



AQUA Plus – SWAN-2

Product presentation

AQUA Plus: Heat Pump for DHW



AQUA Plus (SWAN-2 series) is the evolution of high efficiency Domestic Hot Water Heat Pump.

The unit is in **A+ energy class**, reaching the top of efficiency in the market, allowing for **great savings** in terms of energy and operating costs, increasing the use of **renewable energy** compared to a traditional water heater.

AQUA Plus has a wide **flexibility** in terms of installation, control and available versions, thanks to several configurations and accessories.

The possibility of integrating the unit with **thermal or photovoltaic solar panels** allows for a solution with complete renewable energy, which can produce hot water at very low costs.

AQUA Plus: Product range

AQUA Plus (SWAN-2 series) is available in sizes **190** and **300**, both with or without coil for **thermal solar panels connection**



190



190S

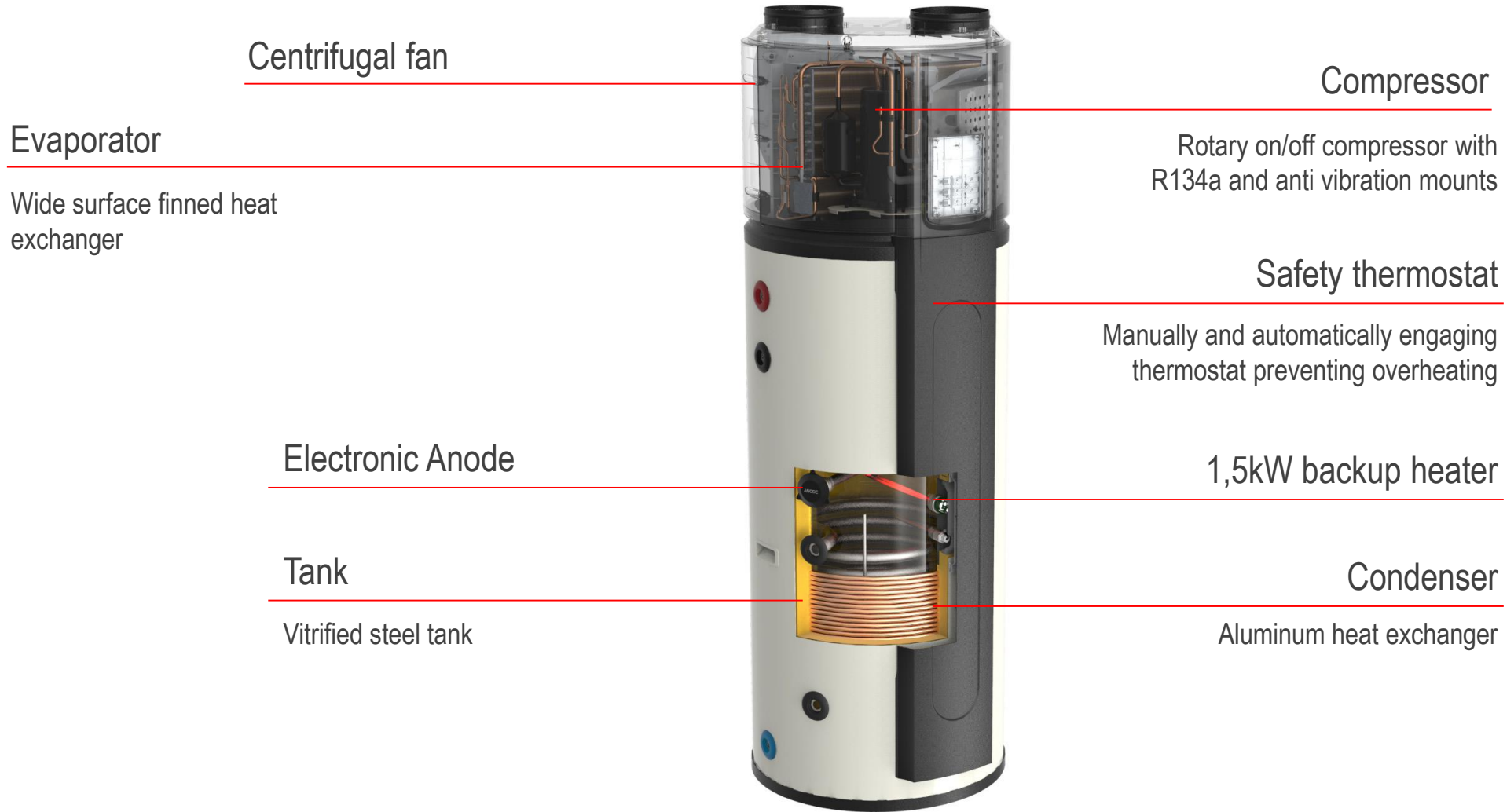


300



300S

AQUA Plus: Components



AQUA Plus: Technical features

Size			190	300	190S	300S
Tank volume		lt	176	284	168	272
Capacity	(1)	kW	1,62	2,30	1,62	2,30
COP	(1)		3,86	4,34	3,86	4,34
Capacity	(2)	kW	2,31	3,25	2,31	3,25
COP	(2)		4,23	5,18	4,23	5,18
Backup heater		kW	1,5	1,5	1,5	1,5
Energy Class			A+	A+	A+	A+
Profile			L	XL	L	XL
Average Climate	COP EN16147		2,76	3,01	2,76	3,01
	η_{wh}		115%	123%	115%	123%
Ref Gas			R134a	R134a	R134a	R134a
GWP / Charge		t / kg	1430 / 1,1	1431 / 1,4	1430 / 1,1	1431 / 1,4

1) Outdoor T 15°C DB, inlet water T 15°C, tank T 45°C

2) Outdoor T 43°C DB, inlet water T 10°C, tank T 70°C (190) 65°C (300)



AQUA Plus: Technical features

User interface

The user interface is mounted on board. It is designed to be user friendly and intuitive, with all parameters accessible with 9 keys.

Operating the user interface it is possible to display:

- Tank water temperature
- Unit operating state
- Compressor and backup heater operating state
- Anomalies

It is also possible to:

- Set the tank water temperature
- Schedule up to 6 timers
- Activate the backup heater
- Activate disinfect (anti-legionella) mode
- Turn on/off the unit



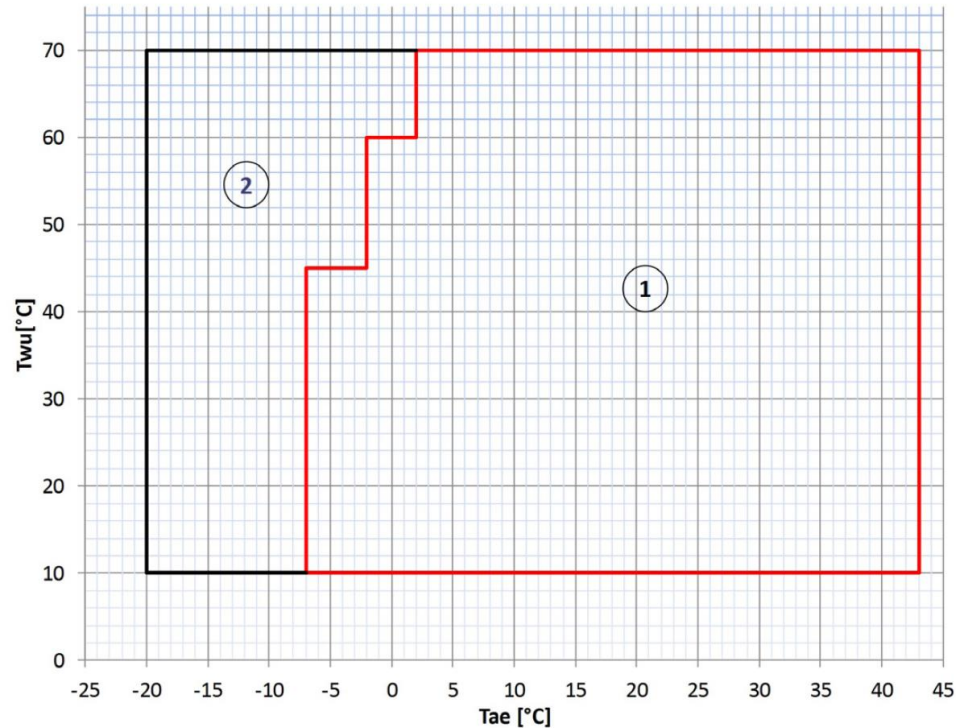
AQUA Plus: Technical features

Operating field

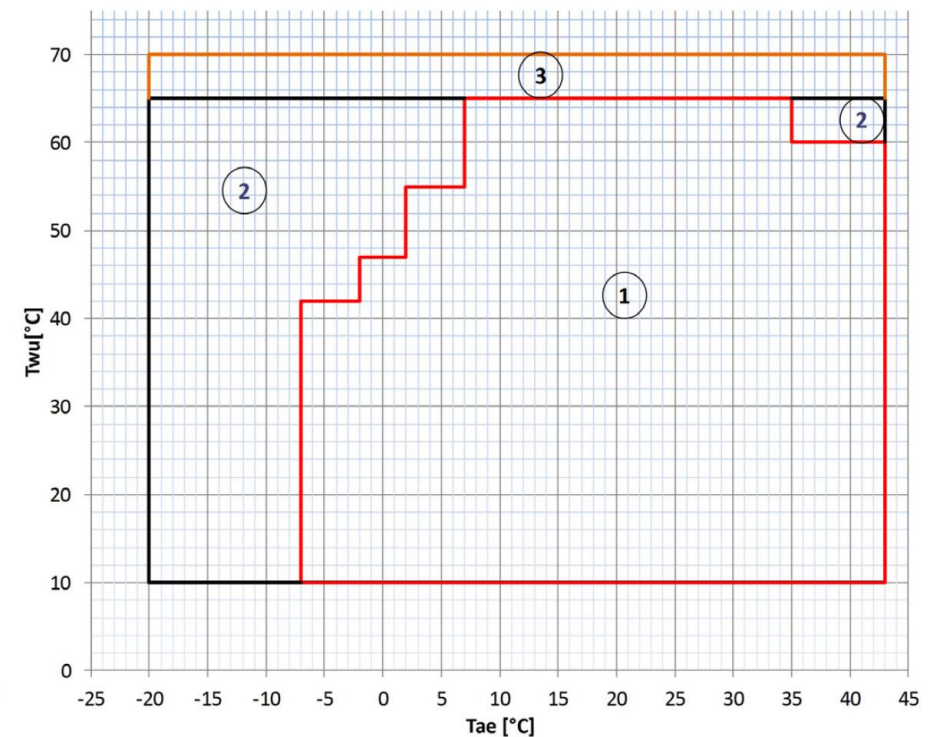
Thanks to a **wide operating field**, AQUA Plus allows production of hot water all year long, down to **-20°C** of outdoor temperature.

Twu = Tank temperature (°C)
Tae = Outdoor temperature (°C)

- 1) Heat pump operating range
- 2) Backup heater operating range
- 3) Backup heater operating range only for anti-legionella



190 – 190S



300 – 300S

AQUA Plus: Technical features

Dimensions and weight



Size	Net weight (kg)
190	111
190S	129
300	134
300S	152

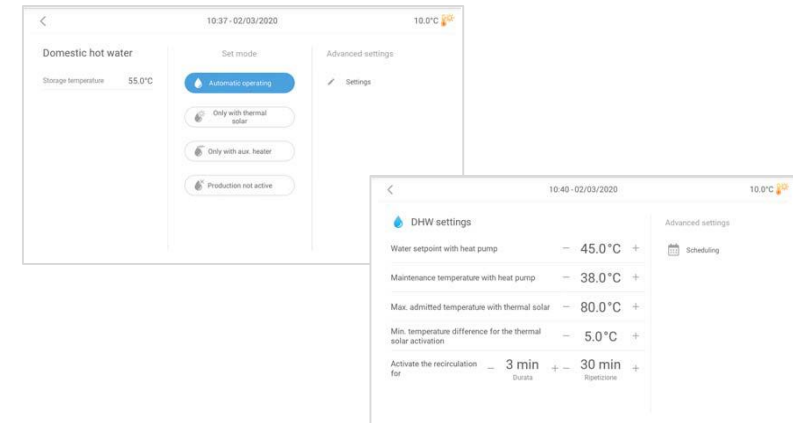
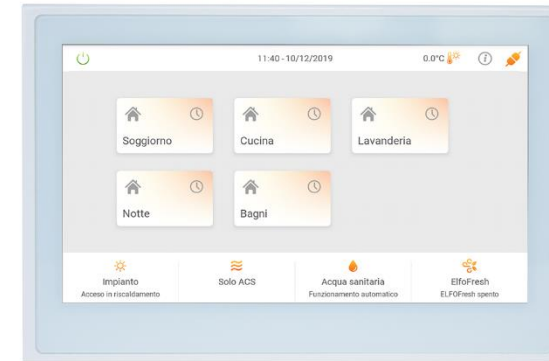
AQUA Plus: Technical features

ELFOControl³ EVO

AQUA Plus is compatible with Clivet residential management system **ELFOControl³ EVO**, which allows to integrate all Clivet product to achieve complete control and higher system efficiency.

Through ELFOControl, it is possible to monitor and set the main parameters of the units:

- Display of tank temperature, operating mode, setpoint
- Turn on/off the unit
- Weekly scheduler
- Activate recirculation
- Activate disinfect
- Compatible with **ClivetEye**



AQUA Plus: Technical features

Control options

The unit also presents advanced control options:

- Serial connection RS485 for **Modbus** systems
- Contact for **Photovoltaic** panels
- **Smart Grid** contact



Certifications

AQUA Plus is certified at the most recognized certification bodies:

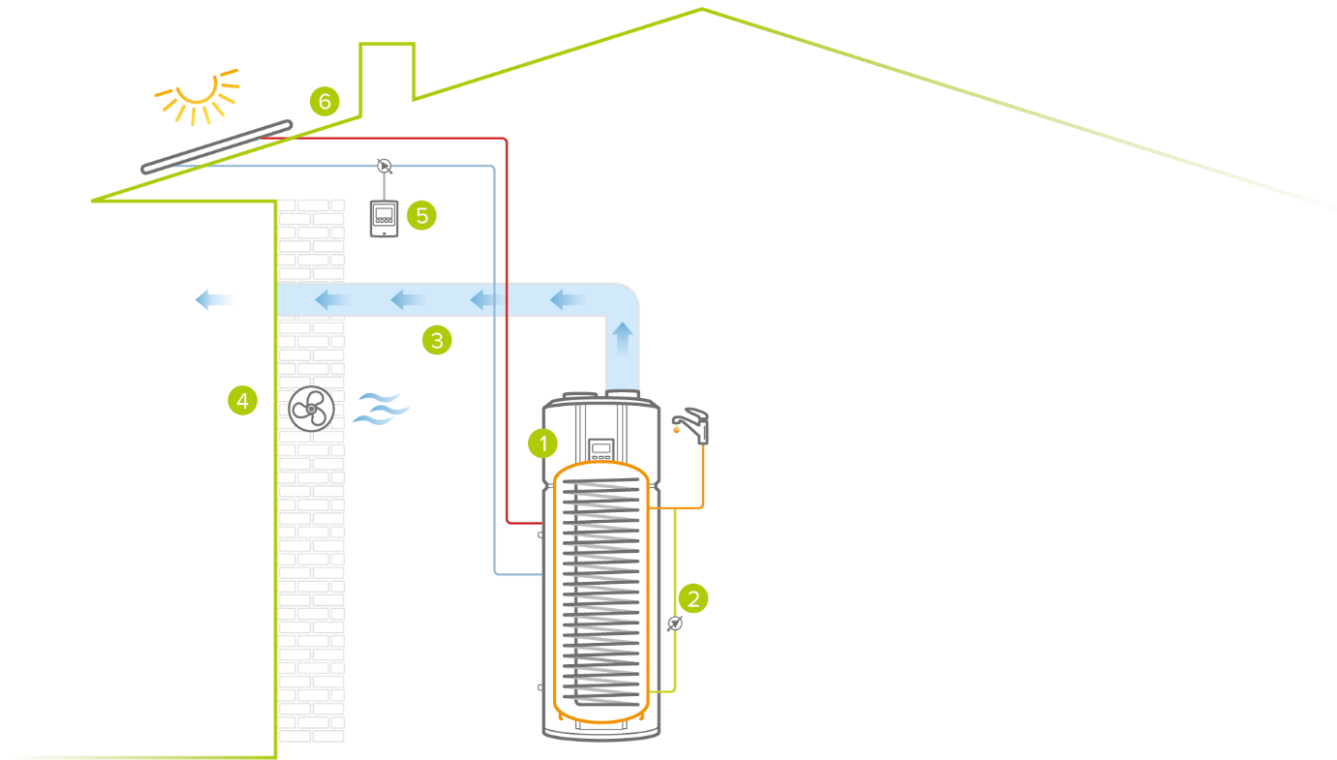
- Eurovent
- HP Keymark
- SG Ready



AQUA Plus: Thermal solar panels

AQUA Plus is available in solar version for connection of ELFOSun or third party supplied thermal solar panels.

The unit can receive an input from the solar system, **increasing the water setpoint** to exploit the solar energy and the possibility to **control an external solar pump**.

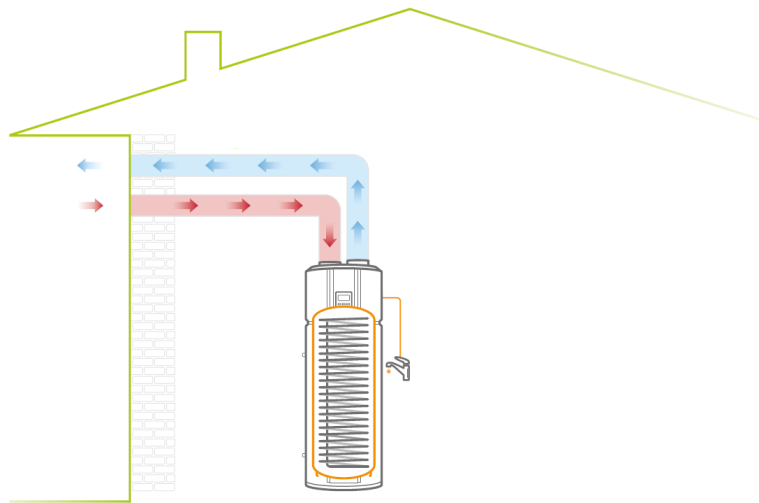


- 1) AQUA Plus solar version
- 2) DHW recirculation pump*
- 3) Exhaust air duct (optional)
- 4) Safety ventilation system*
- 5) Solar circulation kit (optional)
- 6) ELFOSun thermal solar system (optional)

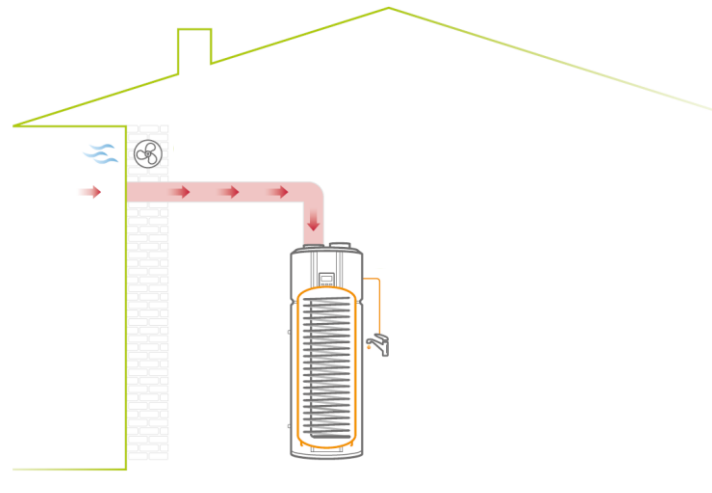
*third party supply

AQUA Plus: Flexible installation

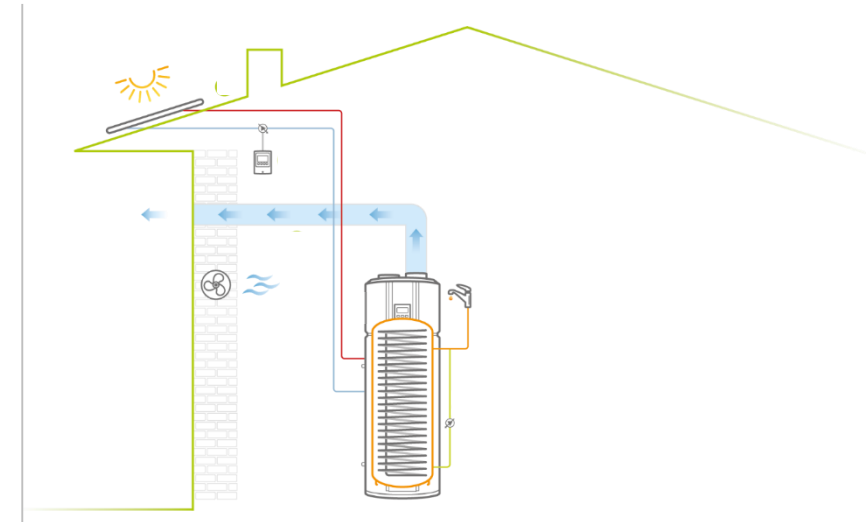
AQUA Plus can be installed connecting both air intake and output ducts to the outside. Alternatively, **one of the two air connections** can be left **exchanging with the installation room environment***:



Ducted air intake and output



Only air intake ducted



Only air output ducted

* The customer is responsible to verify the correct ventilation of the installation area (install a mechanical ventilation system if necessary)

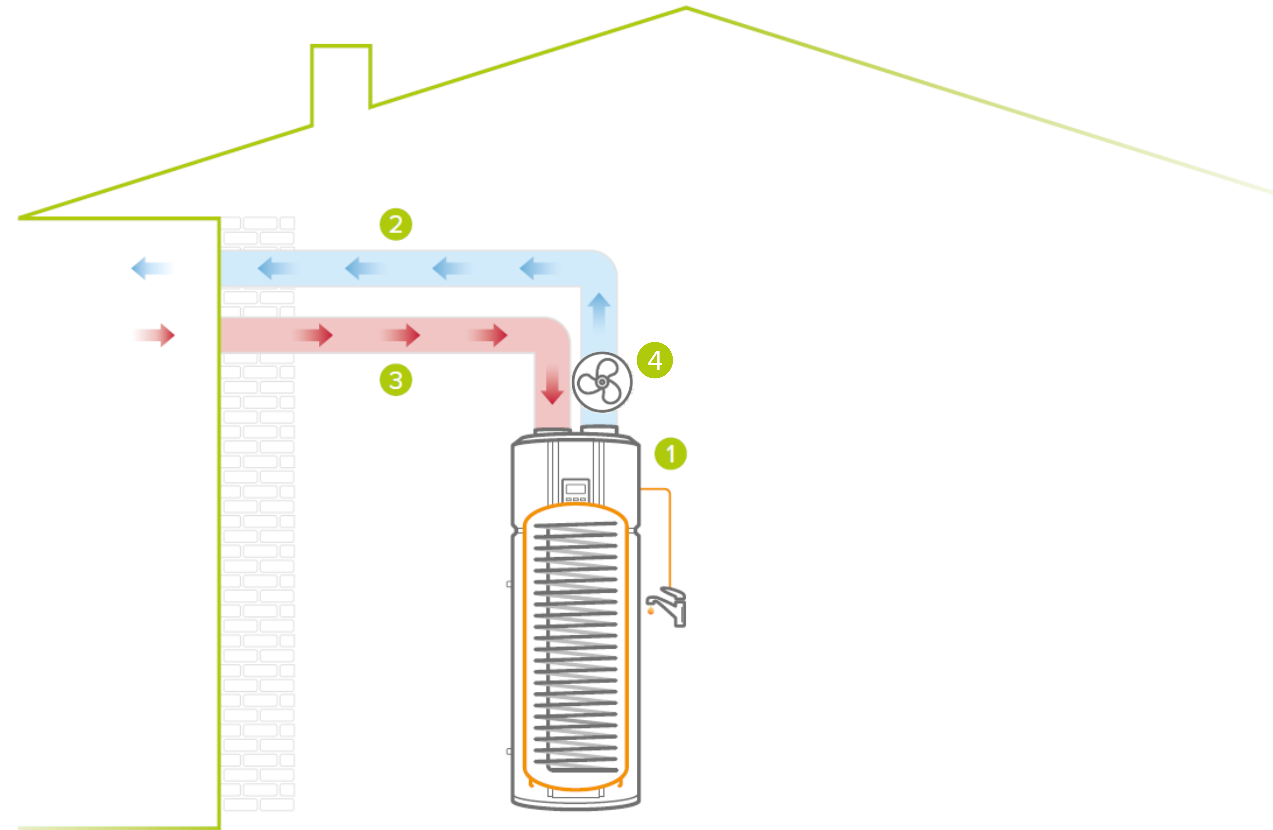
AQUA Plus: Flexible installation

External fan accessory

When the unit is installed far away from the perimeter walls of the house, it might be necessary to create **long air ducts** and **several curves**, which account for **high pressure drops**.

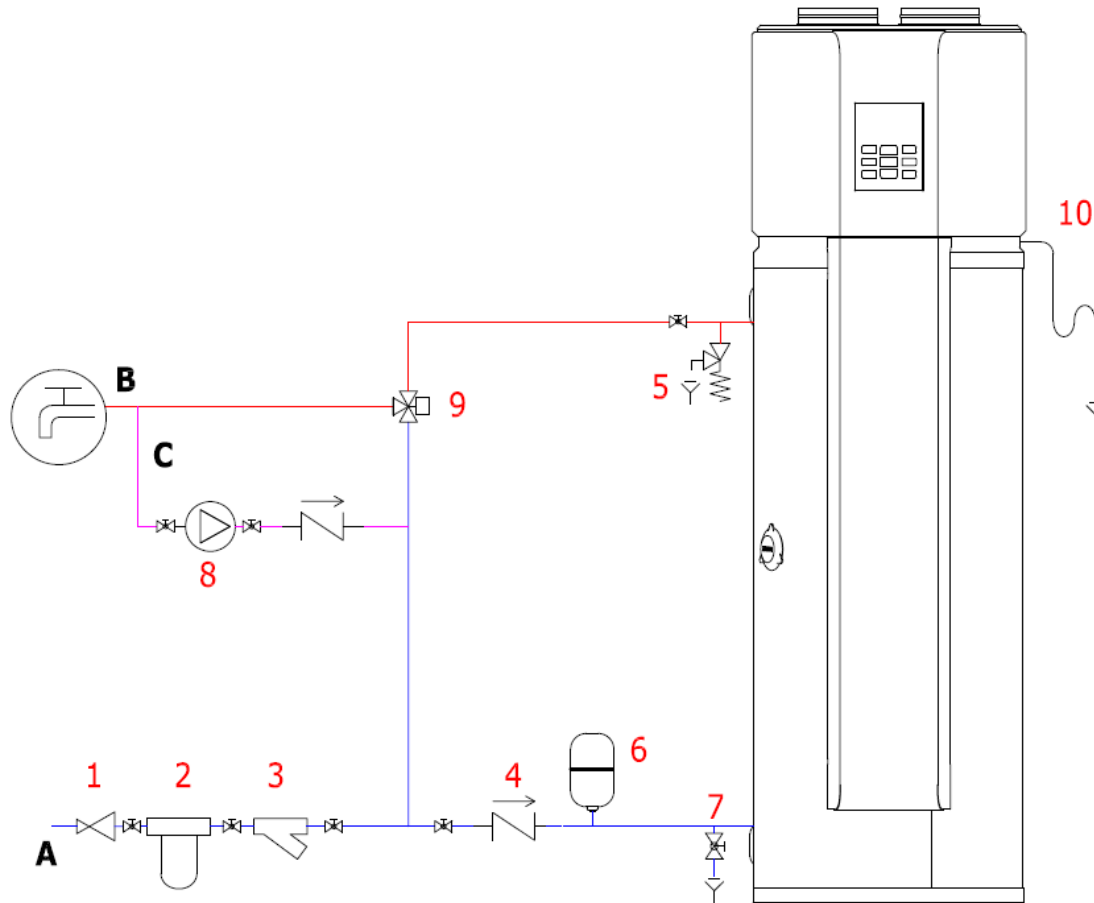
In order to face these type of applications, AQUA Plus introduces a **new accessory external fan**, which extends the available static pressure up to **200Pa** for size 190 and **240Pa** for size 300.

- 1) AQUA Plus
- 2) Exhaust air duct
- 3) Inlet air duct
- 4) External fan accessory



AQUA Plus: System drawings

AQUA Plus

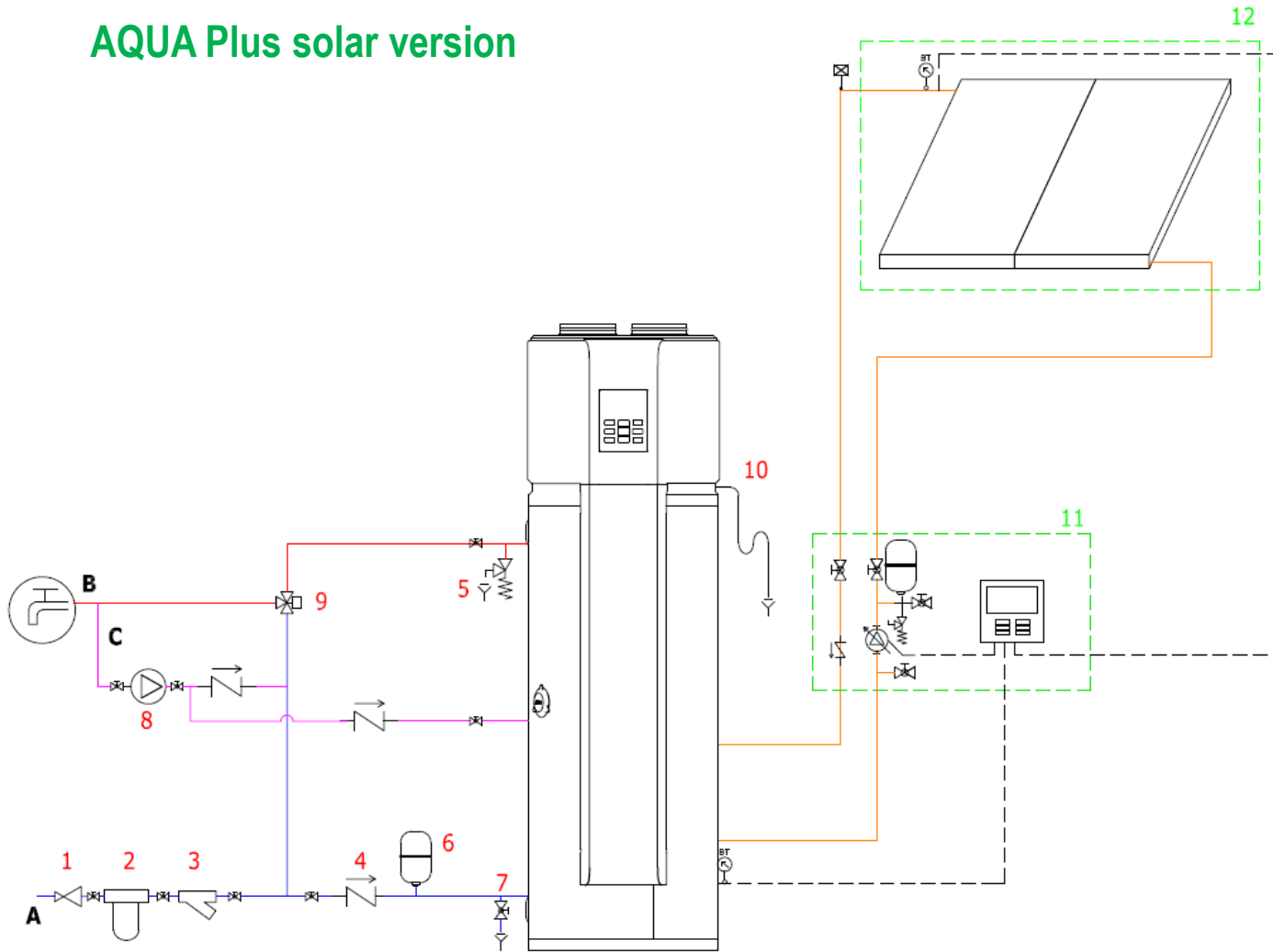


1. Pressure reducer
2. Water treatment devices (water softener, etc.)
3. Y strainer
4. Not return valve
5. Hot water safety valve with discharge
6. Hot water expansion tank
7. Accumulator discharge
8. Hot water circulator (recirculation) with not return valve
9. Thermostatic mixer valve
10. Condensation discharge

A Water supply inlet
B Domestic hot water
C Domestic hot water recirculation

AQUA Plus: System drawings

AQUA Plus solar version



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10. Condensation discharge
11. Solar circulation unit
12. Solar collectors

X Clivet accessory

A Water supply inlet

B Domestic hot water

C Domestic hot water recirculation

AQUA Plus: Optional accessories

VENX – External fan

Accessory external fan, which extends the available static pressure up to **200Pa** for size 190 and **240Pa** for size 300.



COPX – Wires for options connection

The accessory includes wires for easier connection to the PCB for the following options:

- **Solar input** (only 190S and 300S): 220-240~ signal input form solar system
- **On/Off input**: contact for unit remote on/off input
- Connection wire RS485 for connection of **Modbus** or **ELFOControl³ EVO system**

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