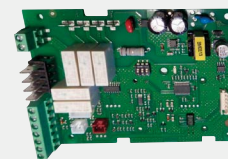
2| Plogic. Group control (without BMS).



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	✓	✓
2-pipes cooling + electric heater (≤ 2000 W)	✓	✓
2-pipes heat pump + electric heater (≤ 2000 W)	—	✓
4-pipes	✓	✓
Communication protocol	—	Modbus (with MB2 card)
SRC mini BMS compatibility	—	✓
Functions		
Changeover	Manual	Manual or Auto ¹⁾
Fan speed selection	Manual	Manual or Auto
Fan operation	Cyclic ²⁾	Continuous ³⁾ or cyclic ²⁾
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

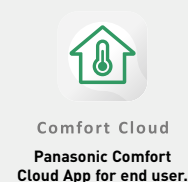
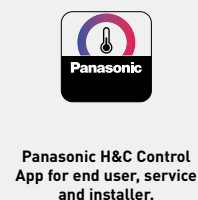
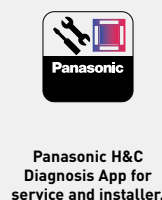
1) Changeover Auto with water pipe sensor. 2) Cyclic: fan stops when the set point is reached. 3) Continuous: fan continues running after the set point is reached.

CONEX. Devices and apps*.

CONEX provides comfort and control for varying user needs. Accessible, flexible and scalable with different controllers and apps.

* Only available for fan coil wall FK1 models.

Model	Description
CZ-RTC6W	CONEX wired remote controller (non-wireless), white
CZ-RTC6WBL	CONEX wired remote controller with Bluetooth®, white
CZ-RTC6WBLW2	CONEX wired remote controller with Wi-Fi and Bluetooth®, white
CZ-RTC6	CONEX wired remote controller (non-wireless), black
CZ-RTC6BL	CONEX wired remote controller with Bluetooth®, black
CZ-RTC6BLW2	CONEX wired remote controller with Wi-Fi and Bluetooth®, black





TControl EASY 3S

TControl POD glass

PAW-FC-RC1

PAW-FC-903EC
PAW-FC-907ECPAW-FC-903AC
PAW-FC-907AC

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Modbus

Modbus

Modbus

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Manual or Auto ¹⁾Manual or Auto ¹⁾ or
centralized

Manual or Auto

Manual

Manual

Manual or Auto

Manual or Auto

Manual or Auto

Manual or Auto

Manual or Auto

Continuous ³⁾ or cyclic ²⁾Continuous ³⁾ or cyclic ²⁾

—

Continuous ³⁾ or cyclic ²⁾Continuous ³⁾ or cyclic ²⁾

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Wall (surface or
embedded)Wall (surface or
embedded)

Wall (embedded)

Wall (embedded)

Wall (embedded)

Remote controls.

Plogic.

Wall mounting (surface) or mounted on the unit.

WRC / MRC ¹⁾

BRC

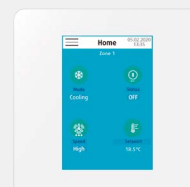
IRC ¹⁾

1) Integrated temperature sensor.

SRC - mini BMS controller.

Smart controller. Mini building management system.

- 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

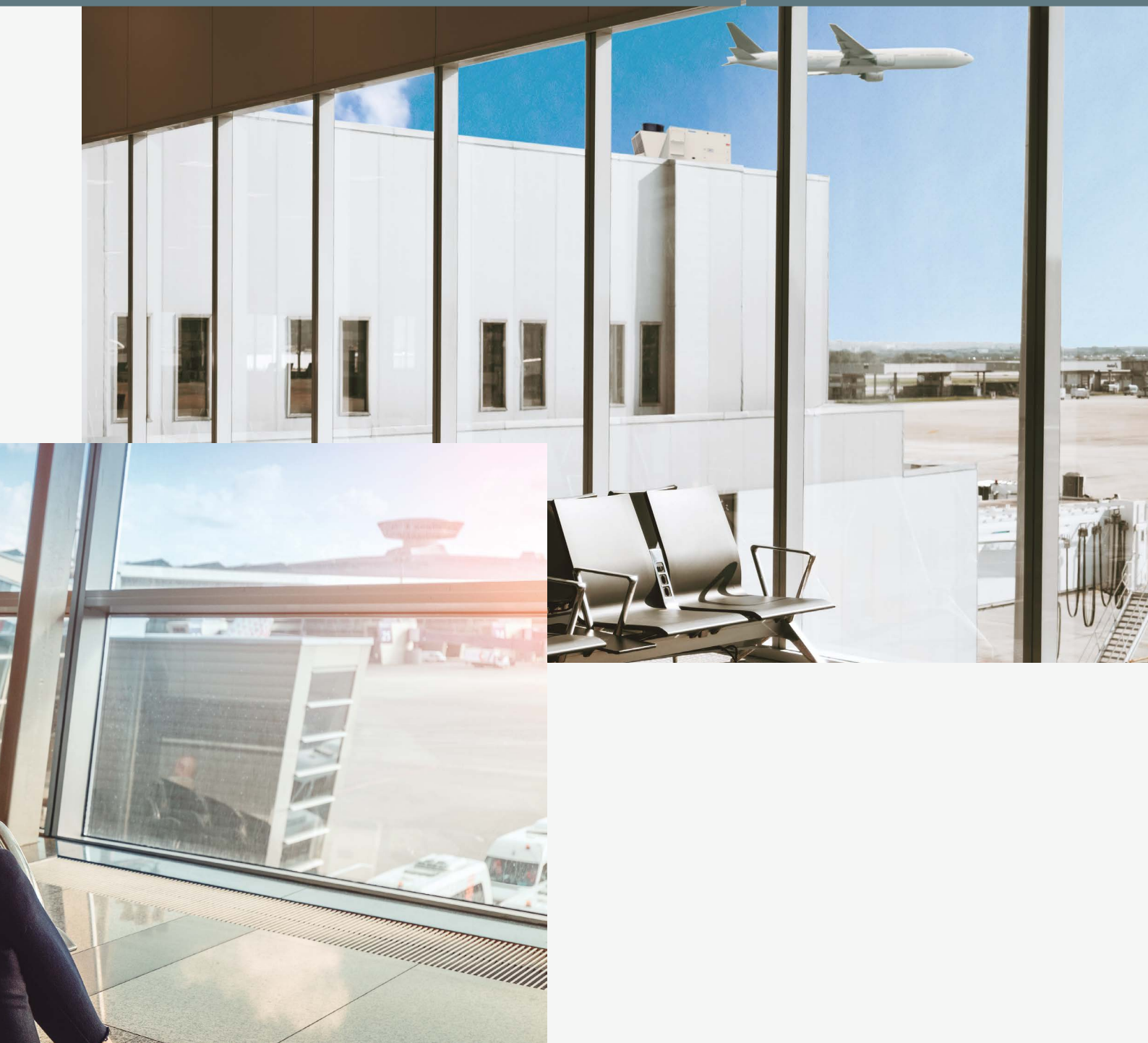


Note: Electrical heaters maximum power may vary according to the controller without a relay.

Rooftops

Rooftop units provide air-based cooling and heating for commercial buildings to ensure thermal comfort and proper indoor air quality (IAQ) through ventilation. Easy installation, space savings and customisation allow you to meet all your needs.





Rooftops	→ 108
Quick selection guide - Rooftops cooling only	→ 112
Quick selection guide - Rooftops reversible	→ 112
Energy recovery system configurations	→ 113
ECOi-RT-Z 40-50 C/H · R32	→ 114
ECOi-RT-Z 105-140 H · R32	→ 116
ECOi-RT C/H · R410A	→ 118

Rooftops

A complete mono-bloc solution for large buildings.

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



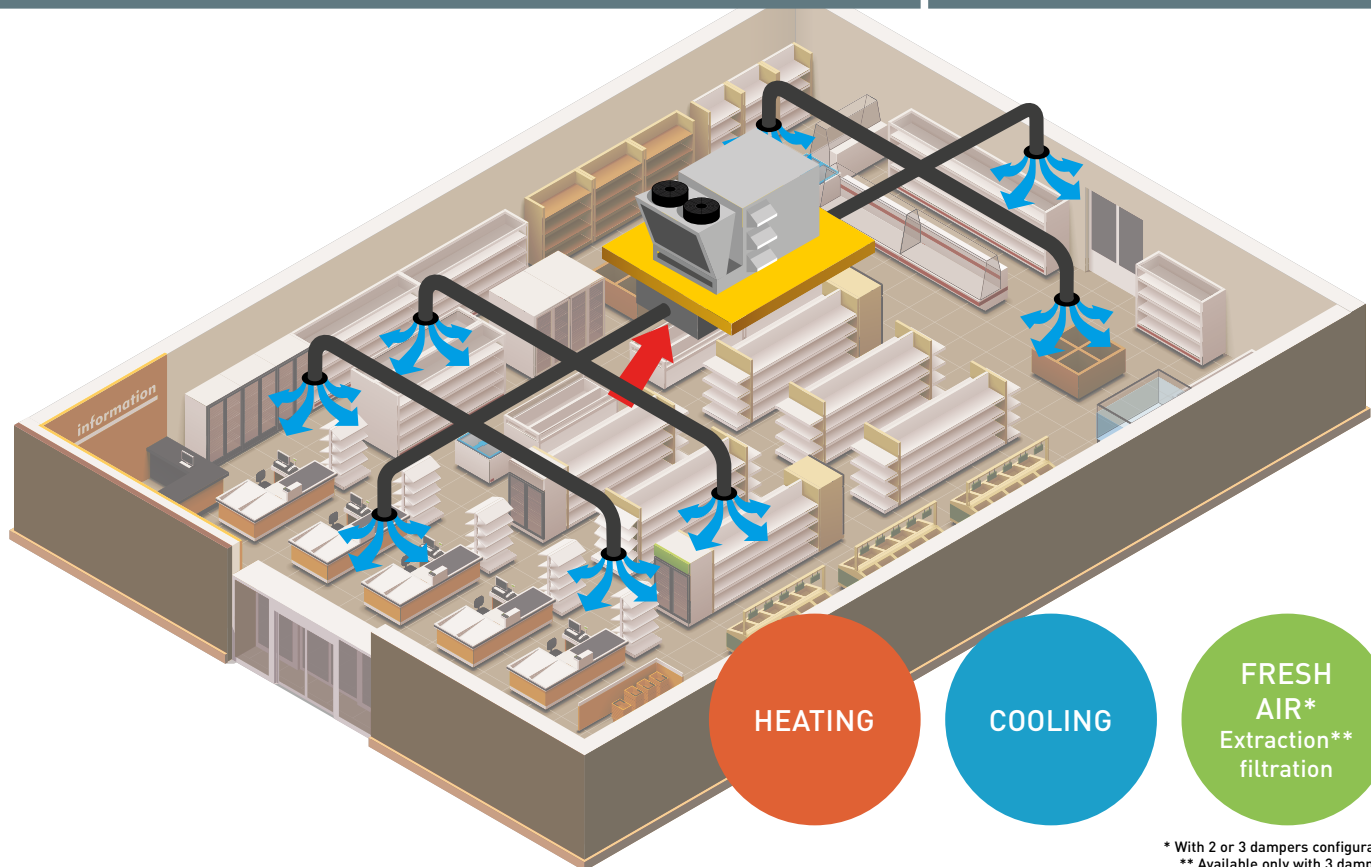
R32 Rooftop units.

Extension of the rooftop range with R32 refrigerant.

2 sizes (40-50).

1 chassis.

- Low energy consumption EC indoor fans
- EC outdoor fan (option)
- Cooling only and heat pump versions
- Wide operating limits: from -15 °C to +50 °C OAT
- Very compact unit
- Double skin (standard)
- Many aerodynamic configurations
- Dehumidification
- Fresh air preheating
- Air quality management (option)



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



Self-contained solution,
compact and mono-bloc.



Capacity range
from 40 to 220 kW.

R410A
R32

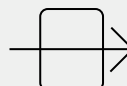
Refrigerants:
R410A / R32.

HIGH SEER
HIGH SCOP

High SEER
and SCOP.

HIGH
ESP

Very high external static
pressure.

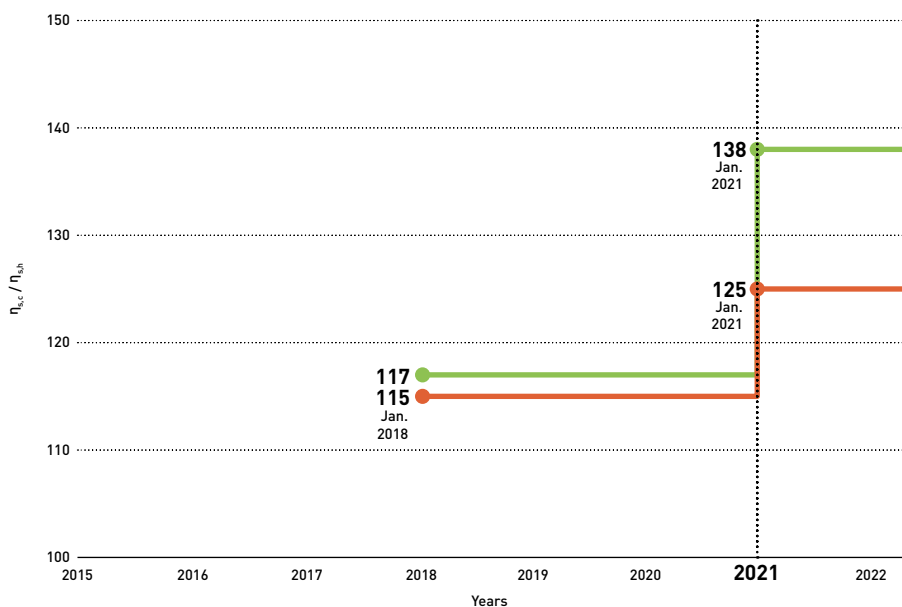


Extractible
drain pan.



Many configurations and
options.

Ecodesign



Air to air rooftops cooling only.

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

Air to air rooftops reversible.

Minimum η_{ah} 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))	Dimension LxHxW (mm)
NEW ECOi-RT-Z 40-50 C · R32 P. 104	40	40,80	7500	—	2484 x 1652 x 1850
	50	50,50	9200	—	2484 x 1652 x 1850
ECOi-RT C · R410A P. 112	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 reversible

Page	Size	Cooling and heating capacity (kW)	Nominal air flow (m³/h)	Sound power (lwo - dB(A))	Dimension LxHxW (mm)
NEW ECOi-RT-Z 40-50 H · R32 P. 114	40	40,80 52,00	7500	—	2484 x 1652 x 1850
	50	50,50 53,00	9200	—	2484 x 1652 x 1850
ECOi-RT-Z 105-140 H · R32 P. 116	105	106,0 106,0	19200	79,8	3740 x 2150 x 2285
	120	119,0 117,0	21500	79,8	3740 x 2150 x 2285
	140	139,0 142,0	25500	86,1	3740 x 2150 x 2285
ECOi-RT H · R410A P. 118	55	48,1 50,7	9720	80	3250 x 1800 x 2030
	65	61,0 59,7	11500	83	3250 x 1800 x 2030
	80	76,7 76,6	14300	80	3250 x 1800 x 2030
	95	87,2 90,7	17500	85	3740 x 2110 x 2285
	105	107,8 107,0	19200	85	3740 x 2110 x 2285
	120	116,3 117,1	21500	87	3740 x 2110 x 2285
	140	137,9 148,7	25500	91	3740 x 2110 x 2285
	160	160,1 157,9	28000	91	5505 x 2110 x 2285
	190	191,2 187,3	30000	92	5505 x 2110 x 2285
	210	212,6 214,4	32000	94	5505 x 2110 x 2285

* Heat pump version with EC fans.

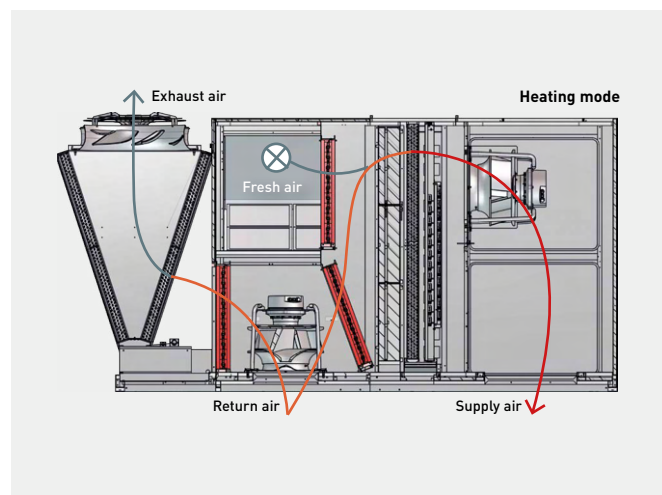
Energy recovery system configurations

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.



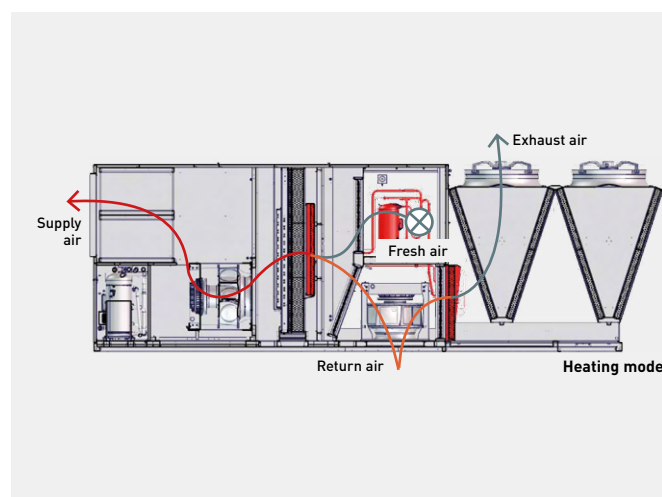
TRECO - thermodynamic energy recovery (3 dampers)

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.

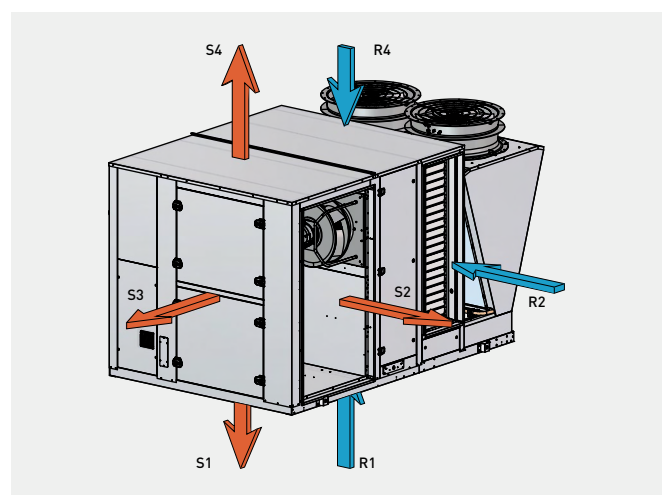
** TRECO is not available for the R32 rooftops.



Supply and return air configurations

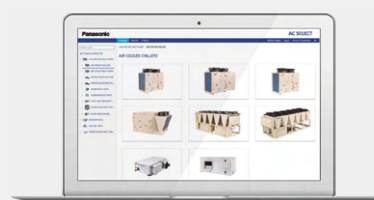
Supply air	S1 bottom side supply air
	S2 left side supply air
	S3 front side supply air
	S4 top side supply air
Return air	R1 bottom side return air
	R2 left side return air
	R4 top side return air ¹⁾

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



AC SELECT.

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





ECOi-RT-Z 40-50 C/H · R32

Rooftop cooling only and reversible units.

Cooling capacity: 40,8 to 50,5 kW.

Heating capacity: 52,0 to 53,0 kW.

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

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

R32
REFRIGERANT

Coming soon. **Summer 2025**



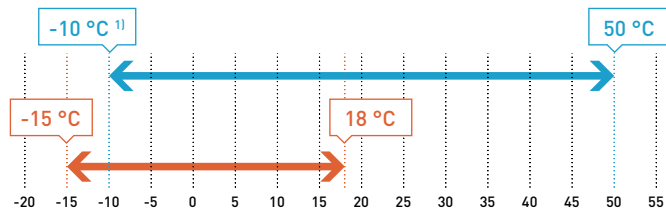
New **2025**

Operating limits

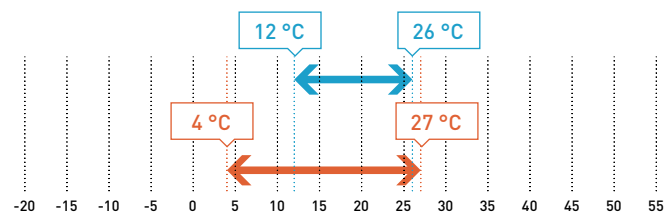
To be confirmed with AC SELECT:

<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 - return EC exhaust fan included
Adjustable roof curb
Anti-vibration mounts
Clogged filter sensor (1 or 2 stages)
Compressor soft starter
Container transportation compatibility
Dehumidification function
Electrical heater 18, 27 or 36 kW
Preheater 27 or 36 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 aeraucic configurations
Room temperature sensor
Sensors (enthalpy, CO ₂)
Smoke detector
Supply EC LPF plug fans

The range at a glance

- 2 versions: C (cooling only) and H (reversible)
- 2 sizes
- SEER up to 4,35 and SCOP up to 3,56
- Nominal air flow from 19200 to 25500 m³/h
- Additional heaters & preheater available
- 3 dampers configuration including EC exhaust fan

Advantages

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

Equipment

- 1 refrigerant circuit with tandem of compressors. The circuit comprises 2 Scroll compressors in tandem, indoor and outdoor coils, 4 way reversing valve, filter dryer, sight glass, electronic expansion valve, high and low pressure switches, defrosting pressure switch, and temperature sensors
- 2 Scroll compressors 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 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 RTU, Modbus TCP/IP, BACnet IP or BACnet MSTP 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 coil is largely dimensioned to optimise performance and defrost cycles. It can also be equipped with a protective grille in option to prevent shocks - Bluefin treatment
- The unit casing is of heavy duty galvanized steel, painted with a special anti-corrosion process (RAL 9001). The complete unit is covered with double skin panels to ensure perfect thermal insulation. For full unit access, all service panels are removable. Under the indoor heat exchanger, an extractable condensate drain pan allows hygienic cleaning
- The indoor fans are plug fan type with EC motors
- A safety ventilation system ensures venting of the refrigerant gas to atmosphere in case of leak



Technical features

Size				
ECOi-RT-Z 40-50 H - cooling only			40	50
Cooling capacity ¹⁾	kW		40,8	50,5
Input power ¹⁾	kW		11,7	15,6
EER ¹⁾			3,49	3,24
Pdesign ^{2) 3)}	kW		40,8	50,5
SEER ^{2) 3)}			4,28	4,24
Energy efficiency class ^{2) 3)}	A+ to E		B	B
η _{s,c} ^{2) 3)}			168,3	166,7
ECOi-RT-Z 40-50 H - reversible				
Cooling capacity ¹⁾	kW		40,8	50,5
Input power ¹⁾	kW		11,7	15,6
EER ¹⁾			3,49	3,24
Pdesign ^{2) 3)}	kW		40,8	50,5
SEER ^{2) 3)}			4,28	4,24
Energy efficiency class ^{2) 3)}	A+ to E		B	B
η _{s,c} ^{2) 3)}			168,3	166,7
Heating capacity ¹⁾	kW		52,0	53,0
Input power ¹⁾	kW		11,3	14,7
COP ¹⁾			3,72	3,61
Pdesign ^{2) 3)}	kW		52,0	53,0
SCOP ^{2) 3)}			3,44	3,42
Energy efficiency class ^{2) 3)}	A+ to E		B	B
η _{s,h} ^{2) 3)}			134,4	133,6
Electrical data				
Power supply	Voltage	V	400	400
	Phase		Three phase	Three phase
	Frequency	Hz	50	50
Refrigerant and compressors				
Number of refrigerant circuits			1	1
Compressors	Number / type		2 / Scroll	2 / Scroll
Mounting type			Tandem	Tandem
Capacity steps	%		0 / 50 / 100	0 / 50 / 100
Indoor coil				
Coil type			Copper tubes and aluminium fins	Copper tubes and aluminium fins
Outdoor coil				
Coil type			Copper tubes and aluminium fins	Copper tubes and aluminium fins
Indoor fans - EC type				
Fan type			Backward curved centrifugal	Backward curved centrifugal
Number of fans			2	2
Air flow rate	Min. / Nominal / Max.	m³/h	7500	9200
Outdoor fans				
Fan	Number / type		2 / Axial	2 / Axial
Dimension and weight				
Dimension	L x W x H	mm	2484 x 1850 x 1652	2484 x 1850 x 1652
Weight (without option)		kg	694	712

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

R32

REFRIGERANT

HIGH SEER

3,82

HIGH SCOP

3,56

ErP



EC MOTOR GREEN VENTILATION



SCROLL COMPRESSOR



VERY HIGH PERFORMANCE



ECOi-RT-Z 105-140 H · R32

Rooftop reversible 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.

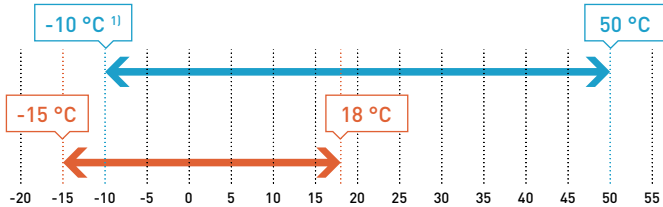
R32
REFRIGERANT



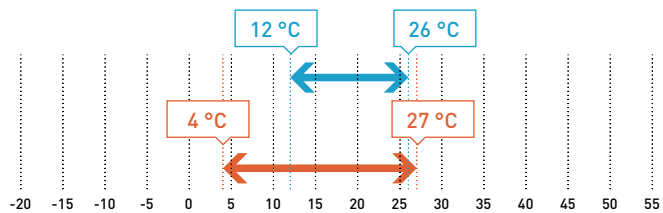
Operating limits

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).

The range at a glance

- Reversible 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, completely closed in a separate compartment to reduce noise level. Each circuit comprises of 1 Scroll compressor, 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 anti-corrosion process (RAL 9001). 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

ECOi-RT-Z 105-140 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



Technical features

Size		105	120	140
ECOi-RT-Z 105-140 H - reversible		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)}	A+ to E	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)}	A+ to E	B	B	B
η_{s,h} ^{2) 3)}		131	130	130
Electrical data				
Power supply	Voltage	V	400	400
	Phase	Three 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	Min. / Nominal / Max.	m ³ /h 15360 / 19200 / 23040	17200 / 21500 / 25800	20400 / 25500 / 30600
Motor power	kW	4,23	4,60	5,72
Outdoor fans				
Fan	Number / type	2 / Axial	2 / Axial	2 / Axial
Motor power	kW	1,51	1,51	1,51
Sound levels				
Sound power	dB(A)	79,8	79,8	86,1
Supply sound power	dB(A)	84,2	84,2	91,3
Sound pressure at 10 m	dB(A)	48,8	48,8	55,1
Dimension and weight				
Dimension	Length total / floor	mm 3740 / 3295	3740 / 3295	3740 / 3295
	Width / Height	mm 2285 / 2150	2285 / 2150	2285 / 2150
Weight (without option)	kg	1685	1805	1855

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

Accessories and options

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

Accessories and options

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, CO₂)
 Smoke detector
 Supply EC LPF plug fans

Accessories supplied loose

P-575505 Kit adjustable roof curb S1R1 - 0/2 Dampers without gas





ECOi-RT C/H · R410A

Rooftop cooling only and reversible units.

Cooling capacity: 48,1 to 219,1 kW.

Heating capacity: 50,7 to 214,4 kW.

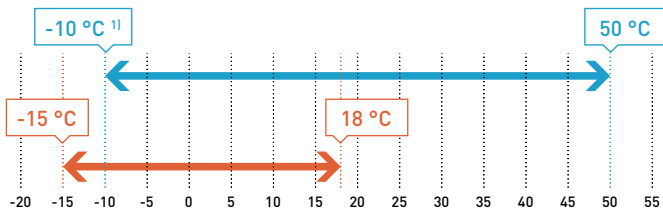


Operating limits

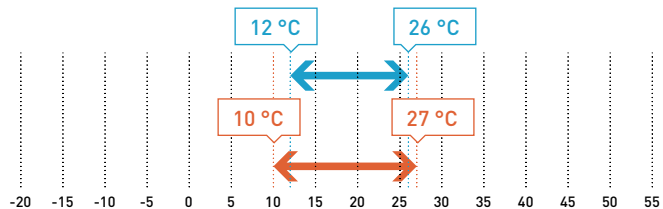
To be confirmed with AC SELECT:

<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
Anti-vibration mounts
Clogged filter sensor (1 or 2 stages)
Compatible container transportation
Compressor soft starter
EC or EC HP plug fan
Electric heaters
2-dampers configuration including free-cooling/free-heating functions
Epoxy treatment (indoor/outdoor coils)
Fan speed control
G4, G4+F7 or G4+F9 filters
Gas heater

Accessories and options

Hot water coil
Local additional remote keyboard
Many aeraulic configurations (bottom, side, front, top)
Modbus / BACnet
RECO or TRECO energy recovery systems including 3-dampers and exhaust fan
FRECO energy recovery system
Room temperature sensor
Sensors (VOC, enthalpy, CO ₂)
Smoke detector

Accessories supplied loose

P-372062	Kit adjustable roof curb S1R1 - 0/2 dampers with/without gas for sizes 55-80
P-575505	Kit adjustable roof curb S1R1 - 0/2 dampers with/without gas for sizes 95-140
P-575506	Kit adjustable roof curb S1R1 - 0/2 dampers without gas for sizes 160-210
P-374372	Kit adjustable roof curb S1R1 - 0/2 dampers with gas for sizes 160-210
P-372627	Kit adjustable roof curb S1R1 - 3 dampers with/without gas for sizes 55-80
P-372628	Kit adjustable roof curb S1R1 - 3 dampers with/without gas for sizes 95-140
P-372629	Kit adjustable roof curb S1R1 - 3 dampers without gas for sizes 190-210

The range at a glance

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

Advantages

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

Equipment

- 2 refrigerant circuits for an optimised defrost logic, 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 reversible type
- The unit casing is of heavy duty galvanized steel, painted with a special anti-corrosion process (RAL 9001). 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)}	A+ to E	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 - reversible	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	3,52	3,63	3,52	3,55	3,52	3,52	3,80	3,82	3,65
Energy efficiency class ^{2) 3)}	A+ to E	B	C	B	C	B	B	B	B	B	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	3,41	3,52	3,41	3,52	3,43	3,47	3,42	3,45	3,42
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	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
Start intensity (with soft starter)	A		69,96	85,68	113,60	125,40	139,20	152,40	185,40	198,10	203,40
Refrigerant and compressors											
Number of refrigerant circuits			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
Mounting type			Single	Single	Single	Single	Single	Single	Single	Tandem	Tandem
Capacity steps	%		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 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
Number of rows			3	3	4	3	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
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
Number of fans			1	1	2	2	2	2	2	2	2
Air flow rate	Minimum	m ³ /h	7760	9200	11440	14000	15600	17200	20400	24000	27500
	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	38400
Motor power	kW		3,5	5,7	5,8	7	7	11,4	11,4	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
Number of rows			2	2	3	2	3	3	3	2	3
Front surface	m ²		0,76	1,01	1,01	1,50	1,50	1,50	1,50	2,70	2,70
Outdoor fans											
Fan type			Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Number of fans			2	2	2	2	2	2	4	4	4
Diameter	mm		630	710	710	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
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
Dimension 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
Height		mm	1800	1800	1800	2110	2110	2110	2110	2110	2110
Weight (without option)		kg	1085	1155	1225	1470	1637	1757	1787	2350	2555

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.
Eurovent certification from size 55 to 95.



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.

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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.

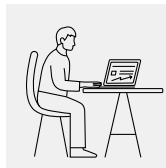
Panasonic offers a wide range of service agreements, like Panasonic Service+ for a maximised product lifetime. Leave the care of your Panasonic products to the experts. In the unlikely event that something goes wrong, trust one of our qualified and Panasonic trained experts to get things back on track.



Warranty.

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