Panasonic

Heating & Cooling

HEATING OPTIMISED AIR TO WATER
COMMERCIAL HEAT PUMPS

ECOi-W AQUA-G EVO Series



ECO i-W

Panasonic

Unmatched innovation

MADE IN EUROPE

The AQUA-G EVO Series introduces a new generation of heating optimised solutions, combining inverter technology with natural refrigerant R290 to deliver superior efficiency and comfort in a compact design.

60 kW



80 / 100 kW



INVERTER SCROLL COMPRESSORS

ENERGY RATING

DHW MANAGEMENT

MAXIMUM 77 °C LEAVING WATER TEMPERATURE

SMALL FOOTPRINT

1) Scale A+++ to D. According to EN 14825 and Following COMMISSION REGULATION (EU) No 813/2013.



Future-ready R290 Commercial heat pumps

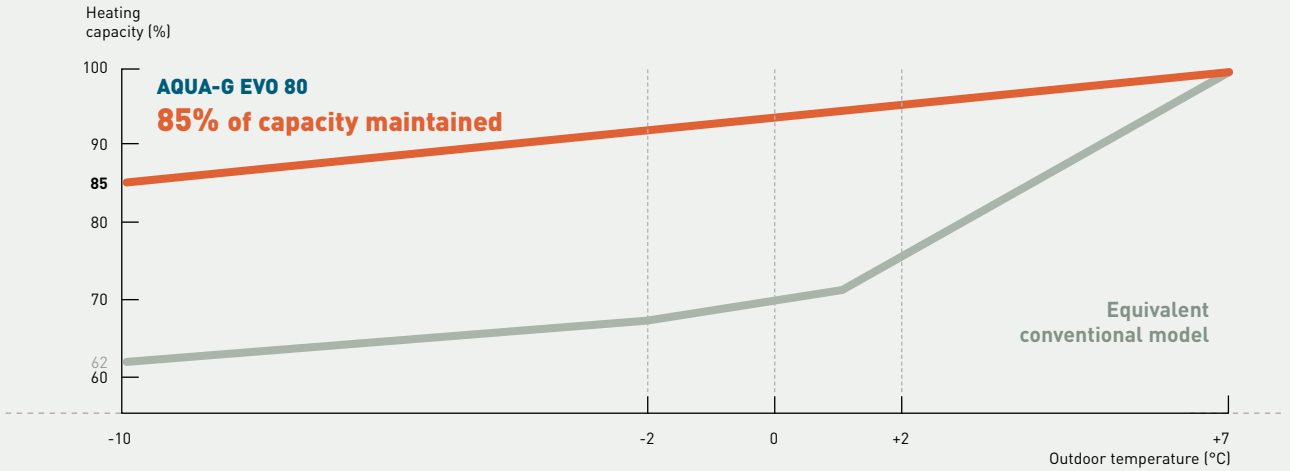
R290 GWP 0,02

Superior capacity in low ambient temperatures

Optimised heating performance in harsh winter conditions.

AQUA-G EVO Series provide comfort and efficiency thanks to high-performance components, enhanced refrigerant circuits and optimised defrost management.
At -10 °C outdoor air temperature, the units maintain approx. 85 % of the heating capacity measured at +7 °C*.
Conventional heat pumps typically maintain about 62 % of their heating capacity at the same outdoor temperature.

*Size 80.



*Heating capacity at water 40/45 °C.

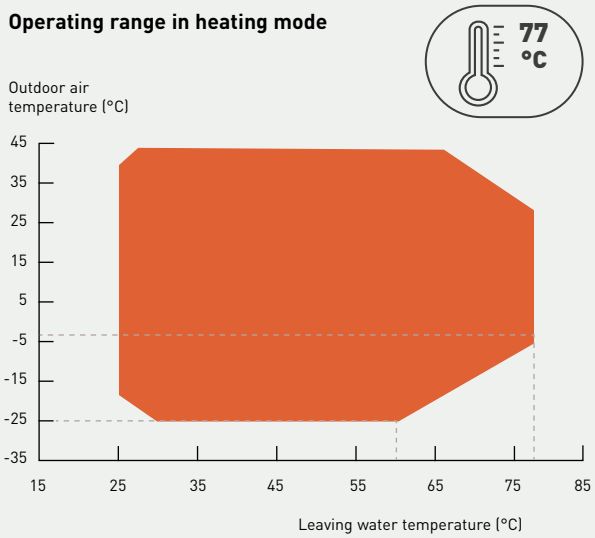
Extended operating range.

Domestic Hot Water production: leaving water temperature up to 77 °C.

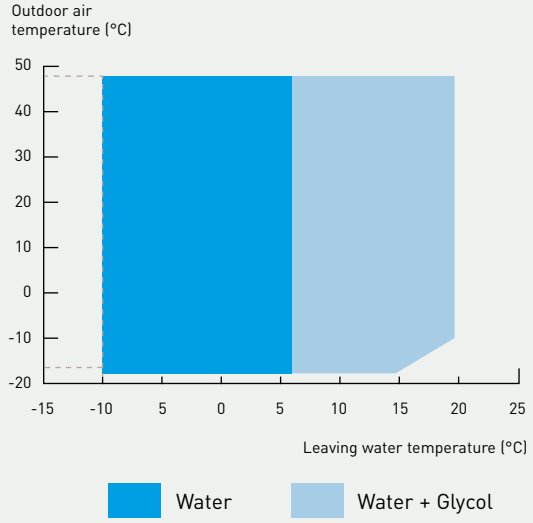
In heating: Exceptional operating limits: leaving water temperatures up to 77 °C at -4 °C outdoor air temperature and up to 60 °C operation down to -25 °C (with Polar option).

In cooling: Minimum water temperature down to -10 °C, and outdoor air temperature range from -18 °C to +48 °C.

Operating range in heating mode



Operating range in cooling mode




Ideal for gas boiler replacement
and DHW management.
ECO i - W

Flexible installation and exceptional scalability for any project

Boost capacity up to 800 kW in cascade configuration.

Manage up to 8 units with an Integrated Leader/Follower logic.

- Reliable system operation with intelligent unit management, which excludes units in alarm.
- Balanced operating hours across all units and compressors to ensure even usage.
- Optimized part-load operation and defrost management for enhanced overall performance.

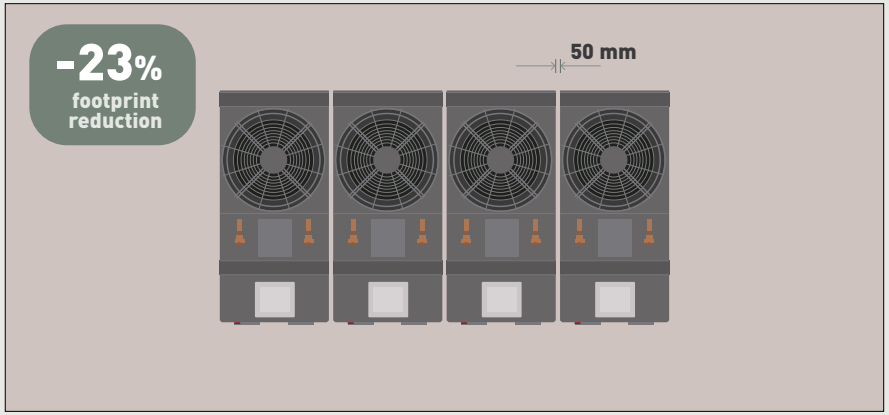


UP TO 8 UNITS - 800 KW

Minimal installation space with modular configuration.

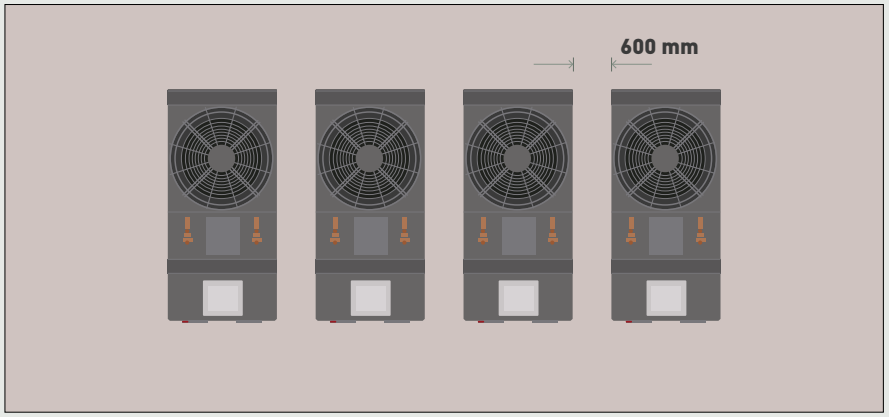
Up to 4 units to be installed side by side with minimal spacing. Save 23% of installation space compared to a non-modular configuration.

Modular configuration for space saving



Just **50 mm** spacing between units — up to 4 units

Standard cascade installations



Smart and user-friendly selection & spec-in tools.

AC SELECT

Configure your air conditioning solution at required conditions:

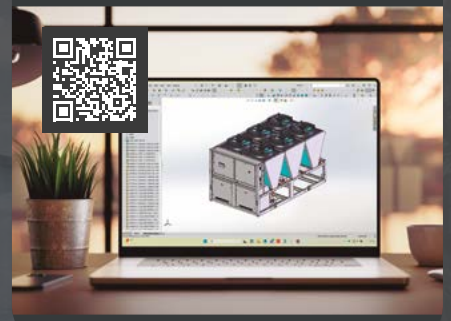
https://acselect.panasonic.eu/



OPEN BIM

BIM & AutoCAD Support

www.panasonicproclub.com



ECO i - W

Designed for reliable and stable operation

Inverter technology: reliable performances under variable load conditions.

Inverter compressor and inverter driven pump for high energy efficiency and stable temperature control, improving comfort and reducing energy consumption.

Advanced safety measurements for continuous and secure operation.

Safety ventilation system
If R290 is detected by the leak sensor, a dedicated safety sequence automatically activates, protecting the system and extracting the refrigerant outside the unit via an ATEX-certified fan.



Visual indicators and remote signaling
The unit communicates the detected threshold through visual indicator lights and a dry contact interface.





Molecular leakage detector
- Immunity to poisoning
- No field calibration needed
- Long life (+15 years without calibration)

Gas separator (field mounted)
Safety device to remove refrigerant from the water loop in case of water leak from the heat exchanger.

Commercial Smart Edge

Step into the future of HVAC management with Commercial Smart Edge by Panasonic.

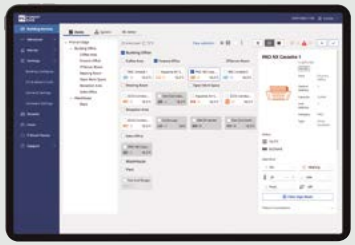
This solution brings flexible, scalable and intelligent control to commercial buildings of any size. Manage operations locally or remotely from any device, whether you oversee a single site or multiple locations.

COMPATIBLE WITH ENTIRE HVAC RANGE

SIMPLIFIED COMMISSIONING

OPTIMISED PLANT MANAGEMENT

ADVANCED ANALYTICS



P-SMART EDGE

P-Smart Edge*.

A powerful smart control platform designed for single-site installations, giving you seamless management of the complete Panasonic HVAC range.



P-Smart Nexus

P-Smart Nexus*.

An online multi-site control solution that provides remote, centralised supervision of all your locations worldwide.

*Edge controller box (PAW-CSE**) is required.



Comprehensive range of solutions for commercial applications

Minimise environmental impact and enhance energy efficiency in heating and cooling / Perfect integration with Flex Air fan coils ranges / Remote management with Commercial Smart Edge.





Flex Air Smart fan coils.
nanoe™ X and extended control compatibility.

nanoeX

Flex Air fan coils. High configuration flexibility.

Commercial Smart Edge.
Multi-sites monitoring and management of all Panasonic HVAC systems, 24/7.



P-Smart Nexus

Technical performance

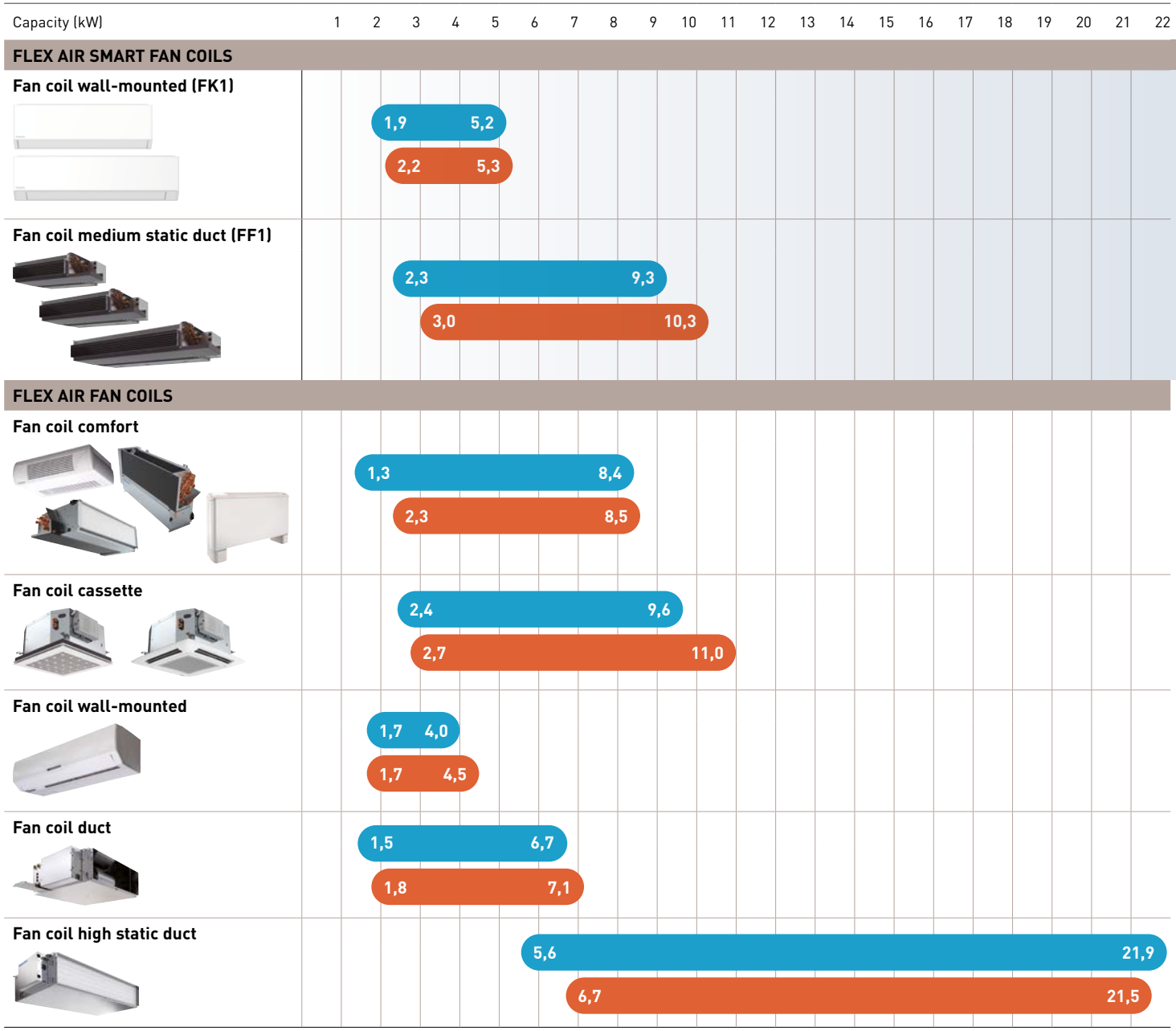
Power supply	Voltage	V	400	400	400
	Phase		Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50
Size			**60**	**80**	**100**
ECOi-W AQUA-G EVO 60-100 H - heat pump			**P-AQAVG0060HA**	**P-AQAVG0080HA**	**P-AQAVG0100HA**
Heating capacity (A 7 °C, W 40/45 °C) [1]		kW	60,9	84,1	102,0
Input power (A 7 °C, W 40/45 °C) [1]		kW	17,6	24,2	30,3
COP (A 7 °C, W 40/45 °C) [1]			3,46	3,48	3,37
Heating capacity (A 7 °C, W 30/35 °C) [2]		kW	62,2	86,8	105,0
Input power (A 7 °C, W 30/35 °C) [2]		kW	14,9	20,6	25,7
COP (A 7 °C, W 30/35 °C) [2]			4,18	4,21	4,09
SCOP LT [3]			**4,21**	**4,27**	**4,38**
$\eta_{s,h}$ LT [3]		**%**	**165,4**	**167,8**	**172,4**
Heating capacity (A 7 °C, W 47/55 °C) [4]		kW	59,3	75,9	99,7
Input power (A 7 °C, W 47/55 °C) [4]		kW	20,0	26,1	36,1
COP (A 7 °C, W 47/55 °C) [4]			2,97	2,91	2,76
SCOP MT [5]			**3,34**	**3,39**	**3,47**
$\eta_{s,h}$ MT [5]		**%**	**130,5**	**132,7**	**135,7**
Cooling capacity (A 35 °C, W 12/7 °C) [6]		kW	51,5	68,6	86,1
Input power (A 35 °C, W 12/7 °C) [6]		kW	19,4	24,9	32,5
EER (A 35 °C, W 12/7 °C) [6]			2,65	2,76	2,65
SEER [7]			**4,65**	**4,59**	**4,69**
$\eta_{s,h}$ [7]		**%**	**182,8**	**180,7**	**184,5**
Total EER (A 35 °C, W 23/18 °C)			3,24	3,46	3,26
Sound power (STD)		dB(A)	86,5	83,0	84,5
Sound pressure at 10 m (STD) [7]		dB(A)	54,5	51,0	52,5
Sound power (S)		dB(A)	81,0	80,0	80,5
Sound pressure at 10 m (S) [7]		dB(A)	49,0	48,0	48,5

Physical features

ECOi-W AQUA-G EVO 60-100 H - heat pump			**60**	**80**	**100**
Dimension	Height x Width	mm	1998 x 1116	1998 x 1116	1998 x 1116
	Length w/o / w water tank	mm	2385	3385	3385
Operating weight (STD)		kg	572	906	950
Refrigerant and compressors					
Number of refrigerant circuit			1	1	1
Compressor	Number / type		1 / Scroll	2/ Scroll	2 / Scroll
Capacity steps		%	25-100	25-100	25-100
Water connections					
Type of connections			Victaulic®	Victaulic®	Victaulic®
Inlet/outlet diameter		Inch	2	2 ½	2 ½
Buffer tank (option)					
Volume		L	Not available	230	230

1) According EN14511: intermediate water inlet/outlet temperature: 40/45°C, outdoor ambient temperature 7°C. 2) According EN14511: low water inlet/outlet temperature: 30/35°C, outdoor ambient temperature 7°C. 3) According EN14825 and Following COMMISSION REGULATION (EU) No 813/2013: low temperature application. 4) According EN14511: medium water inlet/outlet temperature: 47/55°C, outdoor ambient temperature 7°C. 5) According EN14825 and Following COMMISSION REGULATION (EU) No 813/2013: medium temperature application. 6) According EN14511: chilled water inlet/outlet temperature: 12/7°C, outdoor ambient temperature 35°C. 7) According EN14825 and Following COMMISSION REGULATION (EU) 2016/2281. 7) Sound pressure levels refer to ISO 3744 standard.

Complete your heat pump system with our fan coil solutions



*Data for fan coil comfort, cassette and duct EC/DC fan 2-pipe version. Data for fan coil high static duct AC fan / 2-pipe version.

FLEX AIR SMART FAN COILS

nanoe™X

A ENERGY EFFICIENCY CLASS

FK1 size 45/52 – FCEER – 2 pipes.
FF1 all sizes – FCEER/FCCOP – 2/4 pipes.

QUIET OPERATION

DC FAN

COMPATIBILITY WITH PACi NX/VRF CONTROLS



nanoe™X

Bringing nature's balance indoors

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

Abundant in nature, hydroxyl radicals (also known as OH radicals) have the capacity to inhibit pollutants, viruses, and bacteria to clean and deodorise. nanoe™ X technology can bring these incredible benefits indoors so that hard surfaces, soft furnishings, and the indoor environment can be a cleaner and more pleasant place to be.

Due to the ongoing innovation of our products, the specifications of this catalogue are valid barring typographic errors, and may be subject to minor modifications by the manufacturer without prior warning in order to improve the product. The total or partial reproduction of this catalogue is prohibited without the express authorisation of Panasonic Marketing Europe GmbH.

Panasonic®

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

Panasonic Marketing Europe GmbH
Panasonic Heating & Ventilation Air-Conditioning Europe
Hagenauer Strasse 43, 65203 Wiesbaden, Germany

EU-LFTAQUAGEV00926/01

www.eggeassociats.net