

> HT - 1

STORAGE TANK WITH AIR-WATER HEAT PUMP
FOR DOMESTIC HOT WATER PRODUCTION
FOR INDOOR INSTALLATION

Available range

Versions

VA Version with storage tank
for domestic hot water

Solar integration

S1 With coil



Unit description

This series of **air-water** heat pumps satisfies the domestic hot water production requirements of small residential plants.

All the units are suitable for indoor floor standing installation and are equipped with a **stainless steel storage tank** containing domestic hot water which is kept at the desired temperature (up to maximum 60°C) extracting heat from the outdoor air by means of the heat pump integrated inside the unit.

The inlet and outlet air ducts can be configured in various ways in order to fit the different installation needs and to recover the available energy coming from other rooms inside the building.

The domestic hot water contained inside the storage tank is heated by means of an aluminium coil wound around the storage tank in order to guarantee a **double wall insulation** between the refrigerant gas and the domestic hot water.



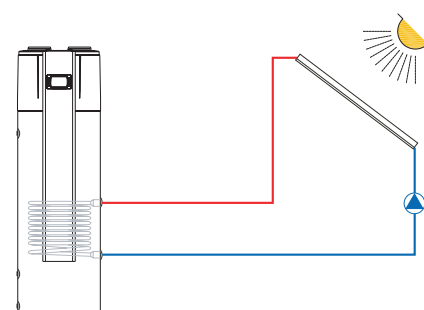
The storage tank is equipped with safety valve and magnesium anode and is properly insulated in order to reduce thermal losses

Inside the storage tank is also installed an electrical heater to integrate the heating power supplied by the heat pump, that in any case can work without any problem up to outdoor air temperature of 0°C by means of hot gas injection defrosting cycles.

The tank is furthermore equipped with a stainless steel coil for solar integration.

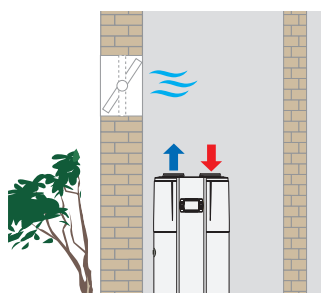
The management of the unit is performed by means of a microprocessor controller with a "touch screen" display.

All the units are accurately built and individually tested in the factory. Only electric, aeraulic and hydraulic connections are required for installation.

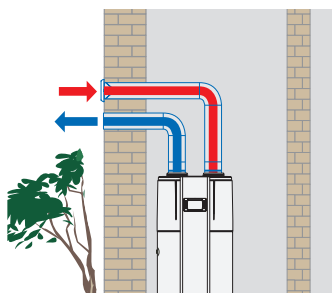


AERAULIC CONNECTIONS CONFIGURATION

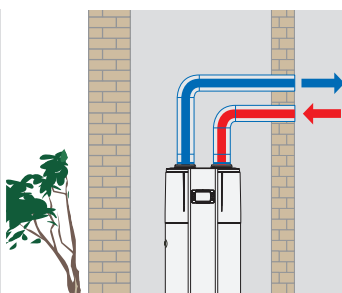
Use of energy available in the installation room



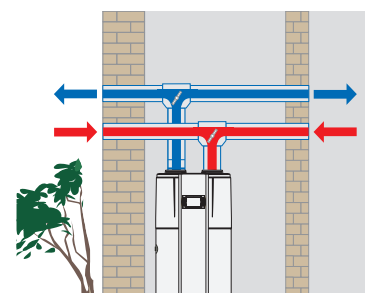
Use of energy available outdoor



Use of energy available in a near room



Use of energy available in different rooms



AERAULIC performances	200	250	300	
Air flow rate max / min	350 / 150	350 / 150	350 / 150	m³/h
Ducts diameter	150	150	150	mm
Maximum overall ducts lenght	8	8	8	m

TECHNICAL DATA	200	250	300	
Power supply	230 - 1 - 50			V-ph-Hz
Type of compressor	rotary			-
Type of fan	centrifugal			-
Electrical integrative heater power	1500			W
Storage tank volume	200	250	300	l
Solar integration coil surface	1,0	1,5	2,0	m ²
Weight	82	86	94	kg
Operating weight	282	336	394	kg

	NOMINAL performances	200	250	300	
1	Heating up time : t_h	5 : 20	7 : 30	9 : 00	hh : mm
	Heating up energy input : W_{eh}	2,40	3,31	3,98	kWh
2	Stand by power input : P_{es}	35	38	40	W
	Class of reference tapping cycle	L	L	L	-
3	Energy input during the cycle : W_{EL-TC}	4,40	4,43	4,46	kWh
	Efficiency during the cycle : COP_{DHW}	2,65	2,63	2,61	-
4	Reference hot water temperature : θ_{WH}	55	55	55	°C
	Maximum quantity of usable hot water : V_{max}	0,254	0,318	0,381	m ³

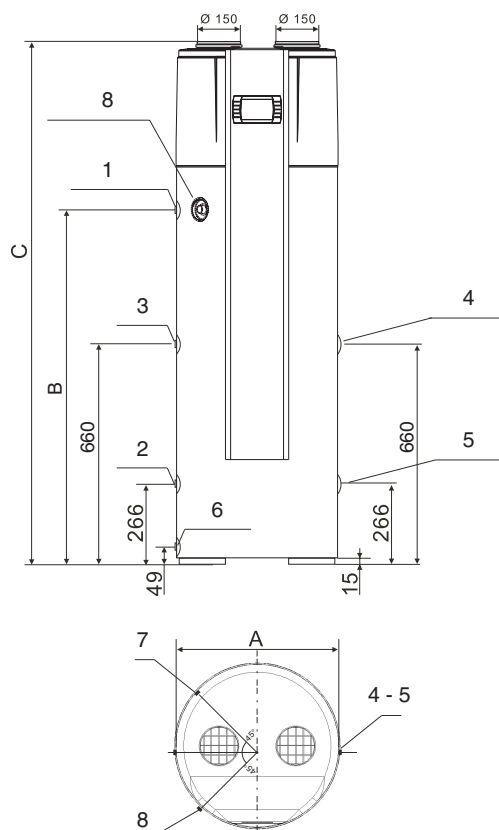
Data declared according to **EN 16147**.

- 1 Heating up cycle : air inlet 15°C d.b. 12°C w.b. / starting temperature of the water in the tank 10°C
 2 Stand by : air inlet 15°C d.b. 12°C w.b.

ACOUSTIC performances	200	250	300	
Sound power level	45	45	45	dB(A)

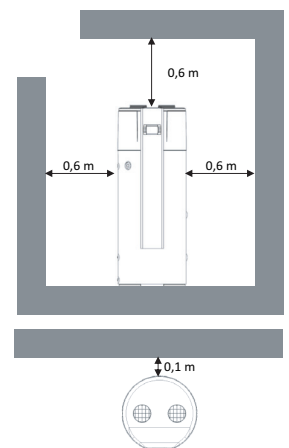
Unit placed in free field on reflecting surface (directional factor equal to 2).
 The sound power level is measured according to ISO 3744 standard.

DIMENSIONS AND MINIMUM OPERATING AREA



1	Domestic hot water outlet	3/4" F
2	Domestic cold water inlet	3/4" F
3	Domestic hot water recirculation	3/4" F
4	Solar integration outlet	3/4" F
5	Solar integration inlet	3/4" F
6	Storage tank discharge	3/4" F
7	Condensate discharge (defrost cycles)	1/2" F
8	Safety valve fitting	3/4" F

Respect the free area around the unit as shown in figure in order to guarantee a good accessibility and facilitate maintenance and control operations.



	200	250	300	
A	560	560	640	mm
B	1041	1297	1135	mm
C	1705	1950	1800	mm