



# NEW

- Integrated air/waterheat pump
- Energy efficiency class A++
- Most saved energy per invested Euro



**5 yrs**  
Compressor  
Warranty

**AWH V5+ 9 kW, 11 kW, 13 kW and 20 kW**  
Economic and effective air-to-water heat pump for the Nordic climate

- Automatic start in case of a power failure
- Heat pump operates in conditions of up to  $-25^{\circ}\text{C}$
- Adjustable speed compressor from Panasonic
- Reasonable price and short payback period
- Nano-coated evaporator
- Dockable solution



Developed in Sweden  
Designed for the world



V5+ air-to-water heat pumps. Economic, comfortable and environment-friendly.

# Now four versions with different power output – 9kW, 11kW, 13 kW and 20 kW

**Save on your heating costs by adding the heat pump to your existing heating system. Do not throw away your old boiler save it as a peak demand backup reserve of a modernised system.**

AWH has been designed for connecting to the existing heating devices; if necessary, the heater will support the heat pump. The design of the indoor unit is stylish and compact, which makes it easy to install to limited space.

The indoor unit is equipped with a circulation pump, heat exchanger and heat pump control system.

## For Nordic climate

The split system with complete winter equipment means that the heat exchange process with the building's heating system takes place indoors and only the refrigerant circulates outdoors.

This is an effective and reliable solution in our Nordic climate.

Thanks to the inverter control, the heat pump automatically switches to optimal power to satisfy your heating demand, given the outdoor temperature.

## Top quality defrost – nano-coated outdoor unit

Large volume of air circulates the outdoor unit, which is used in collecting energy; therefore ice forms on the outdoor unit's heat exchanger. The ES defrost programme has been designed to melt the ice only when necessary and only for the necessary period of time. The surface of the outdoor unit's heat exchanger has been coated with nanoparticles to prevent ice formation and increase effectiveness.

*If the capacity is correct, the ES air-to-water heat pump system will considerably reduce the fuel consumption of the previous heating device (oil, electricity, wood, gas or pellets).*

## Complete heat control

The V5+ series has a build-in control system with variable water temperature based on the outdoor temperature. The colder the outdoor temperature is, the higher the temperature is in the heating system. This function increases the efficiency, since the heat pump doesn't produce warmer water than needed in order to keep the indoor temperature.

## The heat pump consists of three parts:

1. Outdoor unit, which houses the Panasonic high-quality compressor.
2. Indoor unit, which houses the heat exchanger, heat pump control device and circulation pump.
3. Refrigerant tubes, which connect the indoor and outdoor unit. Under normal circumstances the heat pump capacity should be enough to provide half of the necessary heat on the coldest days.

The dockable solution means that the heat pump can be connected to the other heating device, which is capable of fulfilling the heat demand alone.

If the heat pump is capable of fulfilling half of the heat demand on the coldest days, then it is usually capable of fulfilling 80–90% of the heat demand on every day of the year.

Model		AWH9-V5+	AWH11-V5+	AWH13-V5+	AWH20V5+	
Max. Heating Capacity (1)	kW	10,10	11,5	12,6	20,2	
Max. Cooling Capacity(3)	kW	6,84	9,2	10,3	12,6	
Max. Heating Capacity(2)	kW	9,53	10,7	11,5	19,06	
C.O.P Min./Max.(1)	W/W	4.02 / 4.65	3.82/5.05	3.89/4.77	4.02/4.65	
Energy Class		A++	A++	A++	A++	
SCOP - Average climate low temperature	W/W	3,99	3,92	3,9	3,73	
Heating Power Input Min./Max.(1)	W	975/2153	915/3029	926/3072	1950/4300	
Heating power input Min./Max.(2)	W	1230/ 2990	1218/3624	1267/3723	2460/5980	
Defrost upon demand		Yes	Yes	Yes	Yes	
Heating cable for defrosting		Yes	Yes	Yes	Yes	
Compressor pre-heat		Yes	Yes	Yes	Yes	
Electronic expansion valve		Yes	Yes	Yes	Yes	
A-class circulation pump		Yes	Yes	Yes	Yes	
Compressor Type-Quantity/System		Panasonic Twin Rotary /1			Panasonic Twin Rotary /2	
Fan	Quantity	1	1	2	2	
	Airflow	m3/h	3000	3100	4200	6000
	Rated power	W	76	76	150	150
Noise Level	Indoor/ Outdoor	dB (A)	43/62	45/65	46/65	35/66
Heat Exchanger	Type		Plate Heat Exchanger	Plate Heat Exchanger	Plate Heat Exchanger	Plate Heat Exchanger
	Water Pressure Drop	kPa	23	23	26	35
	Piping Connection	Inch	3/8" ~ 1/2"	3/8" ~ 1/2"	3/8" ~ 5/8"	3/8" ~ 1/2"
Allowable Water Flow	Min. /Rated./ Max.	L/S	0.26 / 0.43 / 0.51	0.31 / 0.52 / 0.62	0.37 / 0.61 / 0.73	0.48 / 0.79 / 0.95
Dimension (LxDxH)	Outdoor Unit	mm	934x354x753	1044x414x763	1124x460x1195	920x412x1440
	Indoor Unit	mm	380x256.7x580			530x275x835
Net Weight	Outdoor Unit	Kg	62,5	75	113	100
	Indoor Unit	Kg	23			39
Outdoor Temp. range	Heating	°C	-25~45			
	Cooling	°C	0~55			
Inlet water temp. range		°C	10~50			
Residual current device and overvoltage protection			Required			
Power supply, grounded	V/Hz/A		230 V, 50 Hz, 16 A	230 V, 50 Hz, 16 A	230 V, 50 Hz, 16 A	230 V, 50 Hz, 16 A x 2
Article number package			130075	130076	130077	130078
Article number indoor/outdoor			120208/120209	120208/120210	120211/120212	120213/120214

(1) Heating condition: water inlet/outlet temperature: 30 °C/35°C, Ambient temperature: DB 7 °C/WB 6 °C

(2) Heating condition: water inlet/outlet temperature: 40°C/45°C, Ambient temperature: DB 7 °C/WB 6 °C

(3) Cooling condition: water inlet/outlet temperature: 23°C/18 °C, Ambient temperature: DB 35 °C/WB24 °C

