NEW AQUAREA 5KW MONO-BLOC

Maximum savings, Maximum efficiency, Minimum CO_2 emissions, Minimum of space

Panasonic has designed the new 5kW Aquarea Mono-Bloc heat pump for small homes which have high performance requirements.
Whatever the weather, the 5kW heat pump will always give you maximum efficiency, even at -20°C! The New Aquarea heat pump is easy to install on new or existing installations, in all types of properties.

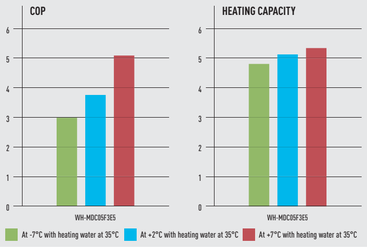
How do you get heating and hot water from air?

An Aquarea Air Source Heat Pump captures fresh air and passes it over refrigerant-filled coils (think fridge!). The captured heat is automatically transferred to water, which is then ready for use in your heating system and for supplying all of your domestic hot water needs. Panasonic's latest technology offers you a sustainable alternative to oil, LPG and electric heating systems.

Aquarea High Performance for low consumption houses. From 3 to 16kW

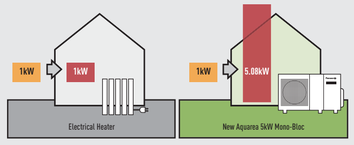
For a house with low temperature radiators or under-floor heating, our high performance Aquarea HP is a good solution. This solution can work as a stand-alone unit or can be combined with an existing gas- or oil-fired heating system depending on requirements. This new solution is ideal for low consumption homes.

High Performance have extremely high efficiency even at -15°C



COP comparison

Electrical heater with new Aquarea 5kW Mono-Bloc.



* The comparison is made on nominal manufacturer values based on the following conditions. Rating conditions: Heating: Inside air temperature: 20°C Dry Bulb / Outside air temperature: 7°C Dry Bulb / 6°C Wet Bulb. Conditions : Water input temperature: 30°C. Water output temperature: 35°C

ACCESSORIES

Radiators

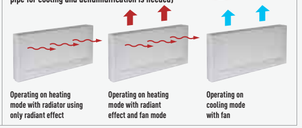
Panasonic have developed a new radiator line up working with water at 35°C in order to:
- Make the installation easier, without 2 zones kits and additional pumps,
- Increase the efficiency by 32% over standard radiators working at 45°C.
- Makes cooling operation possible to increase comfort

A selection tool is available on www.panasonicproclub.com

AQUAREA AIR RADIATORS. PAW-AAIR-900 / PAW-AAIR-700 / PAW-AAIR-200

32% MORE EFFICIENT THAN STANDARD RADIATORS

Heating, cooling and dehumidification functions (drain pipe for cooling and dehumidification is needed)



Operating on heating mode with radiator using only radiant effect

Operating on heating mode with radiant effect and fan mode

Operating on cooling mode with fan

Tanks

Panasonic have a large line up of tanks with high efficiency and high insulation allowing in certain cases for the tank to be installed in a non heated part of the house (such as garage, cellar, etc...) without affecting the efficiency of the house.

		STANDARD SANITARY		HIGH EFFICIENCY		SUPER HIGH EFFICIENCY		
		WH-TD20E3E5	WH-TD30E3E5-1	HR 200	HR 300	HRS 200	HRS 300	HRS 500
								
Heat up time	Valuation	★★☆☆	★★☆☆	★★★☆	★★★☆	★★★★	★★★★	★★★☆
Energy losses	Valuation	★★★☆	★★★☆	★★★☆	★★★☆	★★★★	★★★☆	★★★☆
Efficiency of the tank	Valuation	★★☆☆	★★☆☆	★★☆☆	★★☆☆	★★★★	★★★☆	★★★☆
Warranty		10 years	10 years	7 years	7 years	7 years	7 years	7 years

Control & connectivity

Aquarea Manager
Ready Steady Go. Easy Installation & Easy Configuration.
Ready: Pre-programmed with up to 600 applications/ system diagrams. Steady: At start up - state the number of application/system diagram. Go: The controller starts working according to selected diagram
PAW-HPM1: for 2 zones cascade and bivalent applications.
For more information: www.panasonicproclub.com

Room Thermostats
PAW-A2W-RTWIRED: Wired LCD room thermostat with weekly timer.
PAW-A2W-RTWIRELESS: Wireless LCD room thermostat with weekly timer.

Internet control
Internet Control is a next generation system providing user-friendly remote control of heat pump units from anywhere, using a simple Android or iOS smartphone, tablet or PC via internet.
A simple Installation: Just connect the Internet Control device to the heat pump with the supplied wire and then link it to your WIFI Access point.

Connectivity to Modbus / KNX / EnOcean
Panasonic allows for optimum integration with BMS systems. Panasonic have designed a range of interfaces for Panasonic specifically to provide complete monitoring, control and full functionality of the entire Aquarea line-up from KNX, EnOcean and Modbus installations.

Photovoltaic Solar panels

Heat Pump + HIT Photovoltaic solar panel from Panasonic
Photovoltaic solar panels: the best solution for big savings.
Combining photovoltaic solar panels with your heat pump can help to further reduce your electrical consumption and CO_2 emissions. Additionally, with the unique HIT photovoltaic solar panel technology from Panasonic, you can produce more electricity per square metre, helping you to increase your energy savings still further.

Panasonic

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

Contact Details:
Telephone: 01344 853182
www.panasonic.co.uk/aircon

Address: Panasonic Air Conditioning
Panasonic House
Willoughby Road
Bracknell
Berkshire
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Panasonic

NEW 5kW MONO-BLOC SINGLE PHASE

NEW AQUAREA AIR TO WATER HEAT PUMP 2013 / 2014

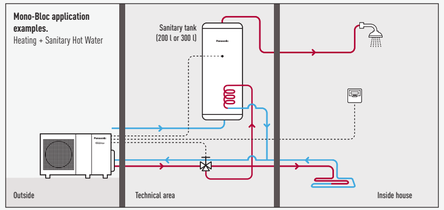
heatingandcoolingsystems

AQUAREA

APPLICATION EXAMPLES

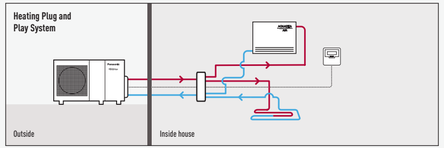
Application A:
• Ground floor and • 1st floor: floor heating. • Sanitary hot water for 4 persons

Panasonic Solution:
• Mono-Bloc heat pump of 5kW. • Efficient HRS 200 tank with high exchange surface, high insulation allowing a installation in a not heated part of the house, high durability.



Application B:
• Ground floor and 1st floor: Radiators

Panasonic Solution:
• Mono-Bloc heat pump of 6kW. • Aquarea Air radiators working with water at 35°C, allowing 32% more efficiency on the heating system as standard low temperature radiators.



HIGH CAPACITY COMPRESSOR

High temperature heating source unit
• R410A refrigerant
• High capacity compressor (42-66cc)
Models: 5JD420X and 5JD550X

HOW PANASONIC HELPS YOU

How Panasonic heat pumps can help you to save money
• Large line up of solutions which can be integrated in your projects
• Mono-Bloc line up for easy installation, no refrigerant installation and small foot print
• Large installer and service team available on www.panasonicproclub.com for efficient follow-up and support for your project
• Helps you to reduce the cost of your construction and increase reliability
• Panasonic has expanded our distribution network, providing delivery when you need it
• Panasonic offers a strong service network for startups and commissioning

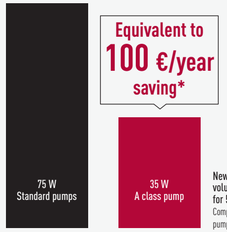
How Panasonic helps you to specify the correct heating system
• Panasonic can help you adhere to strict building regulations
• Design software, specs and noise calculator available on www.panasonicproclub.com

How to install easily the Panasonic Heat Pump
• If Mono-Bloc required, there is no need for a certified gas installer
• Easy setup with a very easy to handle remote control
• Reliable
• Safety valve and expansion vessel included
• Concrete Dry mode[1]
• Lock cooling mode[1]
• Pump speed control level 1-7

KEY POINTS OF THE LINE-UP

• 6l EXPANSION VESSEL
• A CLASS PUMP

• A-Class pump significantly reduces the consumption

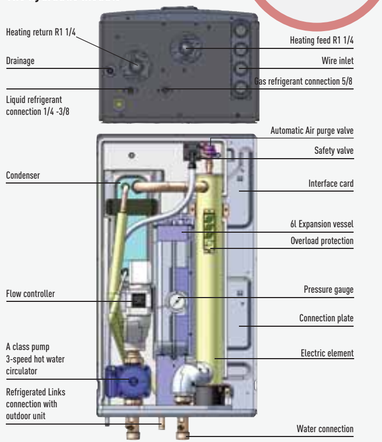


New A class pump with variable volume-flow (Dynamic Pump Control) for 5kW Mono-Bloc
Comparison of energy consumption - Standard pumps vs A class pump

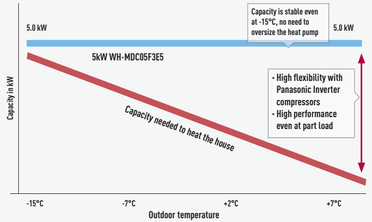
* Assuming a yearly cost of 180 € for a standard pump may vary depending on consumption and energy cost.

• A Class pump adapts the water pressure according to the demand, reducing energy consumption, noise on the valves, and makes the installation easy without buffer tanks or manifold.
• No Backup heater needed to maintain the capacity at -7°C, High efficiency guaranteed even at -7°C
• Many new functions added:
Auto mode, holiday mode[1], show power consumption, new device control

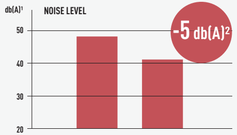
The hydraulic module



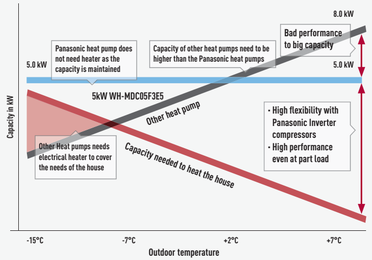
With a Panasonic heat pump, there is no need to over size the heat pump to reach the required capacity at low temperatures.
• Dedicated software for low consumption houses which allow the heat pump to produce hot water at 20°C. This is needed during the seasons, when a little heating is required
• No need of additional expansion vessel, as the unit already has a 6l expansion vessel
• No buffer tank required as the Panasonic heat pump has an inverter compressor which can regulate the capacity. (Please check on the service manual the minimum volume of water needed on the circuit)
• 3kW electrical heater is included on the heat pump
• Panasonic heat pumps can work up to -20°C and guarantee the capacity without backup heater up to -15°C (Check capacity tables)
• Panasonic heat pumps are very silent and have a night mode program for even lower noise. See noise calculator on www.panasonicproclub.com



Special attention has been given to noise levels - Panasonic created a night mode to reduce the noise when it's needed.



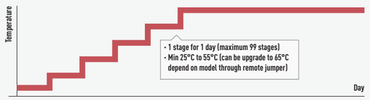
1. Sound pressure measured at 1 m from the outdoor unit and at 1.5 m height.
2. At standard condition working at heating capacity at +7°C with heating water at 35°C for two fans outdoor units. For one fan outdoor units, night mode reduction is 3dB(A).



NEW FEATURES

For installer

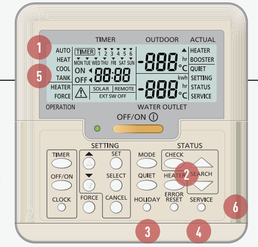
4. Floor heating concrete dry mode: Allows to increase temperature of floor heating slowly via software or jumper.



5. Heating and Cooling Mode
Installer can disable the cooling mode through a special operation via the remote controller on site.

6. Pump with 7 speeds
Pump speed can be selected on the remote control.

7. New de-ice control
Panasonic has developed a new de-icing control system which dramatically reduces the requirement for a back-up heater, increasing the efficiency of the heat pump.



For customer

1. Auto Mode: Automatically changes from heating to cooling depending on outdoor temperature.

2. Energy Consumption: Displays the heat pump's energy consumption, split by heating, cooling and domestic hot water, and shows total consumption figure.

3. Holiday Mode: Helps you to reduce heating temperature during holidays.

NEW 5KW HIGH PERFORMANCE. TECHNICAL DATA

DESIGN FOR LOW CONSUMPTION HOMES
MAXIMUM SAVINGS, MAXIMUM EFFICIENCY, MINIMUM CO2 EMISSIONS, MINIMUM OF SPACE
PRODUCT READY FOR THE NEW ErP ECODESIGN REQUIREMENTS LOT 1

A class pump

Panasonic has designed the new 5kW Aquarea Mono-Bloc heat pump for low consumption homes which have high performance requirements but limited space to install the outdoor unit.
Whatever the weather, Aquarea will always give you maximum efficiency, even at -20°C. The Mono-Bloc is easy to install in new and existing residential properties.

Technical focus
• Efficient control of room temperature based on the outdoor temperature, indoor temperature using the Aquarea Manager.
• Optional Smartphone control
• Maximum hydraulic module output temperature: 55°C
• Works down to -20°C
• Plug and play system

Internet Control Ready – INTERNET CONTROL
5.08 COP high efficiency – AQUAREA HIGH PERFORMANCE
High efficiency heating – Inverter+
Environmentally friendly refrigerant – R410A
Down to -20 °C in heating mode – OUTDOOR TEMPERATURE
Easy control by BMS – CONNECTIVITY
5 year compressor warranty

INTERNET CONTROL READY: Optional.

5kW High Performance			Single Phase
Model			WH-MDC05F3E5
Heating Capacity at +7°C with heating water at 35°C		kW	5.00
COP at +7°C with heating water at 35°C			5.08
Heating Capacity at +7°C with heating water at 45°C		kW	5.00
COP at +7°C with heating water at 45°C			4.00
Heating Capacity at +2°C with heating water at 35°C		kW	4.80
COP at +2°C with heating water at 35°C			3.75
Heating Capacity at +2°C with heating water at 45°C		kW	4.50
COP at +2°C with heating water at 35°C			2.96
Heating Capacity at -7°C with heating water at 35°C		kW	4.50
COP at -7°C with heating water at 35°C			2.98
Heating Capacity at -7°C with heating water at 45°C		kW	4.50
COP at -7°C with heating water at 45°C			2.53
Heating Capacity at -15°C with heating water at 35°C		kW	5.00
COP at -15°C with heating water at 35°C			2.56
Heating Capacity at -15°C with heating water at 45°C		kW	5.00
COP at -15°C with heating water at 45°C			2.04
Cooling capacity at 35°C with cooling water at 7°C		kW	4.50
EER at 35°C with cooling water at 7°C[1]			3.00
Power			230V / 50Hz
Dimensions	H x W x D	mm	865 x 1283 x 320
Weight		kg	112
Pump			A class
Heating water flow (ΔT=5 K. 35°C)		l/min	45.9
Capacity of integrated electric heater		kW	3
Sound pressure level		dB(A)	47
Sound power level		dB	65
Dimensions / Weight	H x W x D	mm / kg	1340 x 900 x 320 / 127
Operation range	Outdoor ambient	°C	-20 to 35
Water outlet	Heating	°C	25 – 55
	Cooling		5 – 20
Base pan heater			Option

COP classification is at 230 V only in accordance with EU directive 2003/32/EC. Sound pressure measured at 1 m from the outdoor unit and at 1.5 m height. Performance in agreement with EN14511.