SWP

High-temperature air-water heat pump for DHW production

- **Production of hot water up to 60°C (70°C with the electric heater)**
- **Operation with suction air from 8°C to 35°C (extended to -15°C to 45°C with the electric heater)**
- **Versions with standard storage tank or with 1 or 2 coils to be used in combination with several additional sources**

DESCRIPTION

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.

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 expanded polyurethane foam with a silver grey RAL 2006 external covering (ABS)
— Adjustable support feet
— Gas R134a
— Electric heater 1500 W 230V
— High pressure safety devices
— Rotary 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

VERSIONS

SWP301: Standard where the heat pump and the electric heater are the source of heat.
SWP 301S1: With auxiliary coil to be used together with a boiler or solar panels.
SWP301S2: With double auxiliary coils for simultaneous use of three heat sources.

ACCESSORIES

SWPTA: Electronic anode

ACCESSORIES COMPATIBILITY

Accessory	SWP301	SWP301S1	SWP301S2
SWPTA	•	•	•

PERFORMANCE SPECIFICATIONS

		SWP301	SWP301S1	SWP301S2
Performance in heating mode from 10°C to 54°C (1)				
Heating capacity	W	1950	1950	1950
Electric input power (average)	W	488	488	488
Electric input power (maximum)	W	700	700	700
Input power in standby (Pes)	W	43	43	43
COP (2)	W/W	2,91	2,91	2,91
Heating time	hh:mm	07:22	07:22	07:22

(1) Values measured when heating the water from 10°C to 54°C with 15°C inlet air temperature and 71% relative humidity
(2) Value obtained on the entire L-type withdrawal cycle, at the reference temperature of 54° C (as required by EN 16147)

ELECTRIC DATA

		SWP301	SWP301S1	SWP301S2
Power supply				
Power supply		230V~50Hz	230V~50Hz	230V~50Hz
Electric heater				
Number	no.	1	1	1
Input power	W	1500	1500	1500
Maximum current	A	10,00	10,00	10,00

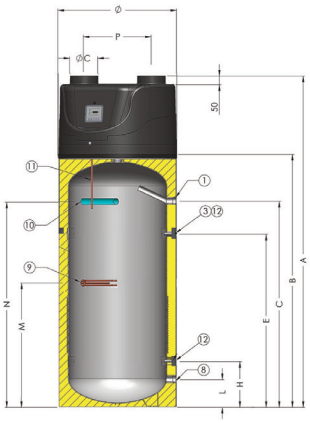
GENERAL TECHNICAL DATA

		SWP301	SWP301S1	SWP301S2
Accumulation inertial				
Storage tank capacity	l	273	268	265
Insulation thickness	mm	50	50	50
Type of corrosion protection	type		Anodo sacrificale in magnesio	
Maximum operating pressure	bar	6	6	6
Maximum working pressure of auxiliary coil (inf./sup.)	bar	10,0	10,0	10,0
Auxiliary serpentine surface (inf./sup.)		-	1,5	1,5/0,6
Capacity required for the coil 80/60 ° C (inf./sup.)		-	1,6	1,6/0,6
Domestic hot water production 80/60 ° C - 10/45 ° C (DIN 4708)		-	0,9	0,9/0,3
Maximum volume of DHW usable at 40 ° C (Vmax)	l	370	370	370
Max DHW temperature with heat pump	°C		60 (55 di fabbrica)	
Fan				
Type	type		Radiale	
Number	no.	1	1	1
Air flow rate	m^3/h	450	450	450
High static pressure	Pa	80	80	80
Sound data				
Sound power level	dB(A)	60,0	60,0	60,0
Sound pressure level (L_pA at 1 metre) (1)	dB(A)	49,0	49,0	49,0

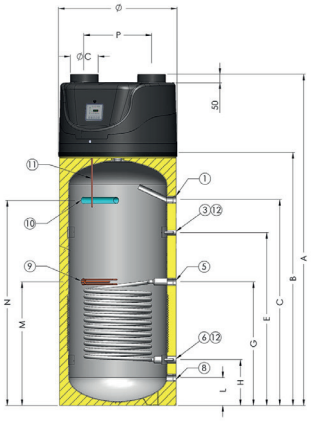
(1) In free field, with non-ducted inlets/outlets

DIMENSIONS

SWP 301



SWP 301S1



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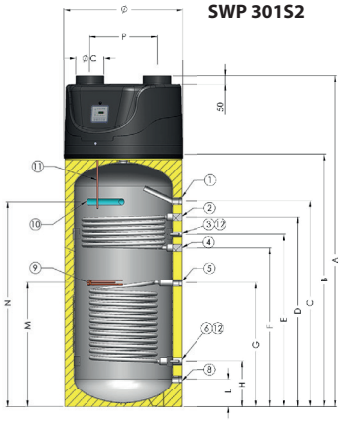

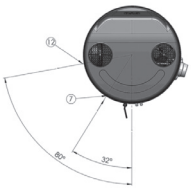

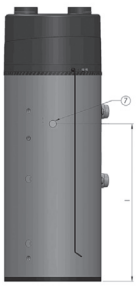

Key:

1 Hot water withdrawal - Rp 1"
2 Heating delivery - Rp 1"
3 Recirculation - Rp 1/2"
4 Heating return - Rp 1"
5 Solar delivery - Rp 1"
6 Solar return - Rp 1"
7 Condensate drainage - Rp 1/2"
8 Chilled water inlet Rp 1"
9 Electric heater Rp 1" 1/4
10 Anode Rp 1" 1/4
11 Control probe sump L = 700 mm Rp 1/2"
12 Probe sump L = 70 mm, Ø 12 mm

		SWP301	SWP301S1	SWP301S2
Dimensions and weights				
A	mm	1845	1845	1845
B	mm	1410	1410	1410
C	mm	1150	1150	1150
D	mm	-	-	1060
E	mm	965	965	965
F	mm	-	-	890
G	mm	-	690	690
H	mm	-	255	255
I	mm	965	965	965
L	mm	155	155	155
M	mm	690	690	690
N	mm	1145	1145	1145
Ø	mm	660	660	660
Øc	mm	160	160	160
Weight for transport	kg	112,00	127,00	145,00

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