



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





- 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 200 OR 300 LITRES STORAGE TANK, OR WITH I 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 layer with storage capacity of 200 litres, (models SWP 200, SWP 200 S1 and SWP 200 S2) and 300 litres, (SWP 300, SWP 300 S1 and SWP 300 S2)
- 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
- External air sensor for automatic connection of the electric heater with unfavourable tem-
- temperature

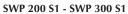
- peratures in heat pump mode
- Anti-corrosion magnesium anode
- Hydraulic connections located at rear of unit
- Thermal insulation made of very thick expanded polyurethane foam with a silver grey RAL 2006 external covering (ABS)
- Adjustable support feet
- Environmentally friendly refrigerant R134a
- Electric heater 1.5 kW 230V
- IEC power supply connector with insulating Possible configurations 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

- · Standard where the heat pump and the electric heater 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 coils for simultaneous use of three heat sources (SWP 200 S2 and SWP 300 S2)

SWP 200 - SWP 300



### SWP 200 S2 - SWP 300 S2







### **Technical Data**

Heating capacity in heat pump mode   W   2.150   2.150   2.150   2.150     Electric heater power   W   1500   1500   1500   1500     Maximum water temperature   °C   60   60   60   60   60	2.150 1500 60 3*/+35 640 3,3 3,9 6,8
Electric heater power   W   1500   1500   1500   1500     Maximum water temperature   °C   60   60   60   60   60     Intake air operating range   °C   +8*/+35 <td>1500 60 3*/+35 640 3,3 3,9</td>	1500 60 3*/+35 640 3,3 3,9
Maximum water temperature   °C   60   60   60   60   60     Intake air operating range   °C   +8*/+35   46   6   6   6 <td< td=""><td>60 3*/+35 640 3,3 3,9</td></td<>	60 3*/+35 640 3,3 3,9
Intake air operating range   °C   +8*/+35   48     COP   450   45	3*/+35 640 3,3 3,9
Total input power   W   640   640   640   640   640     COP   W/W   3,3   3,3   3,3   3,3   3,3   3,3   3,3   3,3   3,3   3,3   3,3   3,3   3,3   3,3   3,3   3,3   3,9   <	640 3,3 3,9
COP   W/W   3,3   3,9 <td>3,3 3,9</td>	3,3 3,9
COP   W/W   3,3   3,9   450   450   450 <td>3,9</td>	3,9
Max total input current in electric heater mode A   6,8   6,9   59   59   59   59   59   59   59	
Compressor   Type / number   reciprocating/1     Fan   Type / number   centrifugal/1     Air flow rate   m³/h   450   450   450   450     Min sound power   dB(A)   59   59   59   59   59     Max sound power   dB(A)   71   71   71   71   71     Max ducted length   m   10   10   10   10   10     Air ducts minimum diameter   mm   160   160   160   160     Working pressure   bar   6   6   6   6   6     Sound pressure level   dB(A)   52   52   52   52   52     DHW hot water flow connection   1"   1"   1"   1"   1"   1"     Heating system return connection   1"   1"   1"   1"   1"   1"     Heating system flow connection   1"   1"   1"   1"   1"   1"   1"   1"	6,8
Fan   Type / number   centrifugal/1     Air flow rate   m³/h   450   450   450   450     Min sound power   dB(A)   59   59   59   59   59     Max sound power   dB(A)   71   71   71   71   71     Max ducted length   m   10   10   10   10   10     Air ducts minimum diameter   mm   160   160   160   160   160     Working pressure   bar   6   6   6   6   6     Nound pressure level   dB(A)   52   52   52   52   52     DHW hot water flow connection   1"   <	
Air flow rate m³/h 450 450 450 450 450   Min sound power dB(A) 59 59 59 59 59   Max sound power dB(A) 71 71 71 71 71   Max ducted length m 10 10 10 10 10   Air ducts minimum diameter mm 160 160 160 160 160   Working pressure bar 6 6 6 6 6 6   Sound pressure level dB(A) 52 52 52 52 52   DHW hot water flow connection 1" 1" 1" 1" 1" 1"   DHW cold water return connection 1" 1" 1" 1" 1" 1" 1"   Heating system flow connection 1" 1" 1" 1" 1" 1" 1" 1" 1"	
Min sound power   dB(A)   59   59   59   59   59     Max sound power   dB(A)   71	
Max sound power   dB(A)   71 <td>450</td>	450
Max ducted length   m   10   10   10   10   10     Air ducts minimum diameter   mm   160   160   160   160     Working pressure   bar   6   6   6   6   6     Sound pressure level   dB(A)   52   52   52   52   52     DHW hot water flow connection   1"   1"   1"   1"   1"   1"     DHW cold water return connection   1"   1"   1"   1"   1"   1"   1"   1"     Heating system flow connection   1"	59
Air ducts minimum diameter   mm   160   160   160   160     Working pressure   bar   6   6   6   6   6     Sound pressure level   dB(A)   52   52   52   52   52     DHW hot water flow connection   1"   1"   1"   1"   1"   1"     DHW cold water return connection   1"   1"   1"   1"   1"   1"     Heating system flow connection   1"   1"   1"   1"   1"   1"	71
Working pressure   bar   6   6   6   6   6     ♪Sound pressure level   dB(A)   52   52   52   52   52     DHW hot water flow connection   1" <td>10</td>	10
Sound pressure level   dB(A)   52   52   52   52   52     DHW hot water flow connection   1"	160
DHW hot water flow connection   1"	6
DHW cold water return connection   1"	52
Heating system return connection 1" 1" 1" 1" 1" 1" 1" 1" 1" 1" 1" 1" 1"	1"
Heating system flow connection 1" 1" 1" 1" 1"	1"
Treating system now connection	1"
Recirculation connection 1/2" 1/2" 1/2" 1/2" 1/2"	1"
1/2 1/2 1/2	1/2"
Alternative heat source 1 and 2 return connection 1" 1" 1" 1" 1" 1"	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	
Height 1.670 1.865	
Unit dimensions Width 660 660	
Depth 660 660	
Height 2.050 2.050	
Packaging dimensions Width 770 770	
Depth 770 770	

<sup>\*</sup> 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

 $\begin{array}{ll} \mbox{Inlet temperature} & 15 \ ^{\circ}\mbox{C} \\ \mbox{Outlet temperature} & 50 \ ^{\circ}\mbox{C} \\ \mbox{External air temperature} & 15 \ ^{\circ}\mbox{C} \\ \end{array}$ 

### **Installation Examples**



