

# SWP

High temperature AIR/WATER heat pumps for production of domestic hot water.

## R134a



- **AIR HEAT PUMPS FOR HOT WATER PRODUCTION UP TO 60°C (AND UP TO 70°C WITH THE AID OF THE ELECTRIC RESISTANCE)**
- **FIELD OF APPLICATION: IN HEAT PUMP WITH AIR INTAKE FROM 8°C TO 35°C (CAN BE EXTENDED TO -15°C TO 45°C WITH THE AID OF THE ELECTRIC RESISTANCE)**
- **VERSION WITH 200 OR 300 LITERS STANDARD, OR WITH STORAGE TANK OR WITH 1 OR 2 COILS TO BE USED TOGETHER WITH A NUMBER OF INTEGRATIVE SOURCES (SOLAR PANELS, BOILER, HEAT PUMP)**
- **AUTOSTART FUNCTION FOR THE UNIT TO RESTART AUTOMATICALLY**

### Features

The SWP heat pumps use heat energy of the air for production of domestic hot water. The process occurs in the most efficient and profitable way, with average C.O.P.'s > 3. The energetic 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 required complete the benefits of this highly ecological and economic system.

#### Main features

- Steel tank with a double vitrification layer with storage capacity of 200 liters, (SWP 200, SWP and SWP 200 S2 200S1) and 300 liters, (SWP 300, SWP and SWP 300 S2 300S1)
- Condenser wrapped externally to the boiler with no scales and fluid refrigerant-water contamination
- Auxiliary coil to be used together with a boiler or solar panels
- Integrated NTC probe to control the water temperature
- External air probe for the electric resistance to connect automatically with unfavourable temperatures in the heat pump

- Anti-corrosion magnesium anode
- Hydraulic fittings placed in the rear part
- Thermal insulation made of very thick polyurethane foam with a silver grey RAL 2006 external covering (ABS)
- Adjustable support feet
- Ecological gas R134a
- Electric resistance 1.5 kW 230V
- IEC power supply connector with insulating sheath
- High pressure safety devices
- Alternative hermetic compressor
- Radial fan with an adjustment of 40 % of the nominal flow rate
- Electronic management:
  - water set point adjustment;
  - external air temperature detection;
  - self-diagnosis with display of the high/low pressure alarm, water overheating alarm and disconnected probes alarm;
  - record of functioning hours;
  - management of minimum intervals when the compressor is subsequently switched on;
  - setting parameters from the keyboard;
  - resistance management in manual mode or in integrated automatic mode for low values of

the external temperature;

- entering the cyclic antibacterial treatment to eliminate and prevent legionella from forming.
- user display to set the functioning mode and various parameters with different levels of accessibility by means of passwords

#### Possible configurations

- Standard where the heat pump and the electric resistance are the source of heat (SWP 200 and SWP 300)
- With auxiliary coil to be used together with a boiler or solar panels (SWP 200 S1 and SWP 300 S1)
- With double auxiliary coil for three sources of energy to be set up simultaneously (SWP 200 S2 and SWP 300 S2)

## Dimensional data (mm)

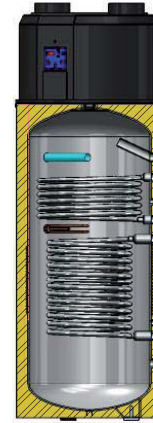
SWP 200 - SWP300



SWP 200 S1 - SWP300 S1



SWP 200 S2 - SWP300 S2



## Technical data

| Mod.                                                     | SWP 200 / SWP 200 S1 / SWP 200 S2 |     |       | SWP 300 / SWP 300 S1 / SWP 300 S2 |     |       |     |  |
|----------------------------------------------------------|-----------------------------------|-----|-------|-----------------------------------|-----|-------|-----|--|
| Voltage - phases - frequency                             | V-Ph-Hz                           |     |       | 230 - 1 - 50                      |     |       |     |  |
| Heating capacity in heat pump                            | W                                 |     |       | 2.150                             |     |       |     |  |
| Electric resistance power                                | W                                 |     |       | 10500                             |     |       |     |  |
| Maximum water temperature                                | °C                                |     |       | 60                                |     |       |     |  |
| Intake air functioning range                             | °C                                |     |       | +8*/+35                           |     |       |     |  |
| Total input power when hot                               | W                                 |     |       | 640                               |     |       |     |  |
| C.O.P.                                                   | W/W                               |     |       | 3,3                               |     |       |     |  |
| Max total input current when hot - heat pump             | A                                 |     |       | 3,9                               |     |       |     |  |
| Max total input current when hot - electrical resistance | A                                 |     |       | 6,8                               |     |       |     |  |
| Compressor                                               | Tipo / numero                     |     |       | alternativo/1                     |     |       |     |  |
| Fan                                                      | Tipo / numero                     |     |       | centrifugo/1                      |     |       |     |  |
| Air flow rate                                            | m³/h                              |     |       | 450                               |     |       |     |  |
| Min sound power                                          | dB(A)                             |     |       | 59                                |     |       |     |  |
| Max sound power                                          | dB(A)                             |     |       | 71                                |     |       |     |  |
| Max ducted length                                        | m                                 |     |       | 10                                |     |       |     |  |
| Air ducts minimum diameter                               | mm                                |     |       | 160                               |     |       |     |  |
| Work pressure                                            | bar                               |     |       | 6                                 |     |       |     |  |
| ♪Sound pressure level                                    | dB(A)                             |     |       | 52                                |     |       |     |  |
| Domestic hot water withdrawal                            |                                   |     |       | 1"                                |     |       |     |  |
| Heating system return                                    |                                   |     |       | 1"                                |     |       |     |  |
| Heating system flow                                      |                                   |     |       | 1"                                |     |       |     |  |
| Connections heating flow                                 |                                   |     |       | 1"                                |     |       |     |  |
| Connections recirculation                                |                                   |     |       | 1/2"                              |     |       |     |  |
| Alternative source of energy 1 and 2 return              |                                   |     |       | 1"                                |     |       |     |  |
| Net weight                                               | Kg                                | 79  | 101   | 86                                | 116 | 94    | 134 |  |
| Gross weight                                             | Kg                                | 100 | 122   | 107                               | 137 | 115   | 155 |  |
| Storage tank capacity                                    | l                                 | 200 |       |                                   | 300 |       |     |  |
| Unit dimensions                                          | Height                            | mm  | 1.670 |                                   |     | 1.865 |     |  |
|                                                          | Width                             | mm  | 660   |                                   |     | 660   |     |  |
|                                                          | Depth                             | mm  | 660   |                                   |     | 660   |     |  |
| Packaging dimensions                                     | Height                            | mm  | 2.050 |                                   |     | 2.050 |     |  |
|                                                          | Width                             | mm  | 770   |                                   |     | 770   |     |  |
|                                                          | Depth                             | mm  | 770   |                                   |     | 770   |     |  |

\* default settings

♪ Sound pressure measured in a free field with a front distance of 10m and direction factor = 2 In compliance with the ISO 3744 standard

Performance is in line with EN 14551 norms

Heating:

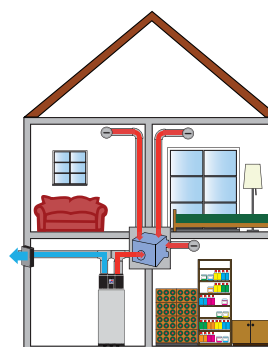
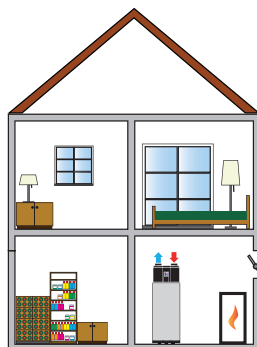
Condenser

Input temperature 15 °C

Output temperature 50 °C

External air temperature 15 °C

## Installation examples



The technical data given in this documentation is not binding. Aermec S.p.A. reserves the right to apply at any time all the modifications deemed necessary for improving the product.

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