

**Panasonic**

**AQUAREA  
EFFICIENT HEATING  
AND DOMESTIC  
HOT WATER**



NEW AQUAREA AIR TO WATER HEAT PUMP 2015 / 2016

- HIGH PERFORMANCE
- RELIABLE SOLUTION
- SILENT OUTDOOR UNITS
- EASY TO INSTALL



AQUAREA



## AQUAREA THE BEST SEASONAL EFFICIENCY

**Panasonic's new Aquarea air to water system can work in outdoor temperature even at -27°C**

Panasonic's new Aquarea system, based on high-efficiency heat pump technology, not only heats your home and hot water, but also cools your home in summer with incredible operating performance. This creates perfect comfort whatever the weather conditions, even at outdoor temperatures as low as -27°C. Panasonic new heat pumps are designed in response to the new demand for low consumption housing, with high efficiency and low running costs.



\* Not all products certified. As the certification process is on-going and the list of certified products constantly changing, please check for latest details on the official websites.

**Up to 80% energy savings\***

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 cost-effective alternative to a traditional fossil fuel boiler.

**Why air source heat pumps?**

- Reduced heating bills and maintenance costs
- Savings of up to Euro 1,000 a year are possible
- Reduce your carbon footprint
- Simple to integrate into most heating systems
- Energy efficient alternative to oil, LPG and electric systems
- Highly compatible with other energy efficient energy sources eg solar panels

**Air source heat pumps – Quick facts**

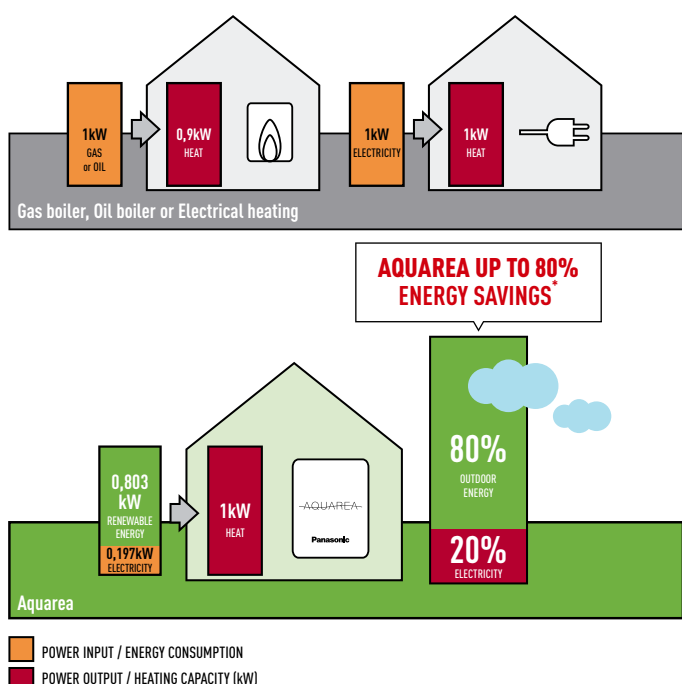
- Provides sustainable heating, cooling and hot water for your home
- 30%-40% reduction in annual energy bills
- Ideal for properties without access to mains gas
- Externally positioned saving valuable internal living space
- Proven technology from Panasonic and already well established in other EU countries

**"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 5.08. This is 4.08 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.

**Impressive Energy Savings**

Panasonic's Aquarea Heat Pump provides savings of up to 80% on heating expenses compared to electrical heaters.



\* Up to 80% of the heat produced by a heat pump is free, since it comes from the outdoor air. 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

"We expect to save around 1,000 € a year on fuel costs and we've been able to get rid of a large ugly oil tank in the garden thanks to the new Aquarea."  
 Aquarea Customer, Surrey<sup>1</sup>



1) Information provided by Aquarea customer, August 2012.



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

With more than 30 years of experience, selling to more than 120 countries, Panasonic is 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 worldwide.

**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. 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 for homes, medium-sized buildings such as offices and restaurants, and large-scale buildings. These offer maximum effectiveness, comply with the strictest environmental standards and meet the most avant-garde construction requirements of our time.

At Panasonic we know what a great responsibility it is to install heating and cooling systems. Because offering you the best solutions in heating and cooling matters



**Best Global Green Brand 2013**

We were recently awarded Interbrand's 4th Best Global Green Brand 2013 – the highest of any consumer electronics brands. This is the result of our commitment to energy efficient products, reduction in CO<sub>2</sub> emissions, kids school 'eco learning' programme and much more.

# PANASONIC OFFERS A LARGE RANGE OF SOLUTIONS HELPING TO MAKE THE HOME MORE EFFICIENT AND THE INSTALLATION CHEAPER AND EASIER

## There are several types of heat pump available:

- The Mono-Bloc system: This only has an outdoor unit. The installation doesn't require a refrigerated connection and is only connected to the heating and/or hot water.
- The Bi-Bloc system: The system, separate indoor and outdoor units, connects to the heating and/or hot water system.
- New All in One: Hydromodule + 200l tank. Panasonic has developed a highly efficient solution, easy to install.

A wide range from 3 to 16kW, Single and Three Phase, Mono-Bloc and Bi-Bloc. 3 Versions:

- Aquarea High Performance: From 3 to 16kW
- Aquarea T-CAP: From 9 to 16kW
- Aquarea HT: From 9 to 12kW



1b

Bi-Bloc option



1c

New All in One option



1a

1b

1c

### Aquarea air to water heat pumps

Panasonic has developed an extensive range of air-to-water heat pumps designed to efficiently convert free air into sustainable heating and hot water. Fitted externally to your home and designed to operate in all year round weather conditions (-27°C), it's the smart alternative to oil, LPG and electric heating systems.



2

### Aquarea Heat Pump Manager (Optional)

This new generation of smart controllers for eco-efficient heating, features our versatile stand-alone controller not only for our heat pump systems, but also your gas, oil boiler and all other devices installed on your heating system.



3

### Heating control App for smartphone, tablet or computer (Optional)

The heating control App allows you to control the heating and hot water system via your smart phone, tablet or computer with ease, whether at home or away.

The heat pump can be also connected to house management system using KNX, Modbus or Zig Bee interfaces.



Modbus®



Control your world



4

### Super High Efficiency tanks (Optional)

- High efficient tank solution: specially designed to improve the efficiency of the sanitary hot water production.
- HI lineup:
- Low energy losses
- High exchange surface for high efficiency and short time to heat up the water.



5

### Aquarea Air. High efficient radiators for heating and cooling (Optional)

- High efficient radiators working with water at 35°C.
  - No need for two kits if both floor heating and radiators are required.
  - As the product is efficient, it opens the possibility to also provide cooling while still meeting construction requirements.
- Panasonic offers a cooling mode within its heat pump range for low consumption homes.



6

### Heat Pump + HIT Photovoltaic solar panel (Optional)

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<sub>2</sub> 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.

### 3 Aquarea solutions



#### 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.

1) For WH-MDC05F3E5.



#### Aquarea T-CAP. From 9 to 16kW

If the most important aspect is to maintain nominal heating capacities even at temperatures as low as -7°C or -15°C, select the Aquarea T-CAP. This ensures that there is always enough capacity to heat the house without help from an external boiler – even at extremely low temperatures.

Aquarea T-CAP always has high efficiency and high heating capacity even at extremely low temperatures. With Aquarea T-CAP, you can always enjoy high savings.



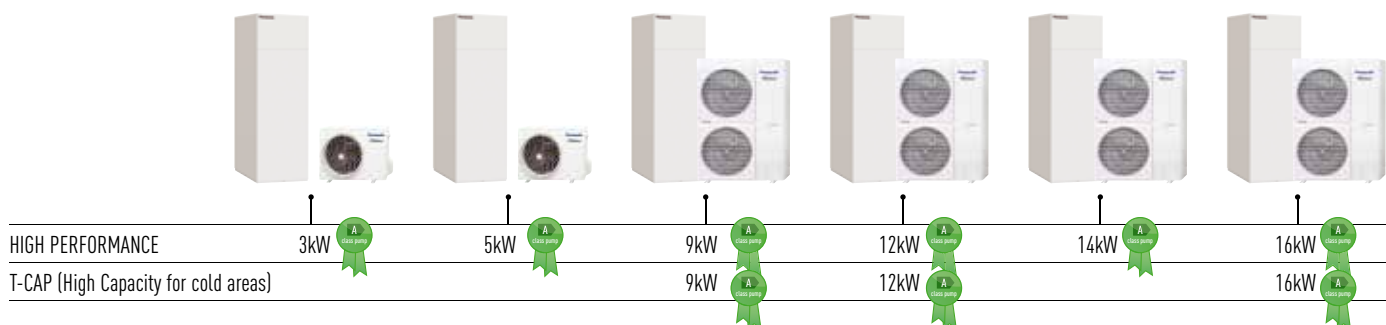
#### Aquarea HT. From 9 to 12kW

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 can work in output water temperatures of 65°C even at outdoor temperatures as low as -20°C.

Aquarea HT is able to deliver hot water to 65°C with the Heat Pump alone.

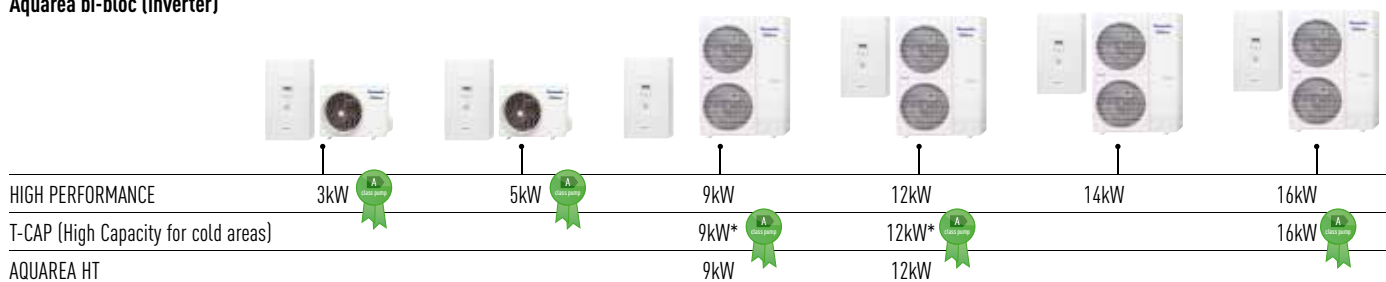
### Aquarea range: 3 line ups to fit to your requests

#### Aquarea all in one bi-bloc (inverter)<sup>1</sup>

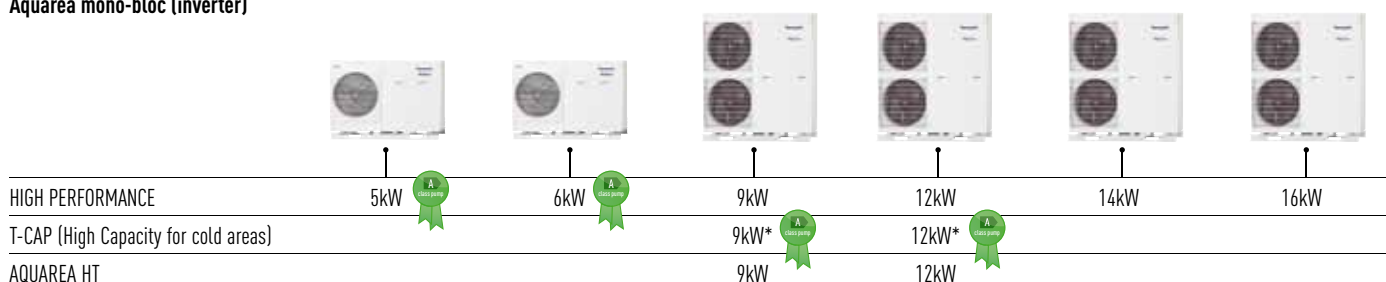


1. Available end 2014

#### Aquarea bi-bloc (inverter)



#### Aquarea mono-bloc (inverter)



\* Three phase



**5,08 COP**  
high efficiency

**AQUAREA**  
HIGH PERFORMANCE

## NEW HIGH PERFORMANCE HEAT PUMPS FOR LOW CONSUMPTION HOMES FROM 3 TO 16 KW

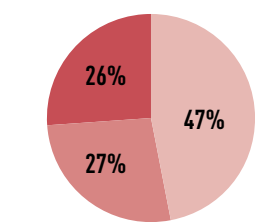


**Maximum savings, maximum efficiency, minimum CO<sub>2</sub> emissions, minimum of space.**

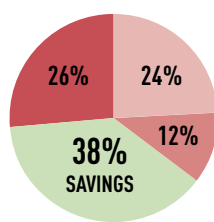
Panasonic has designed the new Aquarea Bi-Bloc and Mono-Bloc heat pumps for homes which have high performance requirements. Whatever the weather, Aquarea can work even at -27 °C! The New Aquarea is easy to install on new or existing installations, in all types of properties. New High Performance helps you to meet strict building requirements and reduce building costs

### Total energy consumption of a conventional house, compared to the energy consumption with Panasonic heat pumps

TOTAL ENERGY CONSUMPTION OF A CONVENTIONAL HOUSE<sup>1</sup>



ENERGY CONSUMPTION WITH PANASONIC HEAT PUMPS<sup>2</sup>

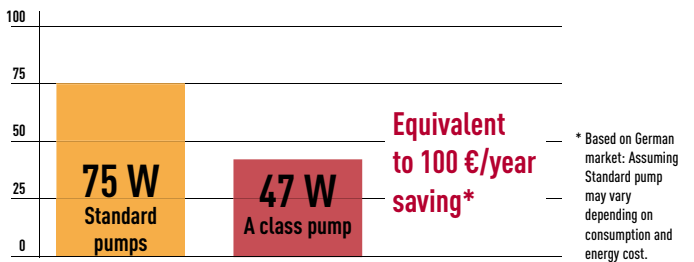


1. Source: IDEA, European values 2010. Consumption of a conventional house of 80 kWh/(m<sup>2</sup>.year).  
2. Source: Panasonic, RT2012 simulation, house of 50 kWh/(m<sup>2</sup>.year) per year, equipped by Panasonic heat pump. 3. Eg. Fridge telephone, oven,...

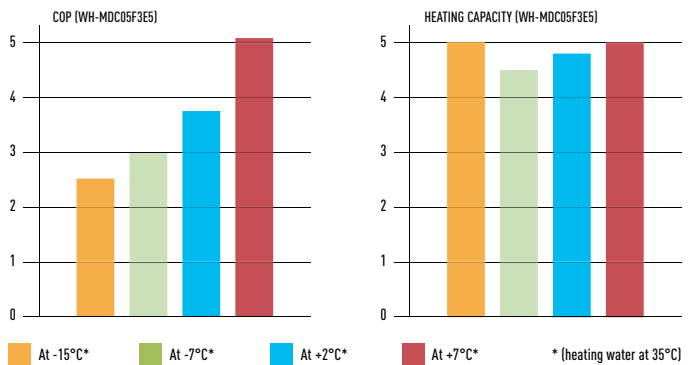
### A new A-class Pump with Constant water flow (Dynamic pump control) for 5kW Mono-Bloc

A Class pump adapts water pressure according to demand, reducing energy consumption, noise on the valves, and makes installation easy.

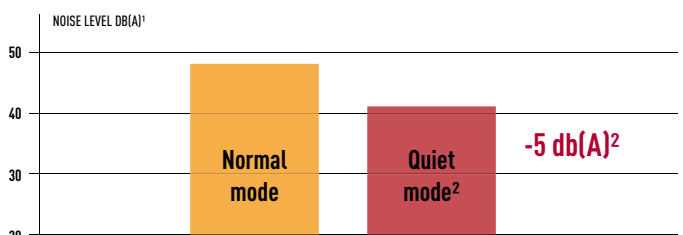
### Comparison of energy consumption - Standard pumps vs A class pump



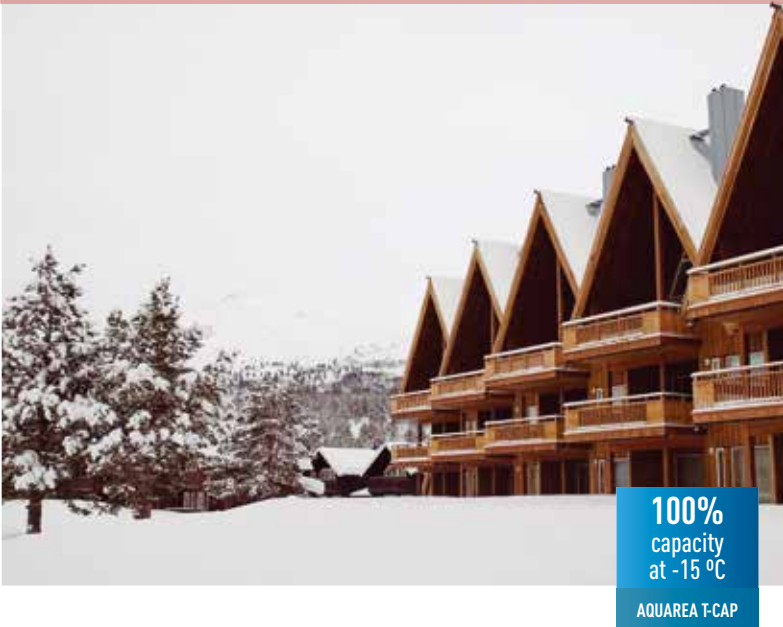
### The new Panasonic High Connectivity house extremely high performance even at low temperature



### 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 (heating water at 35°C) for two fans outdoor units. For one fan outdoor units, night mode reduction is 3dB(A).



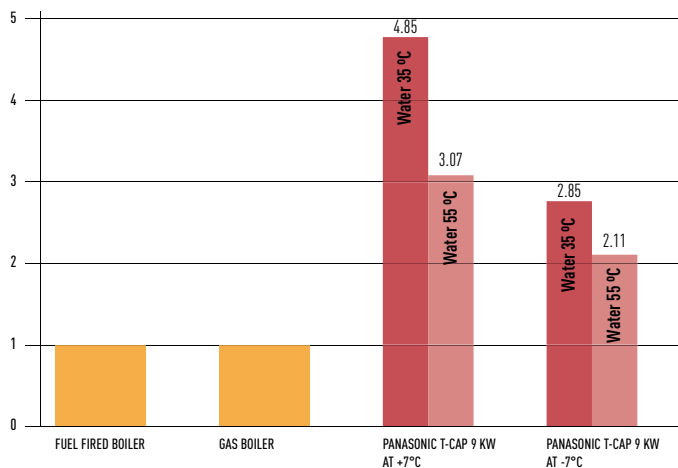
## NEW T-CAP FOR EXTREMELY LOW TEMPERATURES AREAS FROM 9 TO 16 KW



The whole T-CAP line-up is design for extremely cold areas in applications with under floor heating, low temperature radiators or even fan-coil heaters. This range 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.

- T-CAP stands for Total Capacity. This line-up is able to maintain the same nominal capacity even at -15°C without the help of an electrical booster heater.
- High heating capacity even at low ambient temperatures.
- Maintains capacity of 16 kW until -15°C outdoor temperature. Adding many new functions: Auto mode, Holiday mode, power consumption display.

**Best efficiency compared to other heating Efficiency systems**  
Panasonic heat pumps have a maximum COP of 4.85 at + 7 °C which makes them much more efficient than fossil fuel fired boilers, gas boilers and electrical heaters.

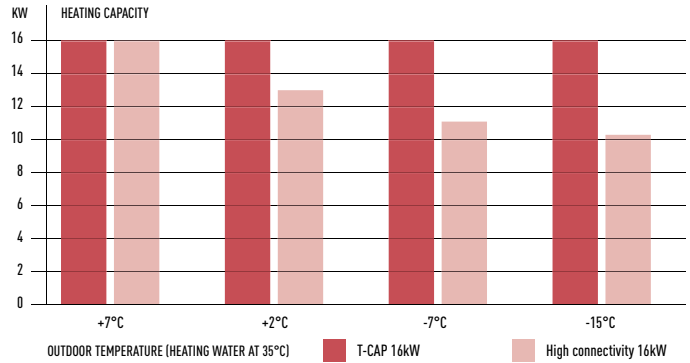


### Aquarea T-CAP maintains the nominal capacity until -15°C

The T-CAP line-up is able to maintain the same nominal capacity even at -15°C without the help of an electrical booster heater. T-CAP is also able to provide extremely high efficiencies, whatever the outside or the water temperature. Panasonic has now extended the range with the new three phase 16kW.

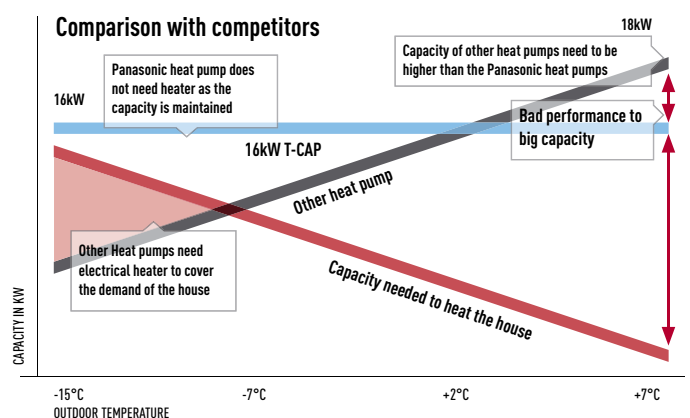
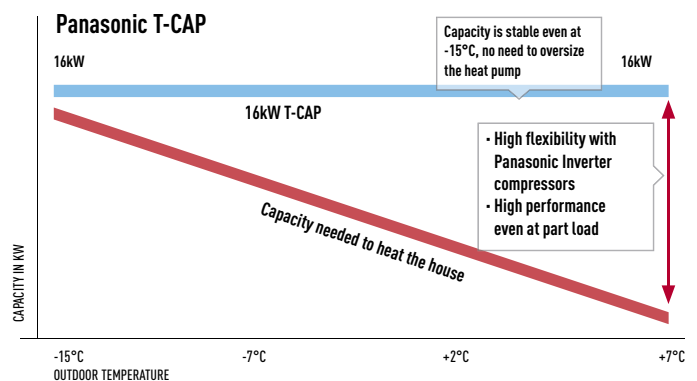
- Backup heater capacity can be selected (3/6/9kW)
- Cooling mode activation possible by software\*

\* This activation can only be done by service partner or installer



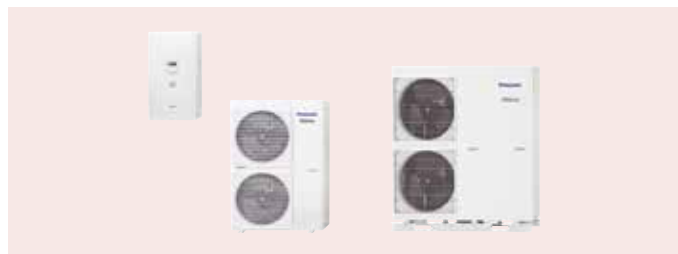
**With a Panasonic heat pump, there is no need to oversize the heat pump to reach the required capacity at low temperatures.**

- 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 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 in outdoor temperatures as low as -27°C and guarantee the capacity without backup heating down to -15°C
- Panasonic heat pumps are very quiet and have a night mode program for even lower noise. See noise calculator on [www.panasonicproclub.com](http://www.panasonicproclub.com)



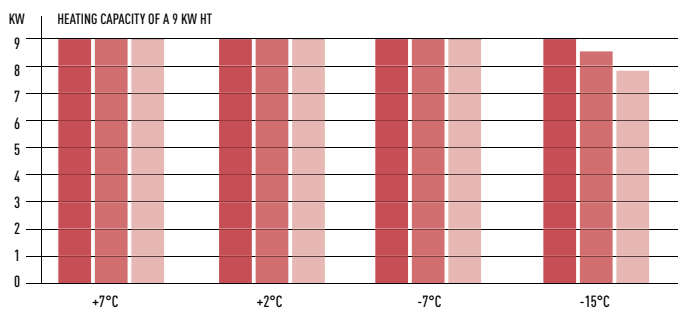


## NEW AQUAREA HT IDEAL FOR RETROFIT: GREEN ENERGY SOURCE WORKS WITH EXISTING RADIATORS. FOR 9 AND 12 KW

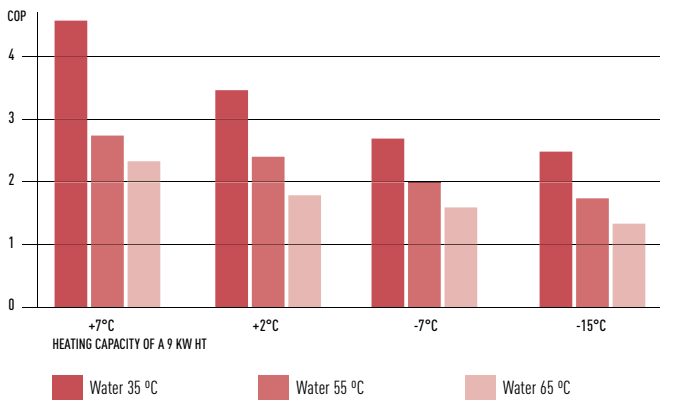


Replace a traditional heating source (such as oil or gas) with Aquarea HT, but keep existing old style radiators for minimum disruption to the home. From 9 to 12kW. For a house with traditional high-temperature radiators (such as cast iron radiators), the Aquarea HT Solution is the most appropriate as the Aquarea HT provides output water temperatures of 65°C even at outdoor temperatures as low as -23°C.

### Panasonic Aquarea HT is super efficient even at low temperature.



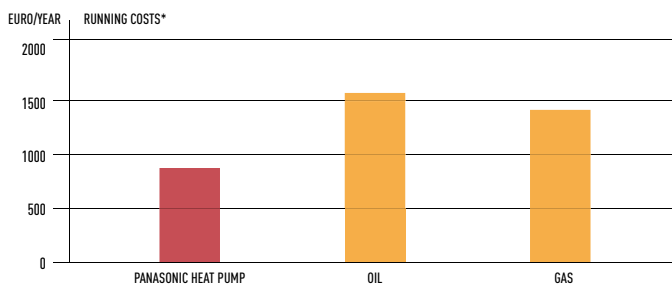
### HIGH COP (Coefficient of Performance) During all year and always better than Gas or Oil burning



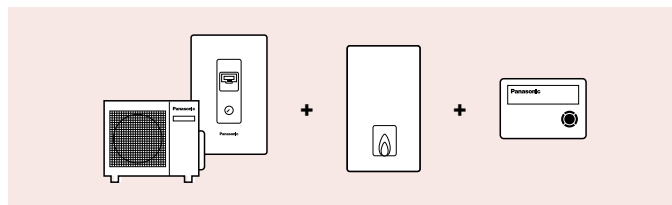
### Aquarea HT: High savings and low CO<sub>2</sub>

The results of replacing traditional heating systems with Aquarea HT are clear: lowest running cost and lowest CO<sub>2</sub> emissions. Panasonic heat pumps are much more efficient than gas boilers and help you to reach your house energy targets easier.

### Yearly savings with Aquarea HT



\* For a 170 m<sup>2</sup> house and 40 W/m<sup>2</sup> energy losses in central Europe Conditions, outside minimum conditions -10°C.



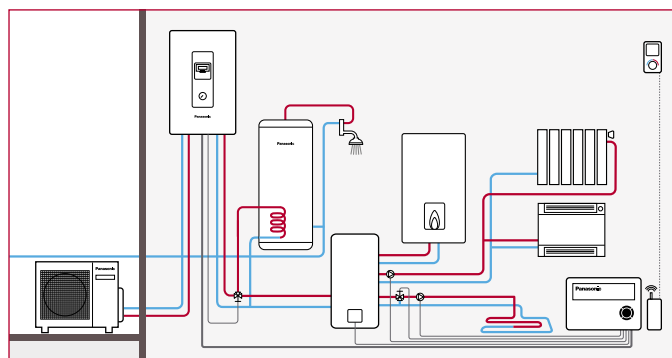
### Smart Bivalent operation

Thanks to Aquarea HPM (Heat Pump Manager), it is possible to combine different heat sources and use the most appropriate source, depending on user's preferences. This smart control will decide which is the best source to use anytime.



Thus, if it is necessary to combine gas heater, oil with heat pump, Aquarea HPM is simply the best solution.

### Heat Pump + Boiler Management with DHW with PAW-HPM12ZONLCD-U







NEW ALL IN ONE  
COMPACT AND  
EASY TO INSTALL

## NEW ALL IN ONE. NICE DESIGN, EASY TO INSTALL, HIGH PERFORMANCES. FROM 3 TO 16 KW.

### New All in One hydromodule + 200l tank

Easy to instal highly efficient solution, it save more than half installation time, thanks to the fitted at the factory piping and electric connexion between the hidrokit and the tank.

All in One is a also a space saving solution, perfect to install in the kitchen due to its stylish design. Furthermore, Panasonic has developed a range of controllers which allows the control of 2 heating zones, bivalent and cascade systems.

1. Highly efficient solution
2. Easy installation
3. A class pump
4. 200l Tank included
5. Easy integration of the HPM remote control

### High efficiency solution

The best of Panasonic:

- Best stainless steel tank with high insulation to reduce energy losses
- High exchange surface to increase efficiency
- Best performing Aquarea hydraulic module to heat the water.

### Connectivity Possibilities

3 Remote controls can be installed:

- New Remote control. New function for customer:
  - Auto Mode for Heating and Cooling mode
  - How to show Energy Consumption
  - How to set Holiday Mode
- Heat pump Manager for more then 600 installations possible (as 2 zone control, Bivalent, etc.)
- Heat pump Manager with touch screen LCD.

**Line up:** 3, 5, 7, 9kW with 12, 14, 16 kW Single Phase and 9, 12, 14, 16kW Three Phase.



10 YEARS  
WARRANTY OF  
THE STAINLESS  
STEEL TANK

\* Preliminary design. Significant changes may occur.



INCREASE BY 120%  
THE USAGE OF FREE  
ELECTRICITY\*

## SOLAR PHOTOVOLTAIC PANELS + HPM



+



### Heat and produce Domestic Hot Water for free

Panasonic has developed an innovative algorithm for its HPM (Heat Pump Manager) which drastically improves the Heat Pump's use of self-generated electricity from connected Photovoltaic panels. The Heat Pump will take the electricity generation by the solar system into consideration for the heating system and the domestic hot water production, without reducing comfort in the house.

The HPM (Heat Pump Manager) activates the heat pump based on:

- Energy produced by the photovoltaic system.
- The consumption requirement of the house, eg if a washing machine is working, the heat pump will not draw electricity from the photovoltaic system to avoid net increases on overall energy consumption and hence maximise efficiency.
- Heating demand of the house (in case of high electricity production, the house can be overheated by 1 or 2 degrees, or reduced by 1 or 2 degrees if low production of electricity).

As the production of domestic hot water is linked to the level of electricity generated by the solar system, if this was too low, the heat pump would start a normal process to maintain maximum comfort in the house for a given set time (defined by the user).

### Key points

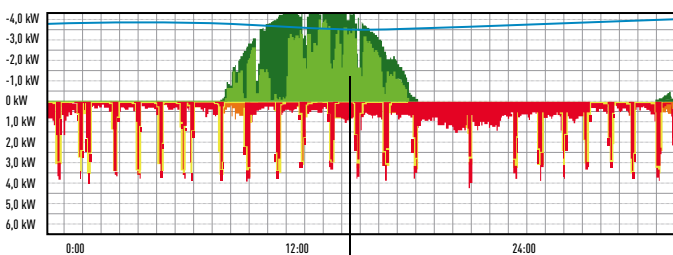
- Increases the amount of self-consumed electricity from the solar system up to 120%.
- Control the heat pump's energy consumption according to the output of electricity from the PV considering the electric energy consumption requirement of the house.
- Innovative algorithm balancing the consumption of the heat pump and the comfort in the house based on the outside temperature and the energy demand of the building.
- Easy configuration of the Heat Pump manager system with the PV system.

\*Results of simulations for new housing (see next page)

## Standard combination PV+HP. Why the Panasonic HPM can increase by 120% the performance of the combination PV+HP

Typical Electricity consumption and production profile WITHOUT Panasonic HPM

Temperature in the house : 21 °C +/- 2 °C

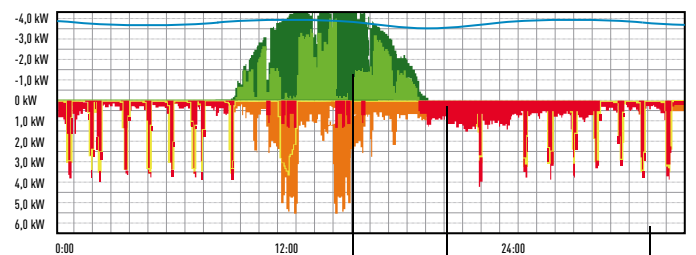


- Total electricity used in the house and by the HP
- PV production used in the house and by the HP
- PV production send to the grid
- Electricity used by the HP

No optimization of the consumption of the HP, production and consumption only match on 13%

Typical Electricity consumption and production profile optimize by the Panasonic HPM

Temperature in the house : 21 °C +/- 2 °C



By forcing the HP to run when there is production. The Panasonic HPM increases the consumption of free electricity coming from the PV by 56%

The HP does not have to work when there is high demand of electricity during the evening for example

The house temperature is maintained, to ensure comfort. A variation of 1 to 2 degrees can be programmed in order to increase the performance of the system



## NEW REMOTE CONTROL

For 2014, 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
- How to Lock Cool Mode
- Class A Pump management with 7 speeds

### New function for end user

- Auto Mode for Heating and Cooling mode
- Show Energy Consumption
- Set Holiday Mode

Floor heating concrete dry mode: Allows slow increase in temperature of floor heating via software.  
 Heating and Cooling Mode: Authorized service partner or Authorized 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.



## AQUAREA AIR RADIATORS

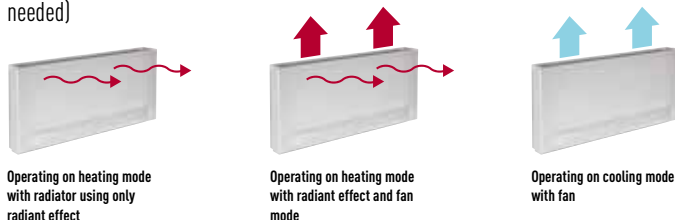
The slimline Panasonic Aquarea Air radiators deliver high efficiency climate control. With a depth of just under 13 cm they are at the cutting edge of the market. Blending easily into the home, Aquarea Air's elegant design and product refinements are clear to see in every detail.

Panasonic has developed a new radiator line up working with water at 35°C in order to:

- Make the installation easier, with 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](http://www.panasonicproclub.com)

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

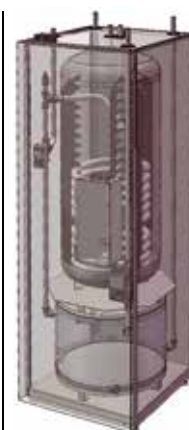


## AQUAREA TANK



### Aquarea Tank. Tanks and buffer tank in one!

Tanks and buffer tank in one!		Standard Sanitary
Model		PAW-TD20B8E3-NDS
Water volume	L	185 (for DHW tank) / 80 (for buffer tank)
Maximum water temperature	°C	100
Dimension	H x W x D	mm 1.810 x 600 x 632
Weight	kg	150
Electric heater	kW	3
Power supply	V	230 - 2p
Material inside tank		Stainless steel
Exchange surface	m <sup>2</sup>	2,3
Energy loss at 65°C <sup>1</sup>	kWh/24h	1,3
A class pump	Number of speed	Stepless (800-4250 rpm)
	Pressure drop (Min / Max)	kPa 5 / 6
	Input power (Min / Max)	W 3 / 45
3 Way valve included		Yes
Safety thermostat with contact for failure part of E-Heating		Yes
Location of the electrical heater		Mid
Electrical backup heater on the buffer tank		Optional



# AQUAREA RANGE



AQUAREA ALL IN ONE HIGH PERFORMANCE BI-BLOC SINGLE PHASE HEATING AND COOLING						
Indoor unit		Single Phase (Power to indoor)		Three Phase (Power to indoor)		
Outdoor unit		WH-ADC0309G3E5		WH-ADC0916G9E8		
Outdoor unit		WH-UD03EE5	WH-UD05EE5	WH-UD09FE8	WH-UD12FE8	WH-UD16FE8
Heating capacity at +7°C	kW	3,20	5,00	9,00	12,00	16,00
COP at +7°C (heating water at 35°C)		5,00	4,63	4,85	4,75	4,28
Heating capacity at +2°C	kW	3,20	4,20	9,00	11,40	13,00
COP at +2°C (heating water at 35°C)		3,56	3,11	3,59	3,45	3,29
Heating capacity at -7°C	kW	3,20	4,20	9,00	10,00	11,40
COP at -7°C		2,69	2,59	2,85	2,74	2,68
Heating capacity at -15°C	kW	3,20	4,20	8,3	8,90	10,30
COP at -15°C (heating water at 35°C)		2,30	2,16	2,59	2,46	2,35
Cooling capacity at 35°C	kW	3,20	4,50	7,00	10,00	12,20
EER at 35°C (cooling water at 7 / 12°C)		3,08	2,69	3,17	2,81	2,57
Dimensions (Indoor) H x W x D	mm	1.827x600x720		1.827x600x720	1.827x600x720	
Dimensions (Outdoor) H x W x D	mm / kg	622 x 824 x 298 / 39			1.340 x 900 x 320 / 106	
Sound pressure level	dB(A)	47		49	50	53
Operation range	Outdoor ambient °C	-23 to 35		-23 to 35	-23 to 35	-23 to 35



AQUAREA ALL IN ONE T-CAP BI-BLOC THREE PHASE HEATING AND COOLING				
Indoor unit		Three Phase (Power to indoor)		
Outdoor unit		WH-ADC0916G9E8	WH-ADC0916G9E8	
Outdoor unit		WH-UX09FE8	WH-UX12FE8	
Outdoor unit		WH-UX16FE8	WH-UX16FE8	
Heating capacity at +7°C	kW	9,00	12,00	16,00
COP at +7°C (heating water at 35°C)		4,85	4,75	4,28
Heating capacity at +2°C	kW	9,00	12,00	16,00
COP at +2°C (heating water at 35°C)		3,59	3,44	3,10
Heating capacity at -7°C	kW	9,00	12,00	16,00
COP at -7°C		2,85	2,72	2,49
Heating capacity at -15°C	kW	9,00	12,00	16,00
COP at -15°C (heating water at 35°C)		2,56	2,42	2,32
Cooling capacity at 35°C	kW	7,00	10,00	12,20
EER at 35°C (cooling water at 7/12°C)		3,17	2,81	2,57
Dimensions (Indoor) H x W x D	mm	1.827 x 600 x 720		1.827 x 600 x 720
Dimensions (Outdoor) H x W x D	mm / kg	1.340 x 900 x 320 / 110		1.340 x 900 x 320 / 110
Sound pressure level	dB(A)	49		50
Operation range	Outdoor ambient °C	-27 to 35		-27 to 35



AQUAREA HIGH PERFORMANCE BI-BLOC SINGLE PHASE HEATING ONLY - SDF HEATING AND COOLING - SDC 3 AND 5kW					
Indoor unit		Single Phase Heating Only		Single Phase Heating and Cooling	
Outdoor unit		WH-SDF03E3E5	WH-SDF05E3E5	WH-SDC03E3E5	WH-SDC05E3E5
Outdoor unit		WH-UD03EE5	WH-UD05EE5	WH-UD03EE5	WH-UD05EE5
Heating capacity at +7°C	kW	3,20	5,00	3,20	5,00
COP at +7°C (heating water at 35°C)		5,00	4,63	5,00	4,63
Heating capacity at +2°C	kW	3,20	4,20	3,20	4,20
COP at +2°C (heating water at 35°C)		3,56	3,11	3,56	3,11
Heating capacity at -7°C	kW	3,20	4,20	3,20	4,20
COP at -7°C		2,69	2,59	2,69	2,59
Heating capacity at -15°C	kW	3,20	4,20	3,20	4,20
COP at -15°C (heating water at 35°C)		2,30	2,16	2,30	2,16
Cooling capacity at 35°C	kW	-	-	3,20	4,50
EER at 35°C (cooling water at 7/12°C)		-	-	3,08	2,69
Dimensions (Indoor) H x W x D	mm / kg	892 x 502 x 353 / 43		892 x 502 x 353 / 44	892 x 502 x 353 / 44
Dimensions (Outdoor) H x W x D	mm / kg	622 x 824 x 298 / 39		622 x 824 x 298 / 39	622 x 824 x 298 / 39
Sound pressure level	dB(A)	47		47	48
Operation range	Outdoor ambient °C	-23 to 35		-23 to 35	-23 to 35



AQUAREA T-CAP BI-BLOC THREE PHASE HEATING AND COOLING - SXC					
Kit		Single Phase (Power to indoor)		Three Phase (Power to indoor)	
		KIT-WXC09F3E5	KIT-WXC12F6E5	KIT-WXC09F3E8	KIT-WXC12F9E8
<b>Indoor unit</b>		WH-SXC09F3E5	WH-SXC12F6E5	WH-SXC09F3E8	WH-SXC12F9E8
<b>Outdoor unit</b>		WH-UX09FE5	WH-UX12FE5	WH-UX09FE8	WH-UX12FE8
Heating capacity at +7°C	kW	9,00	12,00	9,00	12,00
COP at +7°C (heating water at 35°C)		4,84	4,74	4,84	4,28
Heating capacity at +2°C	kW	9,00	12,00	9,00	12,00
COP at +2°C (heating water at 35°C)		3,59	3,44	3,59	3,10
Heating capacity at -7°C	kW	9,00	12,00	9,00	12,00
COP at -7°C (heating water at 35°C)		2,85	2,72	2,85	2,49
Heating capacity at -15°C	kW	9,00	12,00	9,00	12,00
COP at -15°C (heating water at 35°C)		2,56	2,42	2,56	2,32
Cooling capacity at 35°C	kW	7,00	10,00	7,00	10,00
EER at 35°C (cooling water at 7°C)		3,17	2,81	3,17	2,57
Dimensions (Indoor) 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 / 52
Dimensions (Outdoor) 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 / 109	1.340 x 900 x 320 / 110
Sound pressure level	dB(A)	49	50	49	53
Operation range	Outdoor ambient °C	-27 to 35	-27 to 35	-27 to 35	-27 to 35




AQUAREA HT BI-BLOC THREE PHASE HEATING ONLY - SHF					
Kit		Single Phase (Power to indoor)		Three Phase (Power to indoor)	
		KIT-WHF09F3E5	KIT-WHF12F6E5	KIT-WHF09F3E8	KIT-WHF12F9E8
<b>Indoor unit</b>		WH-SHF09F3E5	WH-SHF12F6E5	WH-SHF09F3E8	WH-SHF12F9E8
<b>Outdoor unit</b>		WH-UH09FE5	WH-UH12FE5	WH-UH09FE8	WH-UH12FE8
Heating capacity at +7°C	kW	9,00	12,00	9,00	12,00
COP at +7°C (heating water at 35°C)		4,64	4,46	4,64	4,46
Heating capacity at +2°C	kW	9,00	12,00	9,00	12,00
COP at +2°C (heating water at 35°C)		3,45	3,26	3,45	3,26
Heating capacity at -7°C	kW	9,00	12,00	9,00	12,00
COP at -7°C (heating water at 35°C)		2,74	2,52	2,74	2,52
Heating capacity at +7°C	kW	9,00	12,00	9,00	12,00
COP at +7°C (heating water at 65°C)		2,25	2,20	2,25	2,20
Heating capacity at +2°C	kW	9,00	10,30	9,00	10,30
COP at +2°C (heating water at 65°C)		1,88	1,83	1,88	1,83
Heating capacity at -7°C	kW	8,90	9,60	8,90	9,60
COP at -7°C (heating water at 65°C)		1,64	1,61	1,64	1,61
Heating capacity at -15°C	kW	9,00	12,00	9,00	12,00
COP at -15°C (heating water at 35°C)		2,43	2,17	2,43	2,17
Dimensions (Indoor) H x W x D	mm / kg	892 x 502 x 353 / 47	892 x 502 x 353 / 48	892 x 502 x 353 / 47	892 x 502 x 353 / 48
Dimensions (Outdoor) H x W x D	mm / kg	1.340 x 900 x 320 / 110	1.340 x 900 x 320 / 110	1.340 x 900 x 320 / 110	1.340 x 900 x 320 / 110
Sound pressure level	dB(A)	49	50	49	50
Operation range	Outdoor ambient °C	-27 to 35	-27 to 35	-27 to 35	-27 to 35

## AQUAREA RANGE











AQUAREA HIGH PERFORMANCE MONO-BLOC SINGLE PHASE HEATING ONLY - MDF HEATING AND COOLING - MDC							
		Single Phase Heating Only WH-MDF06E3E5		Single Phase Heating and Cooling WH-MDC05F3E5		WH-MDC06E3E5	
Heating capacity at +7°C	kW	6,00		5,00		6,00	
COP at +7°C (heating water at 35°C)		4,48		5,08		4,48	
Heating capacity at +2°C	kW	5,00		4,80		5,00	
COP at +2°C (heating water at 35°C)		3,45		3,75		3,45	
Heating capacity at -7°C	kW	5,15		4,50		5,15	
COP at -7°C (heating water at 35°C)		2,68		2,98		2,68	
Heating capacity at -15°C	kW	5,90		5,00		5,90	
COP at -15°C (heating water at 35°C)		2,22		2,56		2,22	
Cooling capacity at 35°C	kW	-		4,50		5,50	
EER at 35°C (cooling water at 7°C) <sup>1</sup>		-		3,33		2,74	
Sound pressure level	dB(A)	47		47		47	
Dimensions	H x W x D	mm	865 x 1283 x 320	865 x 1.283 x 320		865 x 1.283 x 320	
Weight		kg	112	107		112	
Pump	No. of Speed		Variable Speed	7		Variable Speed	
	Input power	W		Min: 21 W at 10l/min / Max: 135 W at 53.8l/min			
Operation range	Outdoor ambient	°C	-27 to 35	-27 to 35		-27 to 35	


# FAN COILS

Fan Coils for Heat Pump application		PAW-AAIR-200					PAW-AAIR-700					PAW-AAIR-900						
		PAW-AAIR-200L					PAW-AAIR-700L					PAW-AAIR-900L						
	Without radiant heating	W	138	160	217	470	570	223	360	708	1.032	1.188	273	475	886	1.420	1.703	
	Total heating capacity	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 flow	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	
	Water pressure drop	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
	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) / Weight	mm / kg	735 x 576 x 129 / 17					935 x 579 x 129 / 20					1.135 x 579 x 129 / 23					
	3 ways valve included / Touch screen thermostat		Yes / Yes					Yes / Yes					Yes / Yes					

# TANKS

Tanks	Stainless Steel Tank		Enamelled Tank		Enamelled high efficiency Tank			Enamelled 2 coils Tank (for bivalent Solar + HP)		
Model	WH-TD20E3E5	WH-TD30E3E5-1*	PAW-TE20E3STD*	PAW-TE30E3STD*	PAW-TE20E3HI*	PAW-TE30E3HI*	PAW-TE50E3HI*	PAW-TE30C2E3STD*		
Panasonic has a large line up of tanks with high efficiency and high insulation allowing in certain cases to install the tank in an unheated part of the house (as garage, cellar, etc...) without affecting the efficiency of the house. High efficiency water tanks with a large exchange surface and high levels of insulation to minimise energy losses.										
Water volume	L	200	300	190	290	200	288	440	287	
Maximum water temp.	°C	75	75	95	95	95	95	95	95	
Dimensions	High	mm	1.150	1.600	1.432	1.794	1.804	1.294	1.921	1.294
	Diameter	mm	580	580	540	600	600	700	700	700
Weight	kg	49	65	65	85	78	139	222	145	
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	
3 Way valve included		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
20m temp. sensor cable included		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Maintenance required		No	No	Yearly	Yearly	Yearly	Yearly	Yearly	Yearly	
Heat up time	Valuation	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	
Energy losses	Valuation	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	
Efficiency of the tank	Valuation	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	

\* Available from March 2014.

Tanks and buffer tank in one!	Standard Sanitary	
Model	PAW-TD20B8E3-NDS	
		
Water volume	185l (for DHW tank) / 80l (for buffer tank)	
Maximum water temperature	100 °C	
Dimension	H x W x D	
Weight	150 kg	
Electric heater	3 kW	
Power supply	230 V - 2p	
Material inside tank	Stainless steel	
Exchange surface	2,3 m²	
Energy loss at 65°C	1,3 kWh/24h	
A class pump	Number of speed	Stepless (800-4250 rpm)
	Pressure drop (Min / Max)	5 kPa / 6 kPa
	Input power (Min / Max)	3 W / 45 W
3 Way valve included	Yes	
Safety thermostat	Yes	
Location of the electrical heater	Mid	
Electrical backup on the buffer tank	Optional	

# ACCESSORIES



CZ-NS1P // CZ-NS3P // CZ-NS2P



CZ-TK1



PAW-TS1 / PAW-TS2



CZ-NE1P

## Solar Kit Accessories

CZ-NS1P	PCB for solar connection kit for split systems
CZ-NS2P	PCB for solar connection kit for Mono-Bloc systems
CZ-NS3P	PCB for solar connection kit for Mono-Bloc systems 6 & 9 kW

## Sanitary Tank Accessories

CZ-TK1	Temperature sensor kit for third party tank (with copper pocket and 6 m length sensor cable)
PAW-TS1	Tank sensor with 6 meter cable length
PAW-TS2	Tank sensor with 6 meter cable length

## Deice Accessories

CZ-NE1P	Base pan heater (for all old Bi-bloc and Mono-bloc, not for the 3 and 5 kW)
CZ-NE2P	Base pan heater (for 3 kW and 5 kW)
CZ-NE3P	Base pan heater (for all new F generation products: F3, F6, F9)

## Connectivity Solutions

Model name	Interface
PAW-AW-KNX-1i	KNX Interface
PAW-ZIG-A2W	Interface to connect to Zig Bee
PAW-AW-MBS-1	Modbus Interface
PAW-AW-WIFI-1	Interface for IntesisHome for Aquarea Models
PAW-AW-WIFI-1TE	Wired room temperature sensor (only for PAW-AW-WIFI-1A)



PAW-HPM1



PAW-HPM2

## Aquarea Manager Kits

PAW-HPM12ZONE-U	HPM with roomsensor and setpoint adaption for Bi-Bloc + sensors
PAW-HPM12ZONE-M	HPM with roomsensor and setpoint adaption for Mono-Bloc + sensors (for all Mono-blocs, including F generator)
PAW-HPM12ZONELCD-U	HPM with LCD Wireless Room Thermostat for Bi-Bloc + sensors
PAW-HPM12ZONELCD-M	HPM with LCD Wireless Room Thermostat for Mono-Bloc + sensors (for all Mono-blocs, including F generator)
PAW-HPM12ZONE-F	HPM with roomsensor and setpoint adaption for Bi-Bloc F type + sensor
PAW-HPM12ZONELCD-F	HPM with LCD Wireless Room Thermostat for Bi-Bloc F type + sensor



PAW-HPMED

## Aquarea Manager Accessories

PAW-HPM1	Aquarea Manager with LCD
PAW-HPM2	Aquarea Manager without LCD
PAW-HPMINT-U	Interface to connect Aquarea Manager to Heat pump Aquarea Bi-bloc (HPM can control all parametres from HP)
PAW-HPMINT-M	Interface to connect Aquarea Manager to Heat pump Aquarea Mono-bloc (HPM can control all parametres from HP)
PAW-HPMINT-F	Interface to connect Aquarea Manager to Heat pump Aquarea Mono-bloc and Bi-bloc F type (HPM can control all parametres from HP)
PAW-HPMB1	Buffer tank sensor
PAW-HPMDHW	Buffer tank sensor with well
PAW-HPMSOL1	Buffer tank sensor solar (with higher temperature range)
PAW-HPMAH1	Water flow pipe sensor for heating circuit
PAW-HPMR4	Room sensor + set point adaption
PAW-HPMED	Touch screen
PAW-HPMLCD*	Room thermostat with LCD
PAW-LANCABLE	Network cable
PAW-A2WSWITCH	Network switch
PAW-HPM-CASE	HPM casing with Premounted cables <b>NEW!</b>
PAW-DEWPOINTSENSOR	Dew point sensor
PAW-HPMUH	Outdoor temperature sensor

## Hydraulic Accessories

PAW-2PMP2ZONE	2 zone kit, hydraulic switch, manifold, 2 A-class pumps, 1 mixture valve and check valve + filter
PAW-FILTER	2 check valves + filter with 1"
PAW-FILTER-ONLY	Filter with 1"

\* Not fixed yet



PAW-A2W-RTWIRED



PAW-A2W-RTWIRELESS

## Room Thermostats

PAW-A2W-RTWIRED	Wired LCD room thermostat with weekly timer
PAW-A2W-RTWIRELESS	Wireless LCD room thermostat with weekly timer

## Accessories For All In One 2014

PAW-FP-WMP-1	Flexible pipings and wall mounting plate for all in one (Available from October 2014)
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