

SWP High temperature air cooled heat pumps for the production of domestic hot water

R134a



- **AIR COOLED HEAT PUMPS FOR HOT WATER PRODUCTION UP TO 60°C (UP TO 70°C WITH AUXILIARY ELECTRIC HEATER)**
- **APPLICATION RANGE: IN HEAT PUMP WITH AIR INTAKE FROM 8°C TO 35°C (EXTENDED FROM -15°C TO 45°C WITH THE AID OF THE AUXILIARY ELECTRIC HEATER)**
- **VERSIONS WITH 300 LITRES STORAGE TANK, OR WITH 1 OR 2 COILS TO BE USED TOGETHER WITH OTHER HEAT SOURCES (SOLAR PANELS, BOILER, HEAT PUMP)**
- **AUTOSTART FUNCTION FOR THE UNIT TO RESTART AUTOMATICALLY**

Features

The SWP heat pumps use the thermal energy of air for production of domestic hot water. The process occurs in the most efficient and profitable way with average COPs > 3. The energy advantage of the SWP heat pumps also safeguards the environment, using most of its energy from solar radiation. Easy installation, silent and reliable functioning and very low maintenance requirements complete the benefits of this highly ecological and economic system.

Main features

- Steel tank with a double vitrification
- Condenser wrapped externally to the boiler with no scales and refrigerant-water fluid contamination
- Auxiliary coil to be used together with a boiler or solar panels
- Integrated NTC sensor to control the water temperature
- External air sensor for automatic connection of the electric heater with unfavourable temperatures in heat pump mode
- Anti-corrosion magnesium anode
- Hydraulic connections located at rear of unit
- Thermal insulation made of very thick expand-

ed polyurethane foam with a silver grey RAL 2006 external covering (ABS)

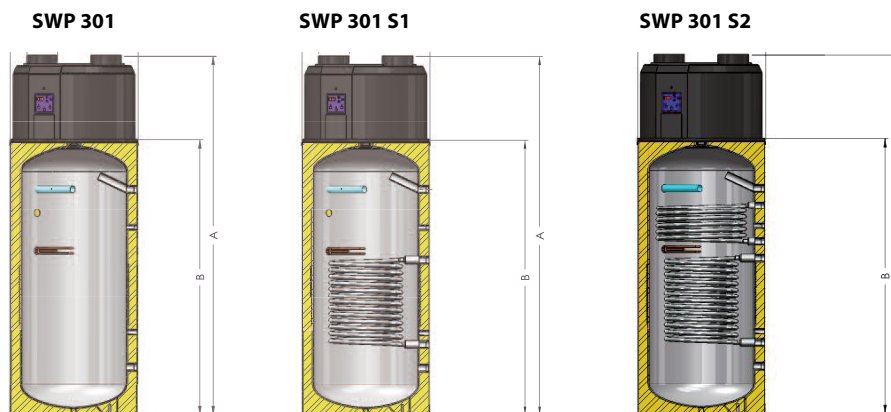
- Adjustable support feet
- Environmentally friendly refrigerant R134a
- Electric heater 1.5 kW 230V
- IEC power supply connector with insulating sheath
- High pressure safety devices
- Reciprocating hermetic compressor
- Radial fan with an adjustment of 40 % of the nominal flow rate
- Electronic controller:
 - water set point adjustment
 - external air temperature sensing
 - auto-diagnostic with display of the high/low pressure alarm, water overheating alarm and disconnected sensors alarm
 - record of run hours
 - control of minimum time between successive compressor starts
 - setting of parameters from the keyboard
 - control of electric heater in manual mode or in supplementary automatic mode for low external temperatures
 - periodic antibacterial treatment cycle to eliminate and prevent Legionella from developing

- user display to set the operating mode and various parameters with different levels of accessibility by means of passwords

Possible configurations

- Standard where the heat pump and the electric heater are the source of heat (SWP 301)
- With auxiliary coil to be used together with a boiler or solar panels (SWP 301 S1)
- With double auxiliary coils for simultaneous use of three heat sources (SWP 301 S2)

Dimensional Data (mm)



Technical Data

Mod.		SWP 301	SWP 301 S1	SWP 301 S2
Voltage - phases - frequency	V-Ph-Hz	230 - 1 - 50	230 - 1 - 50	230 - 1 - 50
Energy Efficiency Class	(1)	A	A	A
Heating capacity in heat pump mode	W	1950	1950	1950
Electric heater power	W	1500	1500	1500
Maximum water temperature	°C	60	60	60
Intake air operating range	°C	+8*/+35	+8*/+35	+8*/+35
Total input power	W	640	640	640
Max total input current in heat pump mode	A	3,9	3,9	3,9
Max total input current in electric heater mode	A	6,8	6,8	6,8
Compressor	n°	1	1	1
Fan	n°	1	1	1
Air flow rate	m³/h	450	450	450
Sound power level	dB(A)	60	60	60
Sound pressure (1m)	dB(A)	49	49	49
Max ducted length	m	10	10	10
Air ducts minimum diameter	mm	160	160	160
Working pressure	bar	6	6	6
DHW hot water flow connection		1"	1"	1"
DHW cold water return connection		1"	1"	1"
Heating system return connection		1"	1"	1"
Heating system flow connection		1"	1"	1"
Recirculation connection		1/2"	1/2"	1/2"
Alternative heat source 1 and 2 return connection		1"	1"	1"
Net weight	Kg	116	94	134
Gross weight	Kg	112	127	145
Storage tank capacity	L	273	268	265
Unit dimensions	Height mm	1.845		
	Width mm	660		
	Depth mm	660		
Packaging dimensions	Height mm	2.050		
	Width mm	770		
	Depth mm	770		

* default settings

Sound pressure measured in free field at a distance of 10m from the front and directivity factor = 2. In accordance with ISO 3744.

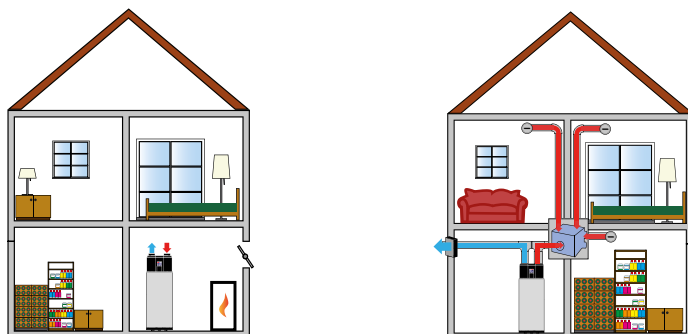
Performances in accordance with EN 255-3

Heating:

Condenser

Inlet temperature	15 °C
Outlet temperature	50 °C
External air temperature	15 °C

Installation Examples



Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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