## **Panasonic**

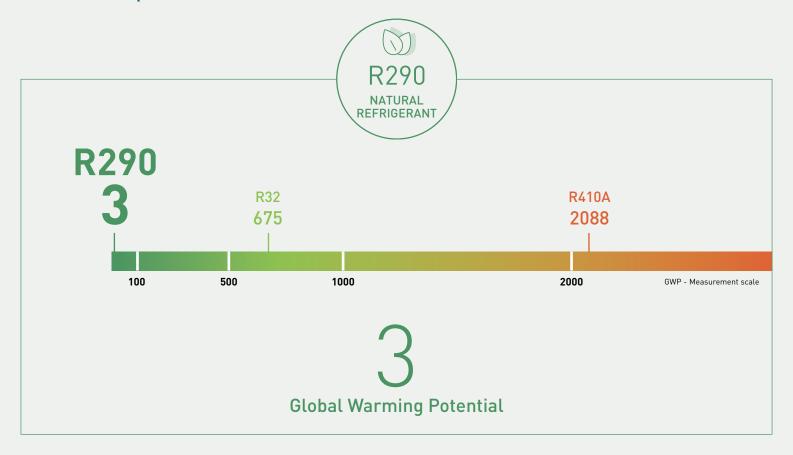
# AIR TO WATER REVERSIBLE HEAT PUMPS





## Contributing to a decarbonised society.

ECOi-W AQUA-G BLUE range is industry leading commercial air to water heat pumps with R290 natural refrigerant. R290 has a GWP of 3, it is a green alternative solution for any commercial projects. It delivers outstanding performance, aligning with Panasonic vision of a carbon-free society and our GREEN IMPACT plan.



## A revolutionary solution.

Introducing a revolutionary solution for sustainable cooling and heating needs, EC0i-W AQUA-G BLUE powered by R290, a natural refrigerant. It delivers both sustainability and efficiency in one innovative package.

#### ECOi-W AQUA-G BLUE H 50 - 80







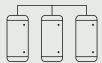
50 kW

60 kW

70 - 80 kW



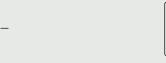
Natural refrigerant R290 with GWP 3.



**DHW Managements.** 



Reliable quality.



Scroll compressors.



High seasonal efficiency.

SEER

MAX 4,413



High energy efficiency class.





Max. 70 °C leaving water temperature.



Quiet operation.



HIGH HIGH

**SCOP** 

MAX 3,92]

Boost the capacity up to 480 kW.



ECOi-W Cloud. Remote access & maintenance.

The future of efficient commercial air to water heat pumps.



#### **Panasonic**

## **Outstanding efficiency.**

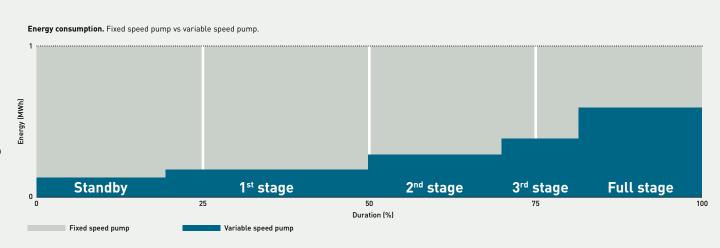
Efficiency is the key to unlocking a more sustainable and cost-effective future. EC0i-W AQUA-G BLUE is designed to deliver exceptional performance that maximises energy savings and minimises environmental impact.



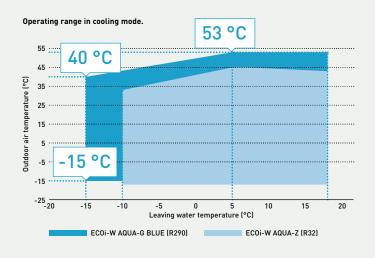
1) Size 50. According EN14825 and Following COMMISSION REGULATION (EU) 2016/2281.2) Size 70. According EN14825 and Following COMMISSION REGULATION (EU) No 813/2013. 3) Scale A+++ to D. According EN14825 and Following COMMISSION REGULATION (EU) No 813/2013.

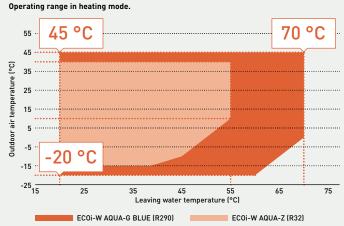
#### Variable speed pump.

ECOi-W AQUA-G BLUE can also be equipped with a variable speed pump that automatically adjusts its speed according to the required capacity. Compared to a fixed speed pump, and according to the operating profile of a pump working at partial load, the annual energy consumption of the pump can be reduced by up to 70%!



## **Extended operating limits.**





#### Cooling mode.

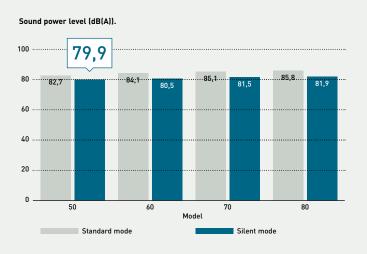
A water outlet temperature of -15 °C ensures optimal operation temperature for process equipment in factories.

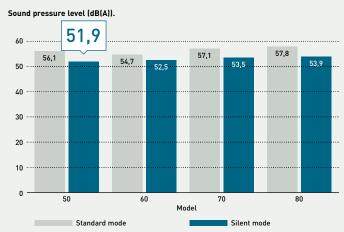
#### Heating mode.

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.





#### Silent mode.

Silent mode with an impressively low sound power level of only 79.9 dB(A), pressure level of only 51.9 dB(A). ECOi-W AQUA-G BLUE provides the perfect balance of efficiency and silent operation.

An optional compressor box is available to provide an additional level of noise reduction.

## Invest in quality. Prioritise safety. Choose Panasonic.

Panasonic does not compromise on product quality, safety, durability in order to provide the ultimate comfort when you need it most. Special safety measurements are equipped for R290 refrigerant. Experience the difference of ECOi-W AQUA-G BLUE with R290 refrigerant and discover the true meaning of comfort without compromise.

100%
QUALITY
QUALITY CERTIFIED
BY PANASONIC

#### 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.

## Safety optimisation.

- · Ventilation system.
- Air/refrigerant separator.
- Sealed electrical box.



#### Ventilation system.

If R290 is detected by the leak detector, the unit stops running immediately.

In addition, a self-contained ventilation system (for size 50) or the unit fans (for sizes 60/70/80) ensure safe dispersion of refrigerant to the atmosphere.



#### Air/refrigerant separator

This separator is an insurance that separates refrigerant from the water flow in case of heat exchanger failure.

#### ECOi-W AQUA-G BLUE H 50 - 80

With EC fan			50	60	70	80
			P-AQAG0050HA	P-AQAG0060HA	P-AQAG0070HA	P-AQAG0080HA
Cooling capacity 1]		kW	48,2	56,1	64,9	74,1
Input power 1]		kW	15,0	19,0	21,6	25,0
EER 1)			3,20	3,00	3,00	3,00
SEER 2)			4,40	4,30	4,30	4,20
n <sub>s,c</sub> <sup>2)</sup>		%	171,9	168,9	169,4	165,4
Heating capacity 3)		kW	49,2	61,1	73,5	83,6
Input power 3)		kW	15,6	18,6	21,7	24,9
COP 3)			3,2	3,3	3,4	3,4
SCOP 4)			3,70	3,70	3,90	3,80
n <sub>s,h</sub> 4)		%	143,7	146,8	151,8	150,5
Energy efficiency class (SCOP) 4)			A+	A+	A++	A++
SCOP <sub>MT</sub> 4)			3,10	3,10	3,30	3,20
n <sub>s,hMT</sub> <sup>4)</sup>		%	121,4	122,7	127,3	126,0
Energy efficiency class (SCOP <sub>MT</sub> ) 4)			A+	A+	A++	A++
Sound power	Standard	dB(A)	82,7	84,1	85,1	85,8
	Silent	dB(A)	79,9	80,5	81,5	81,9
Sound pressure 5)	Standard	dB(A)	56,1	54,7	57,1	57,8
	Silent	dB(A)	51,9	52,5	53,5	53,9
Dimension without tank	HxWxD	mm	1730×2215×1032	2011 x 2180 x 1160	2030 x 2180 x 1160	2030 x 2180 x 1160
Dimension with tank	HxWxD	mm	1730 x 2215 <sup>61</sup> x 1032	2011 x 2680 x 1160	2030 x 2680 x 1160	2030 x 2680 x 1160
Refrigerant (R290)		kg	4,50	4,80	5,30	6,80
GWP		CO₂ eq.	3 (100 years)	3 (100 years)	3 (100 years)	3 (100 years)
Number of refrigerant circuit			1	1	1	1
Compressors						
Number			2	2	2	2
Туре			Scroll	Scroll	Scroll	Scroll
Part load steps		%	50/100	40/60/100	40/60/100	50/100
Water connections						
Туре			Male gas threaded	Male gas threaded	Male gas threaded	Male gas threaded
Inlet - diameter		Inch	1 1/4	2	2	2 1/2
Outlet - diameter		Inch	1 1/4	2	2	2 1/2
Buffer tank (option)						
Volume		L	200	300	300	300

<sup>1)</sup> According to EN14511: chilled water inlet/outlet temperature: 12/7 °C, outdoor ambient temperature 35 °C DB. 2) According to EN14825 and Following COMMISSION REGULATION (EU) 2016/2281. 3) According to EN14511: warm water inlet/outlet temperature: 40/45 °C, outdoor ambient temperature 7 °C DB/6 °C WB.

#### Boost the capacity up to 480 kW.

- · Up to 6 units can be connected.
- Plug & play cascade controller available.



<sup>4)</sup> According to EN14825 and following COMMISSION REGULATION (EU) No 813/2013. 5) Sound pressure levels calculated at 10 meters. Sound pressure levels refer to ISO 3744 standard, parallelepiped shape. 6) Tank is external to the unit chassis.

## **ECOi-W Cloud.**

Remote access in real time to optimise the service and maintenance work. ECOi-W Cloud helps you to decrease your energy consumption. Reporting and graph visualisation up to 300 variables.





**Discover EC0i-W Cloud** 



#### **AC SELECT**

The selection of a model from our hydronic range is made with the AC SELECT software.

Panasonic's online selection software provides a simple and fast tool to match commercial chillers and heat pumps to the exact requirements of the application.



Get it on ProClub



# **Panasonic**

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

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