Panasonic

AQUAREA

NEW PANASONIC AQUAREA AIR TO WATER HEAT PUMP MONOBLOC J SERIES

Whether you are building a new home or retrofitting, Panasonic Aquarea has a solution for your project. Choose between the J Series 7kW and 9kW models for a compact solution, or the T-CAP 12kW and 16kW models for extreme conditions for a compact solution, or the T-CAP models for extreme and demanding conditions.

R32
NEW REFRIGERANT GAS

heating & cooling solutions

INVERTER+ | DHW | -20°C HEATING MODE | WATER FILTER WITH MAGNET | FLOW SENSOR | BOILER CONNECTION | SOLAR KIT | ADVANCED CONTROL | OPTIONAL WI-FI | BMS CONNECTIVITY | 5 YEARS COMPRESSOR WARRANTY

INTERNET CONTROL: Optional.

A++ ErP 55°C

Better efficiency & value for medium temperature applications.
Energy efficiency class up to A++ in a scale from A+++ to D.

A+++ ErP 35°C

Better efficiency & value for low temperature applications.
Energy efficiency class up to A+++ in a scale from A+++ to D.

A CLASS WATER PUMP AUTO SPEED

A class water pump.
Aquarea are built-in with A class energy efficiency water pump. High efficiency circulating the water in the heating installation.

5,08 COP HIGH PERFORMANCE

Higher performance and energy saving.
Improvement of SCOP * and cooling capacity vs conventional model.

-20°C CONSTANT HEATING T-CAP

Aquarea T-CAP for extremely low temperatures.
From 9 to 16 kW. If the most important aspect is to maintain nominal heating capacities even at temperatures as low as -7 °C or -20 °C, select the Aquarea T-CAP.

65°C OUTPUT WATER FLOW TEMPERATURE

65 °C output water.
Reaches water outlet temperature up to 65 °C.

THE AQUAREA J SERIES AIR TO WATER HEAT PUMP PROVIDES BOTH DOMESTIC HOT WATER AND HEAT FOR RADIATORS AND UNDERFLOOR HEATING FROM OUTDOOR UNITS.

Adapts to your home

The Panasonic J series is extremely flexible. Select from a range of capacities from 7 or 9kW to T-CAP 12 or 16kW, , all with the ability to reach a water temperature of 65°C. Whether it is a new build or retrofitting, the Aquarea range has a solution to suit your project.

Cost-saving solution

Based on Air to Water heat pump technology, Aquarea is highly efficient and environmentally friendly. It captures heat energy from the ambient air and transfers it to heat the water needed to warm your home, for domestic hot water and even to cool your home. This way, up to 80% of the heat energy required is taken from the ambient air - even in extremely low temperatures.

More comfort

The Aquarea Heat Pump is able to precisely control the temperature thanks to reliable Panasonic Inverter Compressors. Even in extreme weather conditions (-20°C), Aquarea warms your home effectively and efficiently. Aquarea can also cool your home in summer and bring hot water all year round, offering different modes to give the ultimate comfort.

Space-saving solution

Panasonic Aquarea Monobloc is the ideal space saving solution for any home as the unit does not require a separate hydrokit inside. Additionally, thanks to the unit's all-in-one design, all refrigerant is sealed in the outdoor unit, leaving only water pipes needed inside the property.

Why Panasonic?

Panasonic has more than 60 years of Heat Pump experience, having produced an exceptional amount of compressors. Quality is what Panasonic stands for and this is a key factor for succeeding in the global market.

AQUAREA T-CAP MONOBLOC J SERIES.
MORE SAVINGS, MORE EFFICIENCY AND MORE COMFORT.

Aquarea T-CAP for extremely low temperatures, refurbishment and innovation.
Ideal to ensure that the heating capacity is maintained even at very low temperatures. This line-up is able to maintain the heat pump output capacity until -20 °C outdoor temperature without the help of an electrical booster heater[1].

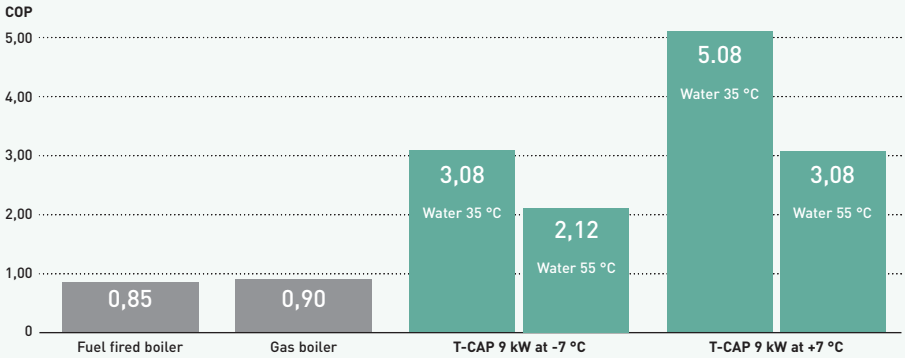
With Mono-bloc, the refrigerant circuit is sealed inside the outdoor unit, so there is no need to worry about the amount of refrigerant per room.

65 °C[2] water temperature possible.
By optimising the system and the refrigerant cycle, the unit can work under higher pressure and achieve a water temperature of 65°C.

1) 35ºC flow temperature.
2) In case of ΔT setting with remote controller is 15 °C and outdoor ambient temperature is 5 to 20 °C, 65 °C hot water temperature is possible. Even with the T-CAP series, capacity will drop when water temperature reaches 65 °C.

Higher efficiency compared to other heating systems

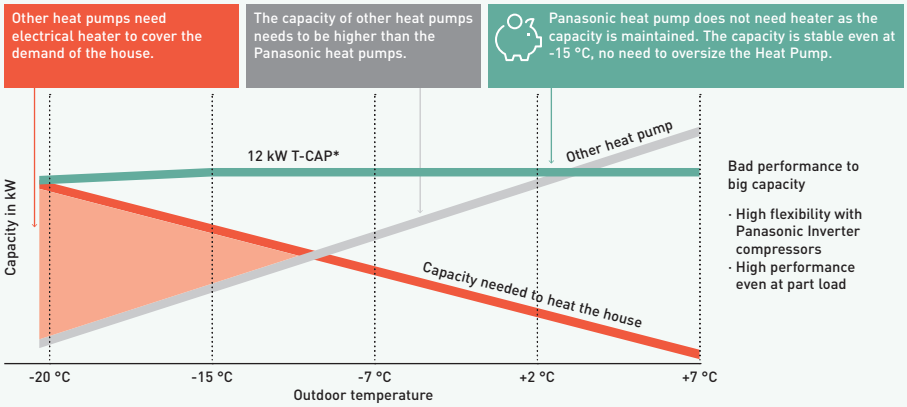
Panasonic heat pumps have a maximum COP of 5,08 at +7 °C which makes them much more efficient than other heating systems.
T-CAP is also extremely efficient, no matter what the outside temperature is.



No need to oversize to reach required capacity at low temperatures

Panasonic heat pumps can work in outdoor temperatures as low as -20 °C and maintain capacity without backup heating at -20 °C[1]. With other heat pumps, a larger capacity is required to achieve the same level of comfort at low temperatures.

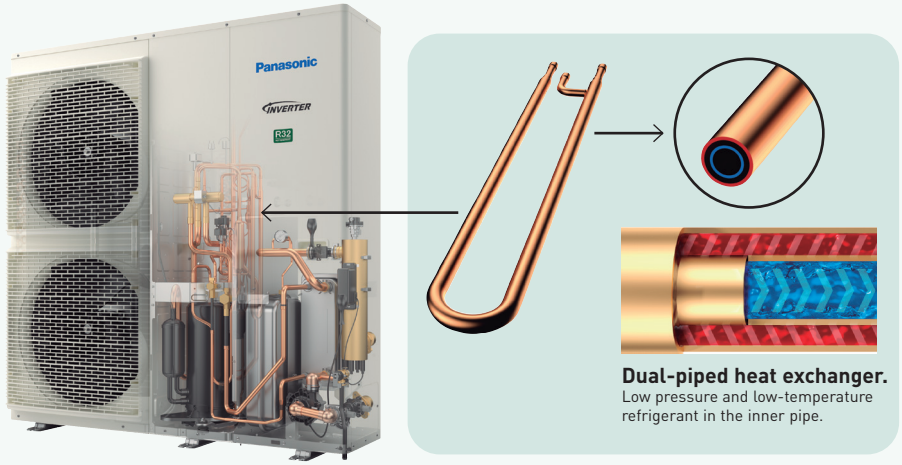
1) 35 °C flow temperature.



* 55 °C flow temperature. In case of 35 °C the capacity is mantained down to -20 °C.

How Aquarea T-CAP maintains performance even at -20 °C outdoors

Panasonic's patented technology can maintain heating capacity even in low outdoor temperatures through optimal control that comes from incorporating dual-piped heat exchanger into the refrigeration cycle.



Dual-piped heat exchanger.
Low pressure and low-temperature refrigerant in the inner pipe.

AQUAREA MONOBLOC J SERIES.
MORE SAVINGS, MORE EFFICIENCY AND MORE COMFORT.

The New Aquarea Monobloc J series heat pump is easy to install on new or existing installations, in all types of properties.
For a house with low temperature radiators or under-floor heating, our Aquarea Monobloc J series heat pump is a good solution. This solution can work as a stand-alone unit or can be combined with an existing gas or oil-fired heating system depending on requirements.

- High heating and cooling capacities, even at low outdoor temperatures
- A single outdoor unit with outstanding efficiency
- No hydrokit needed
- For new installations and low energy homes
- Outstanding efficiency and minimised CO_2 emission
- Optional Smartphone control
- Operation in cooling mode at outdoor temperatures as low as 10 °C

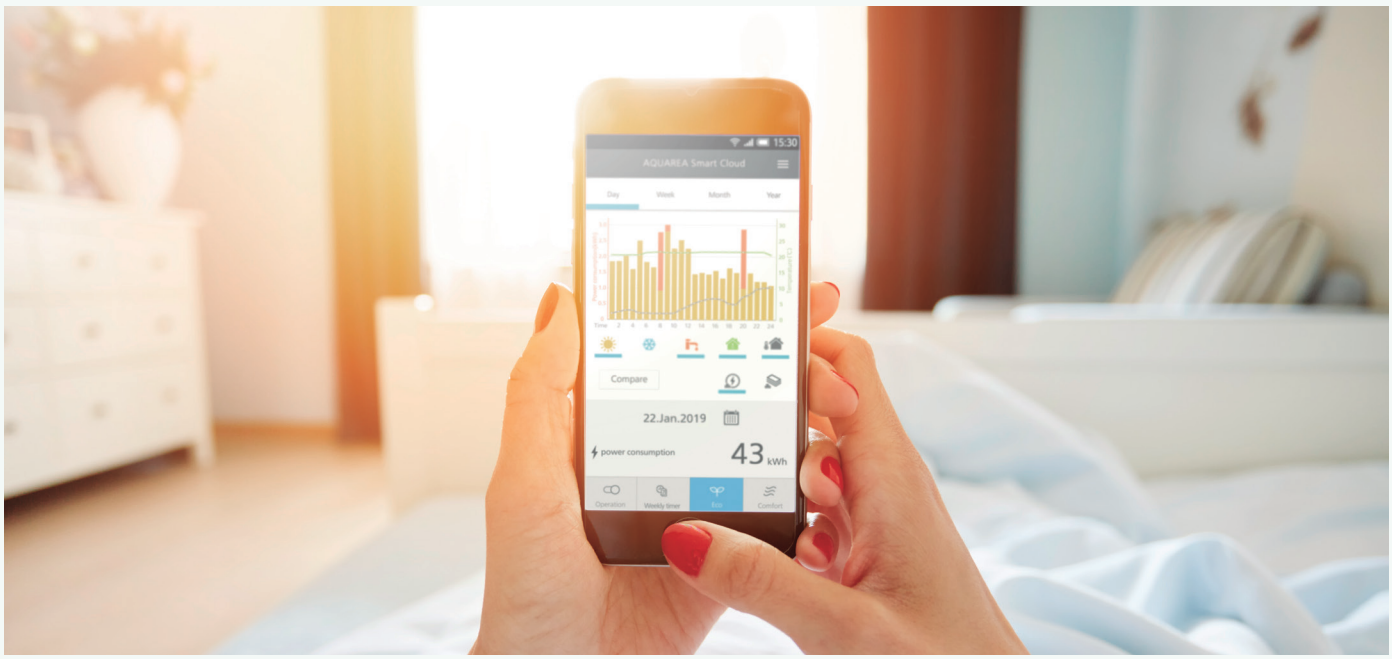
Technology for the future

R32 Refrigerant Gas: A 'small' change that changes everything
Panasonic recommends R32 because it is a more environmentally friendly solution. Compared to R22 and R410A, R32 has a very low potential impact on the depletion of the ozone layer and global warming.

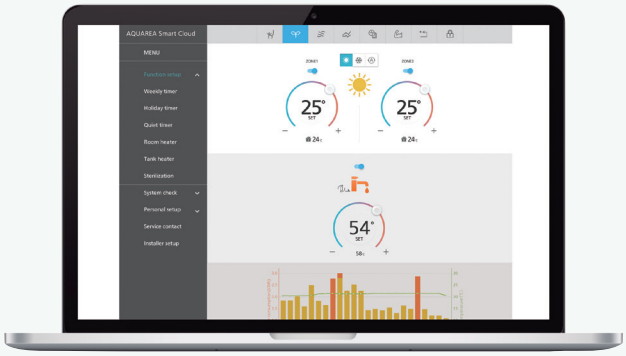
1. Installation innovation
- This refrigerant is 100% pure, which makes it easier to recycle and reuse

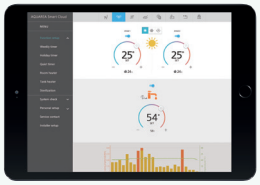
2. Environmental innovation
- Minimal impact on the ozone layer
- 75% Less impact on global warming vs R410A

3. Economic and energy consumption innovation
- Lower cost and greater savings
- Higher energy efficiency than R410A



AQUAREA SMART CLOUD: THE MOST ADVANCED HEATING CONTROL FOR TODAY AND FOR THE FUTURE.





WATCH DEMO

Aquarea Smart Cloud for end users

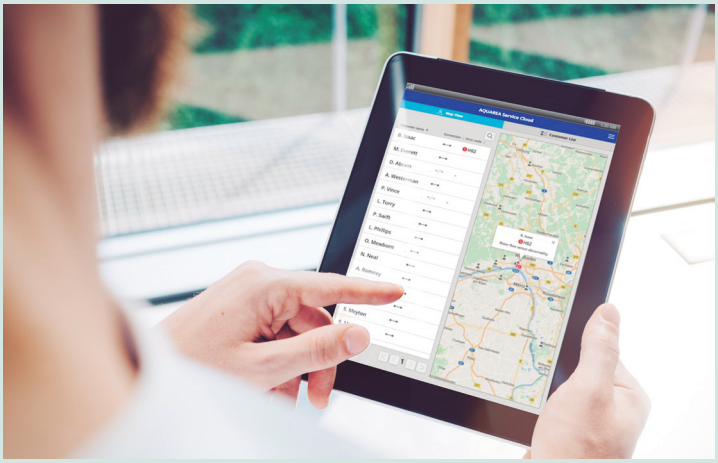
Easy and powerful energy management
The Aquarea Smart Cloud is much more than a simple thermostat for switching a heating device ON or OFF. It is a powerful and intuitive service for remotely controlling the full range of heating and hot water functions, including monitoring energy consumption.

How does it work?
Connect Aquarea J Generation system to the cloud using wireless LAN or a wired LAN Network. The user connects to the Cloud portal to remotely operate all unit functions and can also permit partners to access customised functions for remote maintenance and monitoring.

Aquarea Service Cloud for installers and maintenance

The real remote maintenance made simple: The Aquarea Service Cloud allows installers to remotely take care of their customer's heating system, saving time and money. It also shortens the response time, increasing customer satisfaction.

Advanced functions for remote maintenance with professional screens:
· Global view at a glance
· Error log history
· Full unit information
· Statistics always available
· Most settings available



* User interface image may change without notification.

ADVANCED REMOTE CONTROLLER

Aquarea remote controller is designed in harmony with the whole system, with optimised user interface and improved features.

The remote controller can be removed from the indoor unit and installed in the living room.

Quick menu	✔	
User menu	✔	
Installer / custom menu	✔	
Maintenance menu	✔	
Error reset	✔	
Internal thermostat	Zone 1	Zone 2
	✔	✔

Installer functions:
System setup, operation setup (including heating / cooling modes, ΔT setup), dry concrete mode.

End user functions:
Mode selection (including auto, powerful and quiet modes), weekly timer and energy monitoring,among others.

OPTIONAL ACCESSORIES

Aquarea Smart Cloud for remote control and maintenance through wireless or wired LAN.

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CZ-TAW1B

10 m extension cable for CZ-TAW1B.

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CZ-TAW1-CBL

Tank sensor with 20 m cable length.

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PAW-TS2

KNX interface for H Generation onwards (Intesis).

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PAW-AW-KNX-H

Modbus interface for H Generation onwards (Intesis).

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PAW-AW-MBS-H

Cascade manager for Aquarea Heat Pumps.

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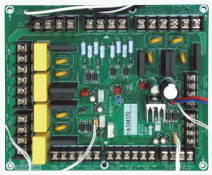
PAW-A2W-CMH-2



PCB for advanced functions in H and J Generations.

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CZ-NS4P

NEW PCB for advanced functions in K and L Generations.

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CZ-NS5P

Outdoor ambient sensor.

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PAW-A2W-TSOD

Zone room sensor.

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PAW-A2W-TSRT

Solar sensor.

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PAW-A2W-TSSO

Buffer tank sensor.
Zone water sensor PAW-A2W-TSHC is also required to operate buffer tank sensor.

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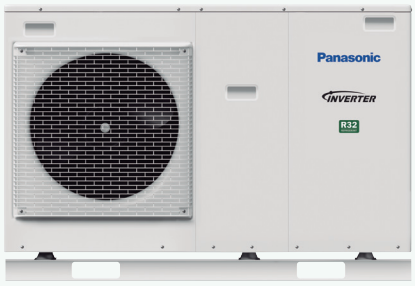
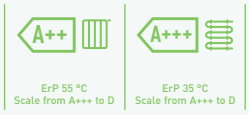
PAW-A2W-TSBU

New Aquarea Monobloc J series. Heating and Cooling • R32 refrigerant

· Optional Smartphone control
· Maximum hydraulic module output temperature: 60 °C
· High heating and cooling capacities, even at low outdoor temperatures
· Works at temperatures as low as -20 °C
· Operation in cooling mode at outdoor temperatures as low as 10 °C
· Built-in magnet filter for easy installation





CZ-TAW1
Cloud connection. For user control and installer remote maintenance.

			Single Phase Heating and Cooling				Three phase
Outdoor unit			**WH-MDC05J3E5**	**WH-MDC07J3E5**	**WH-MDC09J3E5**	**WH-MXC12J6E5-1**	**WH-MXC16J9E8-1**
Heating capacity / COP (A +7 °C, W 35 °C)		kW / COP	5,00 / 5,08	7,00 / 4,76	9,00 / 4,48	12,00 / 4,80	16,00 / 4,52
Heating capacity / COP (A +7 °C, W 55 °C)		kW / COP	5,00 / 3,01	7,00 / 2,82	8,95 / 2,78	12,00 / 3,05	16,00 / 2,86
Heating capacity / COP (A +2 °C, W 35 °C)		kW / COP	5,00 / 3,57	7,00 / 3,40	7,45 / 3,13	12,00 / 3,53	16,00 / 3,10
Heating capacity / COP (A +2 °C, W 55 °C)		kW / COP	5,00 / 2,27	6,30 / 2,16	7,00 / 2,12	12,00 / 2,42	16,00 / 2,07
Heating capacity / COP (A -7 °C, W 35 °C)		kW / COP	5,00 / 2,78	6,80 / 2,81	7,50 / 2,63	12,00 / 2,82	16,00 / 2,39
Heating capacity / COP (A -7 °C, W 55 °C)		kW / COP	5,00 / 1,85	6,30 / 1,86	7,00 / 1,80	12,00 / 2,00	16,00 / 1,71
Cooling capacity / EER (A 35 °C, W 7 °C)		kW / EER	5,00 / 3,31	7,00 / 3,06	9,00 / 2,71	12,00 / 2,90	14,50 / 2,84
Cooling capacity / EER (A 35 °C, W 18 °C)		kW / EER	5,00 / 5,05	7,00 / 4,73	9,00 / 4,25	12,00 / 3,95	16,00 / 3,75
Seasonal energy efficiency - Heating average climate (W35 °C / W55 °C)		ηs %	202 / 142	193 / 130	193 / 130	195 / 140	176 / 129
		SCOP	5,12 / 3,63	4,90 / 3,32	4,90 / 3,32	4,96 / 3,57	4,46 / 3,31
Energy class heating average climate (W35 °C / W55 °C)		A+++ to D	A+++ / A++	A+++ / A++	A+++ / A++	A+++ / A++	A+++ / A++
Seasonal energy efficiency - Heating warm climate (W35 °C / W55 °C)		ηs %	237 / 165	227 / 160	227 / 160	256 / 171	232 / 160
		SCOP	6,00 / 4,20	5,75 / 4,07	5,75 / 4,07	6,47 / 4,34	5,88 / 4,09
Energy class heating warm climate (W35 °C / W55 °C)		A+++ to D	A+++ / A+++	A+++ / A+++	A+++ / A+++	A+++ / A+++	A+++ / A+++
Seasonal energy efficiency - Heating cold climate (W35 °C / W55 °C)		ηs %	160 / 115	164 / 116	164 / 116	169 / 127	150 / 125
		SCOP	4,08 / 2,95	4,18 / 2,98	4,18 / 2,98	4,31 / 3,26	3,83 / 3,20
Energy class heating cold climate (W35 °C / W55 °C)		A+++ to D	A++ / A+	A++ / A+	A++ / A+	A++ / A++	A++ / A++
Sound power part load [1]	Heat	dB(A)	59	59	59	65	66
Sound power full load	Heat / Cool	dB(A)	64 / 65	68 / 67	69 / 68		
Dimension	H x W x D	mm	865 x 1283 x 320	865 x 1283 x 320	865 x 1283 x 320	1410 x 1283 x 320	1410 x 1283 x 320
Net weight		kg	99	104	104	140	150
Refrigerant (R32) / CO_2 Eq. [2]		kg / T	1,3 / 0,878	1,3 / 0,878	1,3 / 0,878	1,60 / 1,080	1,80 / 1,215
Water pipe connector		Inch	R 1¼	R 1¼	R 1¼	R 1¼	R 1¼
Pump	Number of speeds		Variable Speed	Variable Speed	Variable Speed	Variable Speed	Variable Speed
	Input power (Min / Max)	W	34 / 96	36 / 100	39 / 108	34 / 110	38 / 173
Heating water flow (ΔT=5 K. 35 °C)		L/min	14,3	20,1	25,8	34,4	45,9
Capacity of integrated electric heater		kW	3	3	3	6	9
Input Power	Heat	kW	0,985	1,47	2,01	2,50	3,54
	Cool	kW	1,51	2,29	3,32	4,14	5,11
Running and Starting current	Heat	A	4,7	7,0	9,3	11,6	5,3
	Cool	A	7,0	10,5	14,7	19,1	7,6
Current 1		A	12	17	17	29,0	16,4
Current 2		A	13	13	13	26,0	13,0
Recommended fuse		A	30 / 15	30 / 15	30 / 16	30 / 30	20 / 20
Recommended cable size, supply 1 / 2		mm²	3 x 1,5 / 3 x 1,5	3 x 2,5 / 3 x 1,5	3 x 2,5 / 3 x 1,5	3 x 4,0 or 6,0 / 3 x 4,0	5 x 2,5 / 5 x 1,5
Operation range (outdoor temperature)	Heat	°C	-20 ~ 35	-20 ~ 35	-20 ~ 35	-20 ~ +35	-20 ~ +35
	Cool	°C	10 ~ 43	10 ~ 43	10 ~ 43	10 ~ +43	10 ~ +43
Water outlet	Heat	°C	20 ~ 60	20 ~ 60	20 ~ 60	20 ~ 65	20 ~ 65
	Cool	°C	5 ~ 20	5 ~ 20	5 ~ 20	5 ~ 20	5 ~ 20

1) Sound power in accordance to 8112013,81312013 and EN12102-1:2017 at +7 °C. 2) WH-MDC models are hermetically sealed.
EER and COP calculation is based in accordance to EN14511

NOTES

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