Panasonic



NEW AQUAREA RANGE 2017 - 2018 HIGH-EFFICIENCY HEAT PUMP TECHNOLOGY





heating & cooling solutions

Panasonic

PANASONIC: ECO & SMART IDEAS FOR A SUSTAINABLE LIFESTYLE



Panasonic Green Innovation Company. We will make the environment central to all our business activities and work to realize our vision with innovations for both every day life and business.

We aim to realise a lifestyle with virtually zero $\mathrm{CO}_{\rm 2}$ emissions throughout the entire home

By creating, storing, managing and saving energy, Panasonic aims to realise a lifestyle with virtually zero $\rm CO_2$ emissions throughout the entire home.

Panasonic - leading the way in Heating and Cooling

With more than 30 years of experience, selling to more than 120 countries around the world, Panasonic is unquestionably one of the leaders in the heating and cooling sector.

With a diverse network of production and R&D facilities, Panasonic delivers innovative products incorporating cutting-edge technologies that set the standard for air conditioners and heat pumps worldwide. Expanding globally, Panasonic provides superior international products transcending borders.

100% Panasonic: we control the process

The company is also a world leader in innovation as it has filed more than 91,539 patents to improve its customers' lives. Moreover, Panasonic is determined to remain at the forefront of its market. In all, the company has produced more than 200 million compressors and its products are manufactured in 294 plants which are located all over the world. You can be assured of the extremely high quality of Panasonic's heat pumps. This wish to excel has made Panasonic the international leader in heating and turn-key air conditioning solutions. These offer maximum effectiveness, comply with the strictest environmental standards and meet the most avant-garde construction requirements of our time.

The Panasonic Aquarea Heat Pumps are designed and produced by Panasonic and not by other companies.

Solar Power Generator

HIT solar cells achieve maximum output even on smaller roofs. These solar modules are 100% emission free, have no moving parts and produce no noise. Home AV

Panasonic offers a wide range of energy saving home equipment to fulfil a sustainable and comfortable lifestyle.

Heat Pump The Aquarea Heat Pump is

The Aquarea Heat Pump is part of a new generation of heating systems that use a renewable, free energy source: air, to heat or cool the home and to produce hot water.

Fuel Cell

The Panasonic Fuel Cell is an energy-creating device, which generates electricity and heat at the same time with chemical reaction between hydrogen extracted from natural gas and oxygen.

> Solar Power Generator Our mobility space can be connected to our HIT solar panels – with the help from our storage batteries.

LED Lamps

Expertise gathered over years of research and development has enabled Panasonic to provide a renaissance in energy saving home LED lighting – with our LED Nostalgic Clear lamp.

Home Appliances

Panasonic is globally committed to develop products which are environmentally friendly. Panasonic delivers home appliances such as refrigerators and washing machines that incorporate the latest energy-efficient technology.

Storage Battery

The battery stores the energy generated by a combination of solar power and fuel cells to ensure a constant supply of electricity on demand.

HOW DO YOU GET HEATING AND DOMESTIC HOT WATER FROM AIR?

AQUAREA

New Aguarea Air to Water Heat Pump. The best seasonal efficiency. At the forefront of energy innovation, Aquarea is resolutely positioned as a "green" heating and airconditioning system.

Introducing the Panasonic Aquarea – Air Source Heat Pump

An Aquarea air source heat pump circulates 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.

Up to 80% energy savings*

Power Input /

Energy Consumption

At the forefront of energy innovation, Aquarea is resolutely positioned as a "green" heating and air-conditioning system. Aquarea is part of a new generation of heating and air-conditioning systems that use a renewable. free energy source - the air - to heat or cool the home and to produce hot water. The Aquarea heat pump is a much more flexible and costeffective alternative to a traditional fossil fuel boiler.

"Green" High-efficiency heating with Panasonic's new Air to Water **Heat Pump Systems**

Panasonic's Aquarea Heat Pump provides savings of up to 80% on heating expenses compared to electrical heaters. For example, the Aquarea 5kW system has a COP of 5,28. This is 5,28 more than a conventional electrical heating system which has a maximum COP of 1. This is equivalent to an 80%* saving. Consumption can be further reduced by connecting photovoltaic solar panels to the Aquarea system.

Aquarea air to water heat pump: An innovative low energy system, designed to create great comfort at home even at extreme outdoor temperatures. Providing heat to radiators, underfloor heating, fancoils as well as producing domestic hot water.

> Power Input / Free Energy

Heating Capacity

Why air source heat pumps?

- Heating, cooling and domestic hot water produced with a single system
- Best in terms of efficiency: even at extreme outdoor temperatures
- Environmentally friendly: can be connected to solar panels
- Technology that adapts to each home: extreme low temp, high temperature, whatever the climate
- Wide range of solutions: floor heating, radiators and fan coils
- Reduced heating bills and maintenance costs
- Reduce your carbon footprint
- Simple to integrate into existing heating systems
- Energy efficient alternative to oil, LPG and electric systems
- Ideal for properties without access to mains gas
- Externally positioned saving valuable internal living space

AQUAREA HEAT PUMP LINE-UP

Panasonic Aquarea offers you solutions, helping to make the home more efficient and the installation cheaper and easier.

Aquarea High Performance. For new installations and low consumption homes

Maximum savings, maximum efficiency, minimum CO_2 emissions, minimum of space. Improved performance with COP's up to 5,28.

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.

Aquarea HT. For a house with old high-temperature radiators

Ideal for retrofit: green energy source works with existing radiators. Aquarea HT Solution is the most appropriate, provides output water temperatures of 65°C even at outdoor temperatures as low as -15°C.

Aquarea DHW

DHW tank with built-in heat pump.

All data in this chart is applicable in most of models in each line up, check product specs to confirm. *H Generation T-CAP

NEW AQUAREA H GENERATION A+++

The beauty of comfort. The new H Generation is being introduced from 3 to 16kW. Those small capacities are specially designed for low energy homes and achieve an impressive COP of 5 (on the 3kW).

Better Efficiency & Value A++/A++

- A++ for medium temperature applications (radiators. ErP 55°C)
- A++ for low temperature applications (floor heating. ErP 35°C)
- 3 & 5kW meet Sep'19 ErP regulation as A+++

Aquarea, a new generation of energy efficient heating and hot water

Thanks to the system's high degree of technology and advanced control, it is able to maintain a high capacity and efficiency even at -7°C and -15°C. The Aquarea's software is optimised to the requirements of low consumption homes in order to maximise energy efficiency. Whatever the weather, Aquarea can work even at -20°C. The compact design of the outdoor unit makes installation very easy.

New Design

Nice improved design. White, squared design with no screws visible. Modern remote control can be moved from the unit.

Installer Friendly:

- Electrical connections is now located on front side
- Easy access to parts and easy to install by having all pipings in a row
- New remote control with full dotted wide screen and new functions
- Can connect additional room temperature sensor, solar kit, 2 zones control, swimming pool and circulating pump (need optional PCB: CZ-NS4P)

Compact and free space. More value in 1 compact space:

- Line strainer (easy access & fast clip technology)
- Isolation valves
- Electronic flow sensor
- 3 way valve ready (optional CZ-NV1 in internal space)

New All in One with 2 zones control

- · 2 heating circuits, with 2 different water temperatures
- 2 water pumps and 2 water filters
- Floor heating water control with mixing valve

2 Zones kit included with control of 2 water temperatures (underfloor with water at 35°C and radiators with water at 45°C)

New All in One, compact and easy to install

All in One is a space-saving solution, ideal to install in the laundry room. In addition, Panasonic has developed a range of controls that allow control of two heating zones and bivalent.

Aquarea All in One belongs to the new generation of Panasonic heat pumps for heating, cooling and providing hot water in the home. Aquarea T-CAP is one of the newest heat pumps on the market, and maintains nominal heating capacities even at temperatures as low as -20°C. This ensures the best possible seasonal energy efficiency ratio. The heat pumps are tested at an outdoor temperature of -28°C, to ensure the most efficient and stable operation in the Nordic climate.

Aquarea All in One H Generation does not require buffer tank.

BEST IN TEST 2016: * Applies to All in One T-CAP 5kW H Generation: The highest measured SCOP (energy efficiency) of all air/ water heat pumps, in the corresponding category, that have been published on the heat pump list of the Danish Energy Agency: sparenergi.dk/forbruger/vaerktoejer/

New Aquarea Smart Cloud for H Generation

The most advanced heating control for today and for the future 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.

Advanced Control

Ease of use: New remote control with full dotted 3,5" wide back light screen. Easy to use for installer and user. **Relocation:** Remote control can be relocated to any room.

New Accessory

Optional PCB (CZ-NS4P). With this new PCB you can also manage one or more functions like below: SG Ready, 0 - 10V demand signal, 2-zones control function (pump + mixing valve), solar and external switch (Heat / Cool).

AQUAREA HIGH PERFORMANCE

For new installations and low consumption homes. Maximum savings, maximum efficiency, minimum CO_2 emissions, minimum of space.

High Performance helps you to meet strict building requirements and reduce building costs

The heating and production of hot water have a very important impact on the energy consumption of a house. Efficient Panasonic Heat Pumps can help to significantly reduce the energy consumption of the house.

Key points of the line-up

- Improved performance with COP's up to 5,08
- A Class circulating pump significantly reduces the energy consumption
- Remote controller functions added: Auto mode, holiday mode, show
- power consumption

Panasonic has designed the new Aquarea Bi-Bloc and Mono-bloc heat pumps for homes which have high performance requirements.

Whatever the weather, Aquarea can work even at -28°C! The New Aquarea is easy to install on new or existing installations, in all types of properties.

Advanced Controller for H Generation

Improved visibility & Easy operation by big fulldot LCD panel and large touch panel!

Remote controller can be removed from indoor unit and installed in living room.

High Performance Pumps are also Highly Efficient (WH-MDC05F3E5 example)

* Heating water at 35°C.

Panasonic created a night mode to reduce the noise when it's needed

Special attention has been given to noise levels

- Sound pressure measured at 1m from the outdoor unit and at 1,5m height.
 At standard condition working at heating capacity at +7°C
- 2. At standard condition working at heating capacity at +7°C (heating water at 35°C) for two fans outdoor units. For one fan outdoor units, night mode reduction is 3dB(A).

Key Points

Full dot big LCD screen (3,5 inch) / High resolution screen with backlight / Easy set up / Check conditions easily even at the living room / Flat, innovative design / Temperature Sensor included in controller.

Remote control

Panasonic has introduced a new remote controller to improve performance, enhance comfort and deliver maximum savings.

New function for installer

- Floor heating concrete dry mode: Allows slow increase in temperature of floor heating via software
- Heating and Cooling Mode: Authorised service partner or Authorised installer can enable the cooling mode through a special operation via the remote controller on site
- Pump with 7 speeds: Pump speed can be selected on the remote control
- · Pump speed is selected automatic based on demand

New function for end user

- Auto Mode: Automatically changes from heating to cooling depending on outdoor temperature.
- Energy Consumption: Displays the heat pump's energy consumption, split by heating, cooling and domestic hot water, and shows total consumption figure and COP
- Holiday Mode: Enables the system to resume at the preset temperature after your holiday

AQUAREA T-CAP

For extremely low temperatures, refurbishment and innovation. Install the A Class water pump: industry's top class energy-saving!

To ensure that the heating capacity is maintained even at low temperatures

The whole T-CAP line-up can replace old gas or oil boilers, and in a new application with underfloor heating, radiators or even fan-coil heaters. All Aquarea heat pumps can also be connected to a solar kit in order to increase efficiency and minimize the impact on the ecosystem. Finally, it is possible to connect a thermostat for even better heating or cooling control and management.

Best efficiency compared to other heating systems

Panasonic heat pumps have a maximum COP of 4,85 at +7°C which makes them much more efficient than others heating systems.

More Energy saving

T-CAP is also able to provide extremely high efficiencies, whatever the outside or the water temperature.

Applications

For retrofit houses. Replace easily expensive gas or oil boilers for high efficient 16kW T-CAP.

For commercial applications. Wide range of capacities from 9kW to 45kW. Also you are able to connect up to five heat pumps.

Key points of the line-up

- Is able to maintain the heat pump output capacity until -20°C outdoor temperature without the help of an electrical booster heater
- High heating capacity even at low ambient temperatures.
- Adding functions: Auto and holiday mode, power consumption display
- Backup heater capacity can be selected (3/6/9kW)
- Cooling mode activation possible by software*
- * This activation can only be done by service partner or installer

With a Panasonic heat pump, there is no need to oversize to reach the required capacity at low temperatures

- Dedicated software for low consumption houses which allows the heat pump to produce hot water at 20°C. This is needed during the seasons, when a little heating is required
- No need for an additional expansion vessel, as the unit already has a 10L expansion vessel
- No buffer tank required as the Panasonic heat pump has an inverter compressor which can regulate the capacity. New twin deice system included within the system
- 3/6/9kW electrical heater is included on the heat pump
- Panasonic heat pumps can work in outdoor temperatures as low as -28°C and guarantee the capacity without backup heating down to -20°C
- Panasonic heat pumps are very quiet and have a night mode program for even lower noise. See noise calculator on www.panasonicproclub.com

For heating and cooling mode. The 16kW is able to heat the water at 60°C and can work when the temperature is as low as -28°C.

For heating and sanitary hot water. Efficient domestic hot water tanks allow large storage for high consumption of hot water.

AQUAREA HT

For a house with old high-temperature radiators, ideal for retrofit. Aquarea HT produces hot water at 65°C, making it ideal for use as a high efficiency retrofit replacement for gas boilers supplying radiators for heating.

Green energy source works with existing radiators

Replace a traditional heating source (such as oil or gas) with Aquarea HT, but keep existing old style radiators for minimum disruption to the home. From 9 to 12kW. For a house with traditional high-temperature radiators (such as cast iron radiators), the Aquarea HT Solution is the most appropriate as the Aquarea HT provides output water temperatures of 65°C even at outdoor temperatures as low as -15°C. Aquarea HT is able to deliver hot water to 65°C with the Heat Pump alone.

Aquarea HT: High savings and low CO₂

The results of replacing traditional heating systems with Aquarea HT are clear: lowest running cost and lowest CO_2 emissions. Panasonic Heat Pumps are much more efficient than fossil fueled boilers and help you to reach your house energy targets easier.

* For a 170 m² house and 40 W/m² energy losses in central Europe Conditions, outside minimum conditions -10°C.

Panasonic Aquarea HT is super efficient even at low temperature Heating Capacity of a 9kW HT (WH-SHF09F3E5).

Smart Bivalent operation

Thanks to Aquarea bivalent controller, it is possible to combine different heat sources and use the most appropriate source, depending on user preferences. Thus, if it is necessary to combine a

gas or oil boiler with heat pump, Aquarea bivalent controller is simply the best solution.

Heat Pump + Boiler Management with DHW with PAW-A2W-BIV

Easy installation

Air source heat pumps are simple to install. They do not require a chimney, gas connection nor oil tank. All that is required is a standard power supply connection. Aquarea heat pumps are also quick to start up.

COP Coefficient of Performanceof a 9kW HT (WH-MHF09G3E5).

The Aquarea HT range is easy to install and is available with nominal heat outputs of 9kW and 12kW, single or three phase, in both Bi-bloc and Mono-bloc versions. The HT is also very quiet in operation with no noise inside the house as there is no double stage compression.

NEW AQUAREA SMART CLOUD FOR H GENERATION

The most advanced heating control for today and for the future

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.

New functions for maintenance companies will be added during 2017, making advanced remote maintenance available to users and companies using same device.

How it works?

Connect Aquarea H Generation system to the cloud using Wifi or a wired LAN Network.

Requirements

- 1. H Generation Aquarea system
- 2. In-house internet connection with router Wifi or wired LAN
- 3. Get a Panasonic ID in https://aquarea-smart.panasonic.com/

2 step introduction with same hardware: CZ-TAW1

	Step 1 (September 2016)	Step 2 (2nd Half of 2017) Same CZ-TAW1 hardware. Changes implemented in the cloud server.
End User management	and energy control	
Visualization & Control	v	_
Scheduling	✓	_
Energy Statistics	v	_
Malfunction notification	V	_
Advanced functions for	remote maintenance with	professional screens
Monitoring	—	V
Control	—	V
Statistics (exportable)	—	V
Failure Prediction	_	 ✓
Remote Service	_	v

Advantages

Energy savings, comfort and control from anywhere. Increase efficiency and resources management, operating costs savings and owner satisfaction. Throughout 2017 Panasonic will add new services to the Aquarea Smart Cloud focused on enabling full remote maintenance of the Aquarea system. This will allow maintenance specialists to engage in predictive maintenance and system fine-tuning, as well as fixing malfunctions when they occur.

Aquarea compatibility	H Generation
Connection point	CN-CNT Aquarea port
Home router connection	Wifi or Wired LAN
Temperature sensor	Can use remote control sensor
Tablet or PC browser compatibility*	Yes
Operation from remote $-$ On/Off $-$ House Temp setting mode selection $-$ DHW setting $-$ Error codes $-$ Scheduling	Yes
Heating areas	Up to 2 zones
Power consumption estimation — Operation log history	Yes — Yes

* Check browsers and version compatibility.

CONTROL & CONNECTIVITY

Internet Control

Control your heat pump from wherever you are. Control your comfort and efficiency with the lowest energy consumption.

Internet Control is a next generation system providing user-friendly remote control of air conditioning or heat pump units from anywhere, using a simple Android or iOS smartphone, tablet or PC via internet.

Connectivity. Control by BMS

Great flexibility for integration into your KNX / Modbus projects allows fully bi-directional monitoring and control of al the functioning parameters. These new interfaces allows full monitoring and control, bi-directional, of all the functioning parameters of Aquarea control from KNX or Modbus installations.

Bivalent Controller

Connect various heating systems together with the Bivalent Controller, either in parallel, alternative or as a boost. Seamlessly, providing the most cost effective heating solution for your home. Panasonic has developed a new easy start up mode for the bivalent controller. Start your bivalent system in just 10 minutes!

PV panels + Heat Pump Manager

Heat and produce Domestic Hot Water for free

The Heat Pump will take the electricity generated by the solar system into consideration for the heating system and the domestic hot water production, without reducing comfort in the house.

AQUAREA DHW

DHW tank with built-in Heat Pump

The Heat Pump is one of the most energy efficient and cost effective methods of water heating. The pump is mounted on the storage tank and draws energy from the ambient air, using that extra energy source to heat the water up to 55°C.

All new DHW HP will be delivered with a plug, because:

- 1. IP protection
- 2. Pull forces
- 3. No junction box we want to avoid to have disassembling though installation
- 4. Bench mark analysis

Wall mounted Aquarea DHW. Mid Capacity: 80/100/120L

Designed for maximum energy savings, Aquarea DHW's medium tank volume has been designed as a perfect replacement for the electric water heater. The conventional medium tank volume has been boosted with a heat pump generator, which delivers superior energy performance. The airto-water heat pump design with air ducts enables the selection of inlet and outlet points for the air, which allows it to be used in various parts of the home (kitchen, bathroom, sunrooms, etc.).

Aquarea DHW Advantages

- High-technology rotational compressor ensures higher energy efficiency and a higher coefficient of performance, which means major energy savings – up to 75%.
- Wrapped around the inside of the outer cover of the tank, it prevents the build-up of limescale, extends the useful life of the equipment and improves safety.
- The dimensions and heating capability of a medium volume Aquarea DHW tank can easily replace an existing electric water heater. Its small size allows it to be installed in spaces where previously a conventional electric water heater would be installed.
- Impressive tank protection is provided through the use of superior super-clean enamel and a large magnesium element. These ensure durability even in the harshest operating conditions, without harmful additives in the water.

Floor standing at -7°C Aquarea DHW. High capacity: 200/295L

The DHW is ready to achieve levels of high efficiency even at temperatures as low as -7°C. With this range it is possible to connect an additional heat source, such as solar energy. In PAW-DHWM300AE, the heat pump cools and de-humidifies the air pumped either from outdoors or from within the building. By choosing the point of air capture and exhaust, you can ventilate and de-humidify some rooms, while extracting the cooled air either into the environment or into another room that you wish to cool.

AQUAREA AIR RADIATORS

New line up of Super low temperature radiators for Heat Pump application: Aquarea Air 200/700/900 with radiating effect

The slimline Panasonic Aquarea Air radiators deliver high efficiency climate control. With a depth of just under 13 cm they are at the cutting edge of the market. Blending easily into the home, Aquarea Air's elegant design and product refinements are clear to see in every detail. The Aquarea Air's slimline profile has been achieved thanks to the innovative layout of the ventilation unit and the heat exchanger. The fan is tangential with asymmetric blades and the large surface heat exchanger enables high airflows to be achieved with low pressure loss and low noise levels. Exceptional ventilation efficiency means the motor uses considerably less energy (low wattage). The fan speed is continuously modulated by the temperature controller with proportional integral logic, with undoubted advantages for regulating the temperature and humidity in summer mode.

With standard cast radiators

Water at 35°C needed.

Line up of super low temperature radiators for Heat Pump application

During winter, the operating principle is based on micro fans with very low power consumption and minimum noise, that send hot air coming from the heat exchanger, to the inside of the front panel of the device and therefore heat it effectively. With this principle, the terminal also provides significant power while heating, without running the main fan. Comfort temperatures are therefore maintained, without air movements and in silence. In summer mode, the airflow generated by the micro fans is stopped to avoid any dew formation on the terminal's front surface.

Technical focus

- Front panel heating with radiant effect
- High heating capacity (without main fan running)
- 4 fan speeds and capacities
- Exclusive design
- Extremely compact (only 12,9 cm deep)
- Cooling and dehumidification functions possible (drain is needed)
- 3-way valve included (no overflow valve needed on the installation if more than 3 radiators installed)
- Touch screen thermostat

All temperature curves and capacity are available on www.panasonicproclub.com

PANASONIC'S AQUAREA OFFERS THE BEST FOR YOU AND YOUR HOMF

Panasonic will supply the energy label and a product fiche for all delivered products affected by these regulations, which sales partners, traders and contractors must use when labelling our products.

DHW heating symbol with details of tapping profile

Optional symbol where operation is possible only in off-peak periods

Temperature map of Europe with three climate zones and the rated

Sound power level outdoors and (where relevant) indoors

Energy Label ErP

Fridges, dishwashers, washing machines, ovens - it all started with white goods in the 1990s. Today, other energy-consuming appliances also carry the European ErP energy efficiency label, such as TV sets, lighting and – since September 2014 - even vacuum cleaners. Since 2013 the regulations already apply to air conditioners and pumps. As of September 2015, it will also apply to room heaters, water heaters and storage water heaters. "ErP" stands for Energy related Products. Now, minimum energy efficiency requirements for energy efficient solutions (the Ecodesign Directive) are also specified for manufacturers of system and combi boilers, water heaters and DHW cylinders. This directive, valid throughout the European Union, and the label associated with it are intended to assist consumers in their purchasing decisions and to help reduce private energy demand, as well as combat climate change.

Panasonic helps you to calculate the system label

From 26th September 2015, installers can be assured that all products manufactured after this date will be sold with the required ErP labels which will aid installers with their paperwork. While it is the manufacturer's responsibility to issue their products with the required labels, the installers will need to calculate and issue an efficiency label for the entire heating system. Whether installing a new heating system or installing new boilers, controls or renewables into an existing system, it is, and will continue to be, the installer's responsibility to calculate and issue efficiency labels. Calculators which assist installers with this process are available on www.panasonicproclub.com.

Information on the energy label

The rating system for heating heat pumps classifies them into nine efficiency categories. The best energy efficiency category is A++. Category G identifies appliances with significantly poorer values. The ErP label for system boilers shows its efficiency category on a scale from A++ to G (to D for heat pumps, from A to G for hot water cylinders). In August 2019, a more rigorous scale will be introduced from A+++ to D, and from A+ to G for hot water cylinders.

Panasonic helps you to calculate the system label www.panasonicproclub.com or connect simply with your smartphone to the PRO Club using this QR

PRO Club

A typical example of savings and performances that Aquarea can offer to you.

A 125m² house in Reims

The example below shows a typical 3 bedroom French home and highlights the potential savings that can be achieved with Panasonic's Aquarea heat pump*.

* Calculations were carried using Panasonic's Aquarea Designer software, available from the PRO Club website (www.panasonicproclub.com).

Service hot water	
Type of service	Hot water with heat pump
Tank volume	300 Litre
Average daily need	200 Litre
Cold water inlet temperature	10°C
Target tank temperature	50°C
Exchange loss	5K
Electrical auxiliary heating necessary	No

Used Panasonic heat pump					
Description	T-CAP 12kW				
Sanitary tank	Stainless steel 300L				
Heat pump type	Air / Water				
Capacity / consumption at 2°C (heating water at 35°C)	Heat: 11,7kW, Electric: 3,4kW				
Recommended flow-through of air	4.800,0m³/h				
Maximum flow temperature	55°C				
Mode of operation	Monovalent				
Design	-5,0°C				
Number of heat pumps used	1				
Wattage of fan (included in heat pump performance data: yes)	60W				
Power consumption of heat circulation pump(s)	180W				

Address	Reims (French)
Building area	125m ²
Standard heating requirement	11,3kW
Internal gains	5.625kWh/year
Solar gains (windows)	4.500kWh/year
Indoor design temperature	20°C
Outdoor temperature limit for heating 'ON'	15°C
	Underfloor heating by 100 %
Heat distribution	Radiator heating by %
	Wall heating by %
Maximum flow water temperature	55°C
Maximum return water temperature	50°C
Solar collector area	m ²

Rate data					
Description	French (Panasonic)				
Shut off times total	0,0 h/day				
Weekends with shut off times	Yes				
Deutime rate of heat nump	Time for daytime rate				
Daytime fate of near pump	5-19 o'clock	14,0 pence/kWh			
Nighttime rate of boot nump	Time for nighttime rate				
Nightume rate of near pump	19-5 o'clock	14,0 pence/kWh			
Heat circulation pump(s)	Like heat pump: yes	pence/kWh			
Heating element for monoenergetic operation	Like heat pump: yes	pence/kWh			
Heating element for post heating of hot water	Like heat pump: yes	pence/kWh			

Climatic data								
Climatic location Reims (FR)								
	Jan	3,4	Apr	8,0	Jul	16,0	Oct	10,4
Monthly average temperatures in °C	Feb	3,6	May	11,2	Aug	15,9	Nov	6,7
	Mar	5,7	Jun	14,1	Sep	13,7	Dec	4,6

Calculation results

Monthly heat consumption in kWh

Aquarea energy coverage

Comparison of running costs

Operational costs

Type of heating	Price in pence /kWh	Efficiency (%)	Additional costs in €/year	Total costs in €/year
Heat pump	-	-	0	1.600
Oil	6,5	85	0	3.050
Gas	4,0	90	0	1.868
Wood heating	5,0	80	0	2.539
Electric night storage heater	12,0	100	0	4.455
Electric heating element	14,0	100	0	5.197

Comparison of CO, emissions

Comparison of CO, savings

AQUAREA HEAT PUMPS LINE-UP

Aquarea All in One H Generation High performance Bi-Bloc Single Phase. Heating and Cooling 1 zone hydrokit or 2 zones built-in hydrokit

		Single Phase (power to indoor)					
Kit 1 zone		KIT-ADC03HE5	KIT-ADC05HE5	KIT-ADC07HE5	KIT-ADC09HE5		
Kit 2 zones		KIT-ADC03HE5B	KIT-ADC05HE5B	KIT-ADC07HE5B	KIT-ADC09HE5B		
Heating capacity at +7°C (heating water at 35°C)	kW	3,20	5,00	7,00	9,00		
COP at +7°C (heating water at 35°C)	W/W	5,00	4,63	4,46	4,13		
Cooling capacity at 35°C (cooling water at 7/12°C)	kW	3,20	4,50	6,00	7,00		
EER at 35°C (cooling water at 7/12°C)	W/W	3,08	2,69	2,63	2,43		
Energy Efficiency Class at 35°C / at 55°C / at 55°C fo	r DHW	A++ / A++ / A	A++ / A++ / A	A++ / A++ / A	A++ / A++ / A		
System label 35°C / 55°C1		A+++ / A++	A+++ / A++	A+++ / A++	A+++ / A++		
Indoor unit 1 zone		WH-ADC0309H3E5	WH-ADC0309H3E5	WH-ADC0309H3E5	WH-ADC0309H3E5		
Indoor unit 2 zones		WH-ADC0309H3E5B	WH-ADC0309H3E5B	WH-ADC0309H3E5B	WH-ADC0309H3E5B		
Sound pressure level Heating / Cooling	dB(A)	28 / 28	28 / 28	28 / 28	28 / 28		
Dimensions* / Net Weight* H x W x D	mm / kg	1.800 x 598 x 717 / 135	1.800 x 598 x 717 / 135	1.800 x 598 x 717 / 135	1.800 x 598 x 717 / 135		
Capacity of integrated electric heater	kW	3	3	3	3		
Recommended Fuse	A	15 / 15	15 / 15	30 / 15	30 / 15		
Recommended cable size, supply 1 & 2	mm ²	3 x 1,5 / 3 x 1,5	3 x 1,5 / 3 x 1,5	3 x 2,5 / 3 x 1,5	3 x 2,5 / 3 x 1,5		
Water volume	L	185	185	185	185		
Material inside tank		Stainless steel	Stainless steel	Stainless steel	Stainless steel		
Outdoor unit		WH-UD03HE5-1	WH-UD05HE5-1	WH-UD07HE5-1	WH-UD09HE5-1		
Sound pressure level Heating / Cooling	dB(A)	48 / 47	49 / 48	50 / 48	51 / 50		
Sound power level Heating / Cooling	dB	64 / 65	65 / 66	68 / 66	69 / 68		
Dimensions / Weight H x W x D	mm / kg	622 x 824 x 298 / 39	622 x 824 x 298 / 39	795 x 900 x 320 / 66	795 x 900 x 320 / 66		
Refrigerant (R410A)	kg	1,20	1,20	1,45	1,45		
Pipe diameter Liquid / Gas	Inch (mm)	1/4 (6,35) / 1/2 (12,7)	1/4 (6,35) / 1/2 (12,7)	1/4 (6,35) / 5/8 (15,88)	1/4 (6,35) / 5/8 (15,88)		
Pipe length range / Elevation difference (in/out)	m	3 ~ 15 / 5	3 ~ 15 / 5	3 ~ 30 / 20	3 ~ 30 / 20		
Pipe length for additional gas / Additional gas amount	m / g/m	10 / 20	10 / 20	10 / 30	10 / 30		
Operation range Outdoor ambient	J°	-20 ~ +35	-20 ~ +35	-20 ~ +35	-20 ~ +35		
Water outlet Heating / Cooling	J° [20 ~ 55 / 5 ~ 20	20 ~ 55 / 5 ~ 20	20 ~ 55 / 5 ~ 20	20 ~ 55 / 5 ~ 20		

1) System label with controller. * Tentative values

Aquarea All in One High performance Bi-Bloc Single Phase / Three Phase. Heating and Cooling

to indoor)	iase (power t	Three Pl	Single Phase (power to indoor)								
8 KIT-ADC16GE8	KIT-ADC12GE8	KIT-ADC9GE8	KIT-ADC16GE5	KIT-ADC12GE5	KIT-ADC9GE5	KIT-ADC7GE5	KIT-ADC5GE5	KIT-ADC3GE5			(it
16,00	12,00	9,00	16,00	12,00	9,00	7,00	5,00	3,20	kW	heating water at 35°C)	leating capacity at +7°C (
4,28	4,74	4,84	4,28	4,74	4,13	4,46	4,63	5,00	W/W	er at 35°C)	COP at +7°C (heating wate
12,20	10,00	7,00	12,20	10,00	7,00	6,00	4,50	3,20	kW	cooling water at 7/12°C)	Cooling capacity at 35°C (d
2,56	2,85	3,17	2,56	2,81	2,43	2,63	2,69	3,08	W/W	r at 7/12°C)	ER at 35°C (cooling water
A	++ / A ++ / ·		A++ / A	A++ /		A++ / A	A++ / <		DHW	35°C / at 55°C / at 55°C for	nergy Efficiency Class at
j9E8	H-ADC0916G	W	1216G6E5	WH-ADC		D309G3E5	WH-ADCO				ndoor unit
33 / 33	33 / 33	33 / 33	33 / 33	33 / 33	28 / 28	28 / 28	28 / 28	28 / 28	dB(A)	Heating / Cooling	Sound pressure level
/ 139	0 x 598 x 717	1.80	8 x 717 / —	1.800 x 59		x 717 / 135	1.800 x 598		mm / kg	H x W x D)imensions / Net Weight
9	9	9	6	6	3	3	3	3	kW	tric heater	Capacity of integrated elec
16 / 16	16 / 16	16 / 16	30 / 30	30 / 30	30 / 15	30 / 15	15 / 15	15 / 15	A		Recommended Fuse
5 5 x 1,5 / 5 x 1,5	5 x 1,5 / 5 x 1,5	5 x 1,5 / 5 x 1,5	3 x 4,0 / 3 x 4,0	3 x 4,0 / 3 x 4,0	3 x 2,5 / 3 x 1,5	3 x 2,5 / 3 x 1,5	3 x 1,5 / 3 x 1,5	3 x 1,5 / 3 x 1,5	mm ²	supply 1 & 2	Recommended cable size, :
185	185	185	185	185	185	185	185	185	L		Vater volume
l Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel			Aaterial inside tank
8 WH-UD16FE8	WH-UD12FE8	WH-UD09FE8	WH-UD16FE5	WH-UD12FE5	WH-UD09FE5	WH-UD07FE5	WH-UD05EE5	WH-UD03EE5)utdoor unit
55 / 54	52 / 50	51 / 49	55 / 54	52 / 50	51 / 50	50 / 48	49 / 48	48 / 47	dB(A)	Heating / Cooling	Sound pressure level
70 / 72	67 / 68	66 / 67	70 / 72	67 / 68	67 / 68	66 / 66	66 / 66	65 / 65	dB	Heating / Cooling	Gound power level
/ 108	0 x 900 x 320 .	1.34) x 320 / 101	1.340 x 900	x 320 / 66	795 x 900	x 298 / 39	622 x 824	mm / kg	H x W x D)imensions / Weight
2,55	2,55	2,55	2,55	2,55	1,45	1,45	1,20	1,20	kg		Refrigerant (R410A)
	i,88)	(9,52) / 5/8 (15	3/8		5/8 (15,88)	1/4 (6,35) /	1/2 (12,7)	1/4 (6,35)	Inch (mm)	Liquid / Gas	Pipe diameter
3 ~ 30 / 20	3 ~ 30 / 20	3 ~ 30 / 20	3 ~ 30 / 20	3 ~ 30 / 20	3 ~ 30 / 20	3 ~ 30 / 20	3 ~ 15 / 5	3 ~ 15 / 5	m	on difference (in/out)	Pipe length range / Elevati
10 / 50	10 / 50	10 / 50	10 / 50	10 / 50	10 / 30	10 / 30	10 / 20	10 / 20	m / g/m	gas / Additional gas amount	Pipe length for additional g
-20 ~ +35	-20 ~ +35	-20 ~ +35	-20 ~ +35	-20 ~ +35	-20 ~ +35	-20 ~ +35	-20 ~ +35	-20 ~ +35	°C	Outdoor ambient	peration range
) 25~55/5~20	25 ~ 55 / 5 ~ 20	25 ~ 55 / 5 ~ 20	25 ~ 55 / 5 ~ 20	25~55/5~20	25 ~ 55 / 5 ~ 20	25 ~ 55 / 5 ~ 20	25 ~ 55 / 5 ~ 20	25 ~ 55 / 5 ~ 20	°C	Heating / Cooling	Vater outlet
3 ~ 1 -20 0 25 ~	2,35 ,88] 3 ~ 30 / 20 10 / 50 -20 ~ +35 25 ~ 55 / 5 ~ 20	2,55 (9,52) / 5/8 (15 3 ~ 30 / 20 10 / 50 -20 ~ +35 25 ~ 55 / 5 ~ 20	3/8 3 ~ 30 / 20 10 / 50 -20 ~ +35 25 ~ 55 / 5 ~ 20	2,55 3 ~ 30 / 20 10 / 50 -20 ~ +35 25 ~ 55 / 5 ~ 20	1,45 5/8 (15,88) 3 ~ 30 / 20 10 / 30 -20 ~ +35 25 ~ 55 / 5 ~ 20	1,45 1/4 (6,35) / 3 ~ 30 / 20 10 / 30 -20 ~ +35 25 ~ 55 / 5 ~ 20	1,20 1/2 (12,7) 3 ~ 15 / 5 10 / 20 -20 ~ +35 25 ~ 55 / 5 ~ 20	1,20 1/4 (6,35), 3 ~ 15 / 5 10 / 20 -20 ~ +35 25 ~ 55 / 5 ~ 20	nch (mm) m m / g/m °C °C	Liquid / Gas on difference (in/out) jas / Additional gas amount Outdoor ambient Heating / Cooling	Virgenant (14104) Vipe diameter Vipe length range / Elevati Vipe length for additional g Operation range Vater outlet

Aquarea All in One T-CAP Bi-Bloc Single Phase /

Three Phase. Heating and Cooling

			Single Phase (p	ower to indoor)	er to indoor) Three Phase (power to indo		
Kit			KIT-AXC9GE5	KIT-AXC12GE5	KIT-AXC9GE8	KIT-AXC12GE8	KIT-AXC16GE8
Heating capacity at +7°C (h	neating water at 35°C)	kW	9,00	12,00	9,00	12,00	16,00
COP at +7°C (heating water	r at 35°C)	W/W	4,84	4,74	4,84	4,74	4,28
Cooling capacity at 35°C (c	ooling water at 7/12°C)	kW	7,00	10,00	7,00	10,00	12,20
EER at 35°C (cooling water	at 7/12°C)	W/W	3,17	2,81	3,17	2,81	2,56
Energy Efficiency Class at 3	15°C / at 55°C / at 55°C for	DHW	A++ / A++ / A	A++ / A++ / A	A++ / A++ / A	A++ / A++ / A	A++ / A++ / A
Indoor unit			WH-ADC1216G6E5	WH-ADC1216G6E5	WH-ADC0916G9E8	WH-ADC0916G9E8	WH-ADC0916G9E8
Sound pressure level	Heating / Cooling	dB(A)	33 / 33	33 / 33	33 / 33	33 / 33	33 / 33
Dimensions / Net Weight	HxWxD	mm / kg	1.800 x 598 x 717 / 137	1.800 x 598 x 717 / 137	1.800 x 598 x 717 / 139	1.800 x 598 x 717 / 139	1.800 x 598 x 717 / 139
Capacity of integrated elect	ric heater	kW	6	6	9	9	9
Recommended Fuse		A	30 / 30	30 / 30	16 / 16	16 / 16	16 / 16
Recommended cable size, s	upply 1 & 2	mm ²	3 x 4,0 / 3 x 4,0	3 x 4,0 / 3 x 4,0	5 x 1,5 / 5 x 1,5	5 x 1,5 / 5 x 1,5	5 x 1,5 / 5 x 1,5
Water volume		L	185	185	185	185	185
Material inside tank			Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Outdoor unit			WH-UX09FE5	WH-UX12FE5	WH-UX09FE8	WH-UX12FE8	WH-UX16FE8
Sound pressure level	Heating / Cooling	dB(A)	51 / 49	52 / 50	51 / 49	52 / 50	55 / 54
Sound power level	Heating / Cooling	dB	66 / 67	67 / 68	66 / 67	67 / 68	70 / 71
Dimensions / Weight	H x W x D	mm / kg	1.340 x 900 x 320 / 101	1.340 x 900 x 320 / 101	1.340 x 900 x 320 / 109	1.340 x 900 x 320 / 109	1.340 x 900 x 320 / 119
Refrigerant (R410Å)		kg	2,85	2,85	2,85	2,85	2,90
Pipe diameter	Liquid / Gas	Inch (mm)	3/8 (9,52) / 5/8 (15,88)	3/8 (9,52) / 5/8 (15,88)	3/8 (9,52) / 5/8 (15,88)	3/8 (9,52) / 5/8 (15,88)	3/8 (9,52) / 5/8 (15,88)
Pipe length range / Elevatio	on difference (in/out)	m	3 ~ 30 / 20	3 ~ 30 / 20	3 ~ 30 / 20	3 ~ 30 / 20	3 ~ 30 / 20
Pipe length for additional g	as / Additional gas amount	m / g/m	10 / 50	10 / 50	10 / 50	10 / 50	10 / 50
Operation range	Outdoor ambient	°C	-20 ~ +35	-20 ~ +35	-20 ~ +35	-20 ~ +35	-20 ~ +35
Water outlet	Heating / Cooling	°C	25 ~ 55 / 5 ~ 20	25 ~ 55 / 5 ~ 20	25 ~ 55 / 5 ~ 20	25 ~ 55 / 5 ~ 20	25 ~ 55 / 5 ~ 20

NEW / AQ	UAREA
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				Single Phase Hea	ating and Cooling	
Kit			KIT-WC03H3E5	KIT-WC05H3E5	KIT-WC07H3E5	KIT-WC09H3E5
Heating capacity at +7°C (heating water at 35°C)	kW	3,20	5,00	7,00	9,00
COP at +7°C (heating wate	er at 35°C)	W/W	5,00	4,63	4,46	4,13
Cooling capacity at 35°C (o	cooling water at 7/12°C)	kW	3,20	4,50	6,00	7,00
EER at 35°C (cooling wate	r at 7/12°C)	W/W	3,08	2,69	2,63	2,43
Energy Efficiency Class at	35°C / 55°C		A++ * / A++	A++ * / A++	A++ * / A++	A++ * / A++
System label 35°C / 55°C1			A+++ / A++	A+++ / A++	A++++ / A++	(A+++) / (A++
Indoor unit			WH-SDC03H3E5	WH-SDC05H3E5	WH-SDC07H3E5	WH-SDC09H3E5
Sound pressure level	Heating / Cooling	dB(A)	28 / 28	28 / 28	30 / 30	30 / 30
Dimensions / Weight	H x W x D	mm / kg	892 x 500 x 340 / 44	892 x 500 x 340 / 44	892 x 500 x 340 / 44	892 x 500 x 340 / 44
A class Pump Number of speeds			Variable Speed	Variable Speed	Variable Speed	Variable Speed
A class runip	Input power (Min / Max)	W	30 / 100	33 / 106	34 / 114	40 / 120
Capacity of integrated elec	tric heater	kW	3	3	3	3
Recommended Fuse		A	15 / 30	15 / 30	15 / 30	15 / 30
Recommended cable size,	supply 1 & 2	mm ²	3 x 1,5 / 3 x 1,5	3 x 1,5 / 3 x 1,5	3 x 1,5 / 3 x 1,5	3 x 1,5 / 3 x 1,5
Outdoor unit			WH-UD03HE5	WH-UD05HE5	WH-UD07HE5	WH-UD09HE5
Sound pressure level	Heating / Cooling	dB(A)	47 47	48 / 48	50 / 48	51 / 50
Sound power level	Heating / Cooling	dB	— / 65	— / 66	68 / 66	69 / 68
Dimensions / Weight	H x W x D	mm / kg	622 x 824 x 298 / 39	622 x 824 x 298 / 39	795 x 900 x 320 / 66	795 x 900 x 320 / 66
Refrigerant (R410A)		kg	1,20	1,20	1,45	1,45
Pipe diameter	Liquid / Gas	Inch (mm)	1/4 (6,35) / 1/2 (12,7)	1/4 (6,35) / 1/2 (12,7)	1/4 (6,35) / 5/8 (15,88)	1/4 (6,35) / 5/8 (15,88)
Pipe length range / Elevati	on difference (in/out)	m	3 ~ 15 / 5	3 ~ 15 / 5	3 ~ 30 / 20	3 ~ 30 / 20
Pipe length for additional g	gas / Additional gas amount	m / g/m	10 / 20	10 / 20	10 / 30	10 / 30
Operation range	Outdoor ambient	°C	-20 ~ +35	-20 ~ +35	-20 ~ +35	-20 ~ +35
Water outlet	Heating / Cooling	10	20 - 55 / 5 - 20	20 - 55 / 5 - 20	20 - 55 / 5 - 20	20 - 55 / 5 - 20

Aquarea H Generation High Performance Bi-Bloc Single Phase. Heating and Cooling - SDC

 Water outlet
 Heating / Cooling
 °C
 20 ~ 55 / 5 ~ 20
 20 ~ 55 / 5 ~ 20
 20 ~ 55 / 5 ~ 20

 Remark to energy efficiency class: These indicators are based on the official EP regulations (EV regulations N° 811/2013, EN 14511 and EN 14825) for heat pumps, which is officially binding from September 2019. Efficiency classes marked with * would meet the new regulations from September 2019 to a classification as A+++. 1) System label with controller. Tentative data.

				Three Phase (power to indoor)							
Kit			KIT-WC09H3E81	KIT-WC12H9E81	KIT-WC16H9E8 ¹						
Heating capacity at +7°C (I	heating water at 35°C)	kW	9,00	12,00	16,00						
COP at +7°C (heating wate	r at 35°C)	W/W	4,84	4,14	4,28						
Cooling capacity at 35°C (c	cooling water at 7/12°C)	kW	7,00	10,00	12,20						
EER at 35°C (cooling water	r at 7/12°C)	W/W	3,17	2,81	2,56						
Energy Efficiency Class at 3	35°C / at 55°C		A++ / A++	A++ / A++	A++ / A++						
Indoor unit			WH-SDC09H3E8	WH-SDC12H9E8	WH-SDC16H9E8						
Sound pressure level	Heating / Cooling	dB(A)	28 / 28	28 / 28	28 / 28						
Dimensions / Weight	H x W x D	mm / kg	892 x 500 x 340 / 44	892 x 500 x 340 / 44	892 x 500 x 340 / 44						
Dump	Number of speeds		Variable Speed	Variable Speed	Variable Speed						
Pullip	Input power (Min / Max)	W	32 / 102	34 / 110	30 / 105						
Capacity of integrated electric heater kW			3	3	3						
Recommended Fuse		A	15 / 30	15 / 30	15 / 30						
Recommended cable size, s	supply 1 & 2	mm ²	3 x 1,5 / 3 x 1,5	3 x 1,5 / 3 x 1,5	3 x 1,5 / 3 x 1,5						
Outdoor unit			WH-UD09HE8	WH-UD12HE8	WH-UD16HE8						
Sound pressure level	Heating / Cooling	dB(A)	51 / 49	52 / 50	55 / 54						
Sound power level	Heating / Cooling	dB	-/-	- / -	_/_						
Dimensions / Weight	H x W x D	mm / kg	1.340 x 900 x 320 / 108	1.340 x 900 x 320 / 108	1.340 x 900 x 320 / 108						
Refrigerant (R410A)		kg	2,55	2,55	2,55						
Pipe diameter	Liquid / Gas	Inch (mm)	3/8 (9,52) / 5/8 (15,88)	3/8 (9,52) / 5/8 (15,88)	3/8 (9,52) / 5/8 (15,88)						
Pipe length range / Elevation	on difference (in/out)	m	3 ~ 30 / 20	3 ~ 30 / 20	3 ~ 30 / 20						
Pipe length for additional gas / Additional gas amount		m / g/m	10 / 50	10 / 50	10 / 50						
Operation range Outdoor ambient		°C	-20 ~ +35	-20 ~ +35	-20 ~ +35						
Water outlet	Heating / Cooling	°C	20 ~ 55 / 5 ~ 20	20 ~ 55 / 5 ~ 20	20 ~ 55 / 5 ~ 20						
1) Available in December 2016.											

Aquarea H Generation T-CAP Bi-Bloc Three Phase.

Heating and Cooling - SXC

			Three	Phase (power to in	door)	Three Phase. New Super Quiet outdoor unit			
Kit			KIT-WXC09H3E81	KIT-WXC12H9E81	KIT-WXC16H9E81	KIT-WQC09H3E8	KIT-WQC12H9E8	KIT-WQC16H9E8	
Heating capacity at +7°C (I	neating water at 35°C)	kW	9,00	12,00	16,00 9,00		12,00	16,00	
COP at +7°C (heating wate	r at 35°C)	W/W	4,84	4,74	4,28	4,84	4,14	4,28	
Cooling capacity at 35°C (c	ooling water at 7°C)	kW	7,00	7,00 10,00 12,20		7,00	10,00	12,20	
EER at 35°C (cooling water	at 7°C)	W/W	3,17	2,81	2,57	3,17	2,81	2,56	
Energy Efficiency Class at 3	35°C / at 55°C		A++ / A++	A++ / A++	A++ / A++	A++ / A++	A++ / A++	A++ / A++	
Indoor unit			WH-SXC09H3E8	WH-SXC12H9E8	WH-SXC16H9E8	WH-SXC09H3E8	WH-SXC12H9E8	WH-SXC16H9E8	
Sound pressure level	Heating / Cooling	dB(A)	28 / 28	28 / 28	28 / 28	28 / 28	28 / 28	28 / 28	
Dimensions / Weight*	H x W x D	mm / kg	892 x 500 x 340 / 44	892 x 500 x 340 / 44	892 x 500 x 340 / 44	892 x 500 x 340 / 44	892 x 500 x 340 / 44	892 x 500 x 340 / 44	
Dump	Number of speeds		Variable Speed	Variable Speed	Variable Speed	Variable Speed	Variable Speed	Variable Speed	
rump	Input power (Min / Max)	W	32 / 102	34 / 110	30 / 105	32 / 102	34 / 110	30 / 105	
Capacity of integrated elect	tric heater	kW 3 3 3 3 3 3		3					
Recommended Fuse		A	15 / 30	15 / 30	15 / 30	15 / 30	15 / 30	15 / 30	
Recommended cable size, s	supply 1 & 2	mm ²	3 x 1,5 / 3 x 1,5	3 x 1,5 / 3 x 1,5 3 x 1,5 / 3 x 1,5 3 x 1,5 3 x 1,5 / 3 x 1,5		3 x 1,5 / 3 x 1,5	3 x 1,5 / 3 x 1,5	3 x 1,5 / 3 x 1,5	
Outdoor unit			WH-UX09HE8	WH-UX12HE8	WH-UX16HE8	WH-UQ09HE8	WH-UQ12HE8	WH-UQ16HE8	
Sound pressure level	Heating / Cooling	dB(A)	51 / 49	52 / 50	55 / 54	Pending data	Pending data	Pending data	
Sound power level	Heating / Cooling	dB	-/-	-/-	-/-	-/-	-/-	_/_	
Dimensions / Weight	H x W x D	mm / kg	1.340 x 900 x 320 / 109	1.340 x 900 x 320 / 109	1.340 x 900 x 320 / 119	1.410 x 1.283 x 320 / 147	1.410 x 1.283 x 320 / 147	1.410 x 1.283 x 320 / 14	
Refrigerant (R410A)		kg	2,85	2,85	2,90	1,45	2,10	2,10	
Pipe diameter Liquid / Gas Inc		Inch (mm)	3/8 (9,52) / 5/8 (15,88)	3/8 (9,52) / 5/8 (15,88)	3/8 (9,52) / 5/8 (15,88)	3/8 (9,52) / 5/8 (15,88)	3/8 (9,52) / 5/8 (15,88)	3/8 (9,52) / 5/8 (15,88	
Pipe length range / Elevation difference (in/out) m		m	3 ~ 30 / 20	3 ~ 30 / 20	3 ~ 30 / 20	3 ~ 30 / 20	3 ~ 30 / 20	3 ~ 30 / 20	
Pipe length for additional gas / Additional gas amount m / g			10 / 50	10 / 50	10 / 50	10 / 50	10 / 50	10 / 50	
Operation range	Outdoor ambient	°C	-20 ~ +35	-20 ~ +35	-20 ~ +35	-20 ~ +35	-20 ~ +35	-20 ~ +35	
Water outlet	Heating / Cooling	°C	20 - 60 / 5 - 20	20 - 60 / 5 - 20	20 - 60 / 5 - 20	20 - 60 / 5 - 20	20 - 60 / 5 - 20	20 - 60 / 5 - 20	

1) Available in May 2017. * Tentative values.

COP classification is at 230V only in accordance with EU directive 2003/32/EC. Sound pressure measured at 1m from the outdoor unit and at 1,5m height. Heating sound pressure measured at +7°C (heating water at 55°C). Performance in agreement with EN14511.

Aquarea H Generation High Performance Bi-Bloc Three Phase. Heating and Cooling - SDC

Aquarea High Performance

Bi-Bloc Single Phase / Three Phase. Heating and Cooling - SDC

		Single Phase (power to indoor) Three Phase (power to indoor)					
Kit			KIT-WC12F6E5	KIT-WC16F6E5	KIT-WC09F3E8	KIT-WC12F9E8	KIT-WC16F9E8
Heating capacity at +7°C (I	heating water at 35°C)	kW	12,0	16,00	9,00	12,00	16,00
COP at +7°C (heating wate	r at 35°C)	W/W	4,74	4,28	4,84	4,74	4,28
Cooling capacity at 35°C (c	ooling water at 7/12°C)	kW	10,00	12,20	7,00	10,00	12,20
EER at 35°C (cooling water	at 7/12°C)	W/W	2,81	2,56	3,17	2,85	2,57
Energy Efficiency Class at 3	35°C / at 55°C		A++ / A++				
Indoor unit			WH-SDC12F6E5	WH-SDC16F6E5	WH-SDC09F3E8	WH-SDC12F9E8	WH-SDC16F9E8
Sound pressure level	Heating / Cooling	dB(A)	33 / 33	33 / 33	33 / 33	33 / 33	33 / 33
Dimensions / Weight	H x W x D	mm / kg	892 x 502 x 353 / 45	892 x 502 x 353 / 46	892 x 502 x 353 / 46	892 x 502 x 353 / 46	892 x 502 x 353 / 47
Dimensions / Weight Pump	Number of speeds		7	7	7	7	7
ruiiip	Input power (Min / Max)	W	34 / 110	30 / 105	32 / 102	34 / 110	30 / 105
Capacity of integrated elec	tric heater	kW	6	6	3	9	9
Recommended Fuse		A	30 / 30	30 / 30	16 / 16	16 / 16	16 / 16
Recommended cable size, s	supply 1 & 2	mm ²	3 x 4,0 or 6,0 / 3 x 4,0	3 x 4,0 or 6,0 / 3 x 4,0	5 x 1,5 / 3 x 1,5	5 x 1,5 / 5 x 1,5	5 x 1,5 / 5 x 1,5
Outdoor unit			WH-UD12FE5	WH-UD16FE5	WH-UD09FE8	WH-UD12FE8	WH-UD16FE8
Sound pressure level	Heating / Cooling	dB(A)	52 / 50	55 / 54	51 / 49	52 / 50	55 / 54
Sound power level	Heating / Cooling	dB	67 / 68	70 / 72	66 / 67	67 / 68	70 / 72
Dimensions / Weight	H x W x D	mm / kg	1.340 x 900 x 320 / 101	1.340 x 900 x 320 / 101	1.340 x 900 x 320 / 108	1.340 x 900 x 320 / 108	1.340 x 900 x 320 / 108
Refrigerant (R410A)		kg	2,55	2,55	2,55	2,55	2,55
Pipe diameter	Liquid / Gas	Inch (mm)	3/8 (9,52) / 5/8 (15,88)	3/8 (9,52) / 5/8 (15,88)	3/8 (9,52) / 5/8 (15,88)	3/8 (9,52) / 5/8 (15,88)	3/8 (9,52) / 5/8 (15,88)
Pipe length range / Elevation	Pipe length range / Elevation difference (in/out) m			3 ~ 30 / 20	3 ~ 30 / 20	3 ~ 30 / 20	3 ~ 30 / 20
Pipe length for additional gas / Additional gas amount m / g/m			10 / 50	10 / 50	10 / 50	10 / 50	10 / 50
Operation range	Outdoor ambient	°C	-20 ~ +35	-20 ~ +35	-20 ~ +35	-20 ~ +35	-20 ~ +35
Water outlet	Heating / Cooling	°C	25 ~ 55 / 5 ~ 20	25 ~ 55 / 5 ~ 20	25 ~ 55 / 5 ~ 20	25 ~ 55 / 5 ~ 20	25 ~ 55 / 5 ~ 20

Aquarea T-CAP Bi-Bloc Single Phase / Three Phase. Heating a

Three Phase. Heating and Cooling - SXC

			Single Phase (p	ower to indoor)		Three Phase (power to indoor)				
Kit			KIT-WXC09F3E5	KIT-WXC12F6E5	KIT-WXC09F3E8	KIT-WXC09F9E8	KIT-WXC12F9E8	KIT-WXC16F9E8		
Heating capacity at +7°C (I	kW	9,00	12,00	9,00	9,00	12,00	16,00			
COP at +7°C (heating wate	r at 35°C)	W/W	4,84	4,74	4,84	4,84	4,74	4,28		
Cooling capacity at 35°C (c	ooling water at 7°C)	kW	7,00	10,00	7,00	7,00	10,00	12,20		
EER at 35°C (cooling water	at 7°C)	W/W	3,17	2,81	3,17	3,17	2,81	2,57		
Energy Efficiency Class at 3	35°C / at 55°C		A++ / A++	A++ / A++	A++ / A++	A++ / A++	A++ / A++	A++ / A++		
Indoor unit			WH-SXC09F3E5	WH-SXC12F6E5	WH-SXC09F3E8	WH-SXC09F9E8	WH-SXC12F9E8	WH-SXC16F9E8		
Sound pressure level	Heating / Cooling	dB(A)	33 / 33	33 / 33	33 / 33	33 / 33	33 / 33	33 / 33		
Dimensions / Weight	HxWxD	mm / kg	892 x 502 x 353 / 44	892 x 502 x 353 / 45	892 x 502 x 353 / 45	892 x 502 x 353 / 45	892 x 502 x 353 / 46	892 x 502 x 353 / 52		
D	Number of speeds		7	7	7	7	7	7		
Pump	Input power (Min / Max)	W	32 / 102	34 / 110	32 / 102	32 / 102	34 / 110	KIT-WXC16F9E8 KIT-WXC16F9E8 16,00 4,28 12,20 2,57 Cara / ▲ Δ * F9E8 WH-SXC16F9E8 33 / 33 33 53 / 46 892 x 502 x 353 / 52 7 0 30 / 105 9 16 / 16 16 x 1,5 / 5 x 1,5 / 5 x 1,5 FE8 WH-UX16FE8 55 / 54 70 / 71 20 / 109 1.340 x 900 x 320 / 115 20 3 ~ 30 / 20 15,88 3/8 (9,52) / 5/8 (15,88) 20 3 ~ 30 / 20 10 / 50 10 / 50		
Capacity of integrated elect	tric heater	kW	3	6	3	9	9	9		
Recommended Fuse		A	30 / 30	30 / 30	16 / 16	16 / 16	16 / 16	16 / 16		
Recommended cable size, s	supply 1 & 2	mm ²	3 x 4,0 or 6,0 / 3 x 4,0	3 x 4,0 or 6,0 / 3 x 4,0	5 x 1,5 / 3 x 1,5	5 x 1,5 / 5 x 1,5	5 x 1,5 / 5 x 1,5	5 x 1,5 / 5 x 1,5		
Outdoor unit			WH-UX09FE5	WH-UX12FE5	WH-UX09FE8	WH-UX09FE8	WH-UX12FE8	WH-UX16FE8		
Sound pressure level	Heating / Cooling	dB(A)	51 / 49	52 / 50	51 / 49	51 / 49	52 / 50	55 / 54		
Sound power level	Heating / Cooling	dB	66 / 67	67 / 68	66 / 67	66 / 67	67 / 68	70 / 71		
Dimensions / Weight	HxWxD	mm / kg	1.340 x 900 x 320 / 101	1.340 x 900 x 320 / 101	1.340 x 900 x 320 / 109	1.340 x 900 x 320 / 109	1.340 x 900 x 320 / 109	1.340 x 900 x 320 / 119		
Refrigerant (R410Å)		kg	2,85	2,85	2,85	2,85	/ 16 16 / 16 / 5 x 1,5 5 x 1,5 / 5 x 1,5 X09FE8 WH-UX12FE8 W / 49 52 / 50 / / 67 67 / 68 D x 320 / 109 1.340 x 900 x 320 / 109 1.340 .85 2,85 5 / 8 (15,88) 3/8 (9,52) / 5/8 (15,88) 3/8 (5			
Pipe diameter	Liquid / Gas	Inch (mm)	3/8 (9,52) / 5/8 (15,88)	3/8 (9,52) / 5/8 (15,88)	3/8 (9,52) / 5/8 (15,88)	3/8 (9,52) / 5/8 (15,88)	2,05 2,05 2,05 (52) / 5/8 (15,88) 3/8 (9,52) / 5/8 (15,88) 3/8			
Pipe length range / Elevation	ipe length range / Elevation difference (in/out) m		3 ~ 30 / 20	3 ~ 30 / 20	3 ~ 30 / 20	3 ~ 30 / 20	3 ~ 30 / 20	3 ~ 30 / 20		
Pipe length for additional g	as / Additional gas amount	m / g/m	10 / 50	10 / 50	10 / 50	10 / 50	10 / 50	10 / 50		
Operation range	Outdoor ambient	°C	-20 ~ +35	-20 ~ +35	-20 ~ +35	-20 ~ +35	-20 ~ +35	-20 ~ +35		
Water outlet	Heating / Cooling	°C	25 ~ 55 / 5 ~ 20	25 ~ 55 / 5 ~ 20	25 ~ 55 / 5 ~ 20	25 ~ 55 / 5 ~ 20	25 ~ 55 / 5 ~ 20	25 ~ 55 / 5 ~ 20		

Aquarea HT Bi-Bloc Single Phase / Three Phase. Heating Only - SHF

			Single Phase (p	oower to indoor)	Three Phase (power to indoor)			
Kit			KIT-WHF09F3E5	KIT-WHF12F6E5	KIT-WHF09F3E8	KIT-WHF12F9E8		
Heating capacity at +7°C	(heating water at 35°C)	kW	9,00	12,00	9,00	12,00		
COP at +7°C (heating wat	er at 35°C)	W/W	4,64	4,46	4,64	4,46		
Heating capacity at +7°C	(heating water at 65°C)	kW	9,00 12,00 9,00			12,00		
COP at +7°C (heating wat	er at 65°C)	W/W	2,27	2,22	2,29	2,22		
Energy Efficiency Class at	35°C / at 55°C		A++ / A++	A++ / A++	A++ / A++	A++ / A++		
Indoor unit			WH-SHF09F3E5	WH-SHF12F6E5	WH-SHF09F3E8	WH-SHF12F9E8		
Sound pressure level		dB(A)	33	33	33	33		
Dimensions / Weight	H x W x D	mm / kg	892 x 502 x 353 / 46	892 x 502 x 353 / 47	892 x 502 x 353 / 47	892 x 502 x 353 / 48		
Dump	Number of speeds	-	7	7	7	7		
runp	Input power (Min / Max)	W	38 / 100	40 / 106	38 / 100	40 / 106		
Capacity of integrated ele	pacity of integrated electric heater		3	6	3	9		
Recommended Fuse		A	30 / 30	30 / 30	30 / 16	30 / 16		
Recommended cable size,	supply 1 & 2	mm ²	3 x 4,0 or 6,0 / 3 x 4,0 3 x 4,0 or 6,0 / 3 x 4,0		5 x 1,5 / 3 x 1,5	5 x 1,5 / 5 x 1,5		
Outdoor unit			WH-UH09FE5	WH-UH12FE5	WH-UH09FE8	WH-UH12FE8		
Sound pressure level		dB(A)	51	52	51	52		
Sound power level		dB	66	67	66	67		
Dimensions / Weight	H x W x D	mm / kg	1.340 x 900 x 320 / 104	1.340 x 900 x 320 / 104	1.340 x 900 x 320 / 110	1.340 x 900 x 320 / 110		
Refrigerant (R407C)		kg	2,90	2,90	2,90	2,90		
Pipe diameter	Liquid / Gas	Inch (mm)	3/8 (9,52) / 5/8 (15,88)	3/8 (9,52) / 5/8 (15,88)	3/8 (9,52) / 5/8 (15,88)	3/8 (9,52) / 5/8 (15,88)		
Pipe length range / Elevation difference (in/out) r			3 ~ 30 / 20	3 ~ 30 / 20	3 ~ 30 / 20	3 ~ 30 / 20		
Pipe length for additional	gas / Additional gas amount	m / g/m	10 / 70	10 / 70	10 / 70	10 / 70		
Operation range Outdoor ambient		°C	-20 ~ +35	-20 ~ +35	-20 ~ +35	-20 ~ +35		
Water outlet		°C	25 ~ 65	25 ~ 65	25 ~ 65	25 ~ 65		

25

High Performance 6 3,74 Mono-Bloc Single Phase. 3.56 4.76 11,7 17,3 Heating and Cooling - MDC 16,5 22,0 24.0 26,0

26,0

30 / 30

3 x 4,0 or 6,0 / 3 x 4,0

-20 ~ +35

WH-MDC16G6E5

16,00

4,28

12,20

2,56

A++ / A++

55 / 54

72 / 72

2,10

38 / 120

25 ~ 55 / 5 ~ 20 Water outlet Heating / Cooling °C 20 ~ 55 / 5 ~ 20 20~55/5~20 20 ~ 55 / 5 ~ 20 25 ~ 55 / 5 ~ 20 COP classification is at 230V only in accordance with EU directive 2003/32/EC. Sound pressi Authorized service partner or Authorized installer can enable the cooling mode through a sp ent with EN14511. ured at 1m from the outdoor unit and at 1,5m height. eration via the remote controller on site. °C (heating water at 55°C). Pe eating sound pre red at ice in ag

Single Phase

WH-MDC05F3E5

5,00

5,08

4,50

3,33

A++ / A++

49 / 47

65/65

1,42

34 / 96

0,985

1.35

4,5

6,1

19.5

13,0

30 / 15

3 x 4,0 or 6,0 / 3 x 4,0

-20 ~ +35

kW

kW

W/W

dB(A)

mm / kg

dB

kg

W

kW

kW

kW

A

A

А

A

A

mm²

°C

W/W

WH-MDC06G3E5

6,00

4,46

5,50

2,74

A++ / A++

49 / 47

65/65

1,45

36 / 100

3

1.34

2.01

6,1

93

20.5

13,0

3 x 4,0 or 6,0 / 3 x 4,0

-20 ~ +35

Outdoor unit

Heating capacity at +7°C (heating water at 35°C)

Cooling capacity at 35°C (cooling water at 7°C)

Heating / Cooling

Heating / Cooling

Number of speeds

Input power (Min / Max)

HxWxD

Heating

Cooling

Heating

Cooling

Outdoor ambient

COP at +7°C (heating water at 35°C)

EER at 35°C (cooling water at 7°C)

Capacity of integrated electric heater

Recommended cable size, supply 1 & 2

Sound pressure level

Sound power level

Dimensions / Weight

Refrigerant (R410A)

Running and Starting

Recommended Fuse

Operation range

Pump

Input Power

current

Current 1

Current 2

Energy Efficiency Class at 35°C / at 55°C

Single Phase Heating and Cooling

WH-MDC09G3E5

9,00

4,15

7,00

2,44

A++ / A++

51/49

69 / 67

865 x 1.283 x 320 / 107 865 x 1.283 x 320 / 112 865 x 1.283 x 320 / 112 1.410 x 1.283 x 320 / 147 1.410 x 1.283 x 320 / 147

1,45

39 / 108

2,17

2.87

9,9

13.0

22,9

13,0

30 / 16

3 x 4,0 or 6,0 / 3 x 4,0

-20 ~ +35

WH-MDC12G6E5

12,00

4,74

, 10,00

2,81

A++ / A++

52 / 50

69 / 68

2,10

34 / 110

26,0

30 / 30

3 x 4,0 or 6,0 / 3 x 4,0

-20 ~ +35

Throp Phace

			Jiligie	1 11030		THEETHASE	
Outdoor unit			WH-MXC09G3E5	WH-MXC12G6E5	WH-MXC09G3E8	WH-MXC12G9E8	WH-MXC16G9E8
Heating capacity at +7°C	(heating water at 35°C)	kW	9,00	12,00	9,00	12,00	16,00
COP at +7°C (heating wa	ter at 35°C)	W/W	4,84	4,74	4,84	4,74	4,28
Cooling capacity at 35°C	(cooling water at 7°C)	kW	7,00	10,00	7,00	10,00	12,20
EER at 35°C (cooling wat	er at 7°C)	W/W	3,17	2,81	3,17	Action Action 12,00 4,74 10,00 2,81 \checkmark / \checkmark / \checkmark 52 / 50 $69 / 68$ 410 x 1.283 x 320 / 155 2,30 7 34 / 110 9 2,53 3,56 3,8 5,3 11,9 13,0 16 / 16 5 x 1,5 / 5 x 1,5 -20 - +35 25 - 55 / 5 - 20	2,56
Energy Efficiency Class a	t 35°C / at 55°C		A++ / A++	A++ / A++	A++ / A++	A++ / A++	A++ / A++
Sound pressure level	Heating / Cooling	dB(A)	51 / 49	52 / 50	51 / 49	52 / 50	55 / 54
Sound power level	Heating / Cooling	dB	68 / 67	69 / 68	68 / 67	69 / 68	72 / 72
Dimensions / Weight	H x W x D	mm / kg	1.410 x 1.283 x 320 / 148	1.410 x 1.283 x 320 / 148	1.410 x 1.283 x 320 / 155	1.410 x 1.283 x 320 / 155	1.410 x 1.283 x 320 / 168
Refrigerant (R410A)		kg	2,30	2,30	2,30	2,30	2,55
Pumn	Number of speeds		7	7	7	7	7
ruiiip	Input power (Min / Max)	W	32 / 102	34 / 110	32 / 102	34 / 110	38 / 120
Capacity of integrated ele	ectric heater	kW	3	6	3	9	9
Input Dowor	Heating	kW	1,86	Open Set WN=NAC 120525 WN=NAC 120525 WN=NAC 120526 WN MAC 12052	3,74		
IIIput rowei	Cooling	kW	2,21	3,56	2,21	3,56	4,76
Running and Starting	Heating	A	8,6	11,7	2,8	3,8	5,7
current	Cooling	A	10,2	16,5	3,4	5,3	7,2
Current 1		A	25,0	29,0	14,7	11,9	15,5
Current 2		A	13,0	26,0	13,0	13,0	13,0
Recommended Fuse		A	30 / 30	30 / 30	16 / 16	16 / 16	16 / 16
Recommended cable size	, supply 1 & 2	mm ²	3 x 4,0 or 6,0 / 3 x 4,0	3 x 4,0 or 6,0 / 3 x 4,0	5 x 1,5 / 3 x 1,5	5 x 1,5 / 5 x 1,5	5 x 1,5 / 5 x 1,5
Operation range	Outdoor ambient	J°	-20 ~ +35	-20 ~ +35	-20 ~ +35	-20 ~ +35	-20 ~ +35
Water outlet	Heating / Cooling	0°	25 ~ 55 / 5 ~ 20	25 ~ 55 / 5 ~ 20	25 ~ 55 / 5 ~ 20	25 ~ 55 / 5 ~ 20	25 ~ 55 / 5 ~ 20

			Single	Phase	Three Phase			
Outdoor unit			WH-MHF09G3E5	WH-MHF12G6E5	WH-MHF09G3E8	WH-MHF12G9E8		
Heating capacity at +7°C (heating water at 35°C)	kW	9,00	9,00 12,00		12,00		
COP at +7°C (heating wate	r at 35°C)	W/W	4,64	4,46	4,64	4,46		
Heating capacity at +7°C (heating water at 65°C)	kW	9,00 12,00		9,00	12,00		
COP at +7°C (heating wate	r at 65°C)	W/W	2,27 2,22		2,29	2,22		
Energy Efficiency Class at	35°C / at 55°C		A++ / A++	A++ / A++	A++ / A++	A++ / A++		
Sound pressure level		dB(A)	51	52	51	52		
Sound power level		dB	68	69	68	69		
Dimensions	H x W x D	mm	1.410 x 1.283 x 320	1.410 x 1.283 x 320	1.410 x 1.283 x 320	1.410 x 1.283 x 320		
Weight		kg	151	151	162	162		
Refrigerant (R407C)		kg	1,92	1,92	2,22	2,22		
Duran	Number of speeds		7	7	7	7		
Ритр	Input power (Min / Max)	W	_	_	_	_		
Capacity of integrated elec	tric heater	kW	3 6		3	9		
Input Power		kW	1,94	2,69	1,94	2,69		
Running and Starting curre	nt	A	9,3	12,8	3,0	4,1		
Current 1		A	28,5	29,0	14,5	10,8		
Current 2		A	13,0	26,0	13,0	13,0		
Recommended Fuse		A	30 / 30	30 / 30	16 / 16	16 / 16		
Recommended cable size, supply 1 & 2		mm ²	3 x 4,0 or 6,0 / 3 x 4,0	3 x 4,0 or 6,0 / 3 x 4,0	5 x 1,5 / 3 x 1,5	5 x 1,5 / 5 x 1,5		
Operation range	Outdoor ambient)°	-20 ~ +35	-20 ~ +35	-20 ~ +35	-20 ~ +35		
Water outlet		°C	25 ~ 65	25 ~ 65	25 ~ 65	25 ~ 65		
COP classification is at 230V only in acc	ordance with EU directive 2003/32/EC. Si	ound pressure meas	ured at 1m from the outdoor unit and at 1,5m he	ight. Heating sound pressure measured at +7°C	(heating water at 55°C).Performance in agreem	ent with EN14511.		

Aquarea G Generation

Aquarea G Generation HT

Mono-Bloc Single Phase / Three Phase. Heating Only - MHF

Aquarea G Generation

Mono-Bloc Single Phase / Three Phase. Heating and

T-CAP

Cooling - MXC

Aquarea DHW

Model		Fl	oor standing at -7°	C*			
Reference	PAW-DHWM200A	PAW-DHWM300A	PAW-DHWM300AE	PAW-DHWM80ZNT	PAW-DHWM100ZNT	PAW-DHWM120ZNT	
Voltage / Frequency	V / Hz	230 / 50	230 / 50	230 / 50	230 / 50	230 / 50	230 / 50
Volume	L	208	295	276	80	100	120
Nominal electrical power	W	490	490	490	250	250	250
Energy consumption by chosen cycle A7 / W10-55 ¹	kWh	4,05	5,77	5,96	2,45	2,35	2,51
Energy consumption by chosen cycle A15 / W10-55 ²	kWh	3,95	5,65	5,75	2,04	2,05	2,08
COP DHW (A7 / W10-55) EN 16147 1		3,00	3,33	3,30	2,65	2,63	2,61
COP DHW (A15 / W10-55) EN 16147 2		3,07	3,39	3,38	3,10	3,10	3,10
Energy Efficiency Class		A	A	A	A	A	A
Standby power input according to EN16147	W	28	18	20	19	20	27
Sound power / Sound Pressure on 1m	dB / dB(A)	— / 58	— / 58	— / 58	51,0 / 39,5	51,0 / 39,5	51,0 / 39,5
Refrigerant		R134a	R134a	R134a	R134a	R134a	R134a
Quantity of refrigerant	g	1.100	1.100	1.100	540	540	540
Operating range - air temperature	°C	-7 / +35	-7 / +35	-7 / +35	-7 / +35	-7 / +35	-7 / +35
Height / with air ducts	mm	1.540 x 670 x 690	1.960 x 670 x 690	1.960 x 670 x 690	1.197 x 506 x 533	1.342 x 506 x 533	1.497 x 506 x 533
Connections to the water supply network		G1	G1	G1	G 1/2	G 1/2	G 1/2
Maximum power consumption without heater / with heater	W	490 / 2.490	490 / 2.490	490 / 2.490	- / 2.350	- / 2.350	- / 2.350
Number of electrical heaters x power	W	2 x 1.000	2 x 1.000	2 x 1.000	2 x 1.000	2 x 1.000	2 x 1.000
Working pressure (Storage tank / Heat Exchanger)	Mpa (bar)	0,6 (6) / 0,9 (9)	0,6 (6) / 0,9 (9)	1,0 (10)	1,0 (10)	1,0 (10)	1,0 (10)
Heating with heat pump Min / Max	°C	55 / 65	55 / 65	55 / 65	55 /	55 / —	55 / —
Heating with electrical heater	°C	75	75	75	75	75	75
Dimensions of air ducts	mm / m	Ø160 / —	Ø160 / —	Ø160 / —	Ø125 (150 x 70) / 10	Ø125 (150 x 70) / 10	Ø125 (150 x 70) / 10
Net weight / with water	kg	149 / 365	164 / 459	207 /480	58 / 138	62 / 162	68 / 188
1) Heating of sanitary water up to 55°C with inlet air temperature at 7°C, humidity at 85	% and inlet wate	temperature at 10°C. Accordin	o to FN16147, 2) Heating of sa	nitary water un to 55°C with in	let air temnerature at 15°C. hu	midity at 74% and inlet water f	emperature at 10°C. According

 Heating of sanitary water up to 55°C with inlet air temperature at 7°C, humidity to EN16147. 3) Normal fan speed 60%, higher fan speed - special setting on 80%.
 * When connected as pressurised, use of safety valve is mandatory.

Aquarea Air Radiators

			PA	W-AAIR-2	200			PA	AW-AAIR-700 PAW-AAIR-900				700			
Total heating capacity	W	138	160	217	470	570	223	360	708	1.032	1.188	273	475	886	1.420	1.703
Water flow	kg/h	23,7	27,5	37,3	80,8	98,0	38,4	61,9	121,8	177,5	204,3	47,0	81,7	152,4	244,2	292,9
Water pressure drop	kPa	0,1	0,2	0,4	2,0	2,9	0,1	0,1	0,3	0,8	1,0	0,1	0,2	0,5	1,6	2,2
	m³/h	28	37	55	113	162	44	84	155	252	320	54	110	248	367	461
Air flow	Speed	Main Fan Off	Super Min	Min	Med	Max	Main Fan Off	Super Min	Min	Med	Max	Main Fan Off	Super Min	Min	Med	Max
Maximum input power	W	2	5	7	9	13	3	9	14	18	22	3	11	16	20	24
Sound pressure level	dB(A)	17,6	18,8	24,7	33,2	39,4	18,4	19,6	25,8	34,1	40,2	18,4	22,3	26,2	34,4	42,2
Inlet water temperature	°C	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Outlet water temperature	°C	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Inlet air temperature	°C	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
Outlet air temperature	°C	34,5	32,6	38,9	32,0	30,0	34,9	32,4	33,3	31,8	30,6	34,8	32,5	30,2	31,1	30,6
Dimensions (H x W x D)	mm		579	9 x 735 x 1	29			57	9 x 935 x 1	29			579	x 1.135 x	129	
Weight kg 17							20					23				
3 ways valve included			Yes			Yes			Yes							
Touch screen thermostat				Yes					Yes			Yes				

Tanks

	Stainless	Steel Tank		Enamelled Tank		Enamelled high	Enamelled 2 coils Tank (for bivalent Solar + HP)		
Model		WH-TD20E3E5	WH-TD30E3E5-1	PAW-TG20C1E3STD	PAW-TG30C1E3STD	PAW-TG40C1E3STD	PAW-TG20C1E3H	PAW-TG30C1E3H	PAW-TG30C2E3STD
Water volume	L	200	300	185	285	396	190	284	284
Maximum water temperature	°C	75	75	95	95	95	95	95	95
Dimensions Hight / Diameter	mm	1.150 / 580	1.600 / 580	1.507 / 580	1.565 / 680	1.888 / 760	1.648 / 680	1.417 / 760	1.417 / 760
Weight / filled with water	kg	49/-	65/-	97 / 282	140 / 425	171 / 567	115 / 305	128 / 412	134 / 418
Electric heater	kW	3	3	3	3	3	3	3	3
Power supply	V	230	230	230	230	230	230	230	230
Material inside tank		Stainless steel	Stainless steel	Enamelled	Enamelled	Enamelled	Enamelled	Enamelled	Enamelled
Exchange surface	m²	1,4	1,8	2,0	2,5	6,1	2,3	3,4	2,4 (for HP) +1,0 (for solar or boiler)
Energy loss at 65°C1	kWh/24h	1,9	2,3	1,6	2,1	1,7	1,4	1,6	1,6
3 Way valve included		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
20 m temperature sensor cable	e included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Heat up time	Valuation	****	****	****	****	****	****	****	****
Energy losses	Valuation	****	****	****	****	****	****	****	****
Energy Efficiency Class		C	C	C	C	В	В	B	В
Warranty		10 years	10 years	2 years	2 years	2 years	2 years	2 years	2 years
Maintenance required		No	No	Yearly	Yearly	Yearly	Yearly	Yearly	Yearly
1) I I.									

1) Insulated tested under EN12897. Includes proportional 3-way vale and control thermostat.

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

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.

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