

SHERPA SHW

Water heater in heat pump



PHOTOVOLTAIC INTEGRATION

Contact for integration with photovoltaic plant, which forces switch-on and raises the machine set-point. The energy produced by the photovoltaic system is stored to lower the DHW production costs and maximise the energy saving.



SOLAR MANAGEMENT

Solar thermal compatible: the unit can work with a second energy source such as solar panels (solar circulator management). Valid only for model 300S.



SMART CONTROL

The actual setting of the heat pump is adjusted by a climatic curve, to prevent high pressure alarms from occurring in case of hot air drawn from the outside (above 25°C with water at 65°C, above 35°C with water at 55°C).



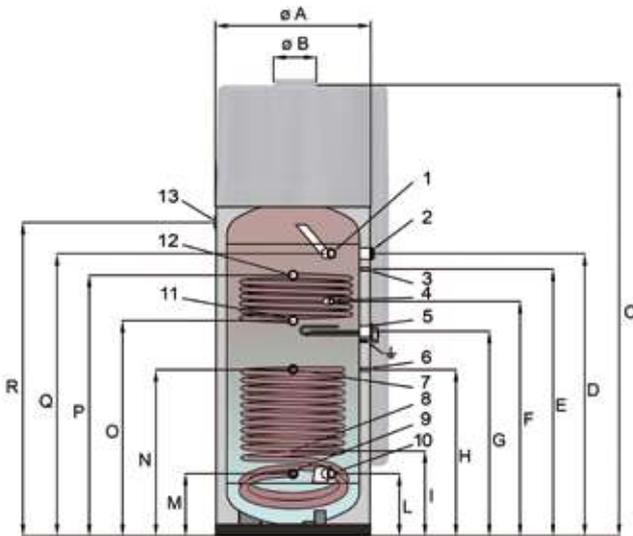
FEATURES

- **Available in two versions:** standard model with heat pump, electric heating element and 200 lt tank (Sherpa SHW ST 200); model with solar panel coil, electric heating element and 300 lt tank (Sherpa SHW ST 300S).
- **COP>2.6* DHW at 65°C**
- **Energy class:** A
- **Working range** in the heat pump with air temperature from -10°C to 43°C.
- **Carbon steel tank** with double layer vitrification.
- **Anti-corrosion magnesium anode** to ensure tank durability.
- **Condenser wound outside** the storage tank free from deposits and gas-water contamination.
- **Thermal insulation** in rigid polyurethane foam (PU) with 45 mm thickness
- **External coating in plastic material.** Acoustically insulated top cover in plastic.
- **High-efficiency compressor** with R134a refrigerant**.
- **Safety devices** for high and low gas pressure.
- **Electric heating element** available in the unit as a back-up (with integrated thermostat with safety at 90°C), which ensures hot water at constant temperature even in extreme winter conditions.
- **ON-OFF contact** to start the unit from an external switch.
- **Weekly disinfection cycle.**
- **Possibility to manage the recirculation** of domestic hot water or the solar integration (presence of a dedicated temperature probe, flow switch inlet and control for an external pump). Valid only for model 300S
- **Electronic expansion valve** for a timely check.



* Ambient air temperature 7°C b.s./6°C b.u., water temperature from 10°C to 55°C (EN 16147).

** Non-hermetically sealed equipment containing fluorinated gas with GWP equivalent 1430.



	200	300S
A mm	654	654
B mm	177	177
C mm	1638	1888
D mm	1007	1177
E mm	862	1112
F mm	742	977
G mm	742	852
H mm	567	692
I mm	-	352
L mm	257	257
M mm	257	257
N mm	692	692
Q mm	927	1177
R mm	1063	1313

- 1. 1" Hot water delivery
- 2. Anode 1" 1/4
- 3. Temperature probe top tank Ø 10
- 4. 1/2" recirculation
- 5. 1" 1/4 Electric heating element
- 6. Temperature probe bottom tank Ø 10
- 7. 1" Solar energy delivery
- 8. Auxiliary temperature probe tank Ø 10
- 9. 1" Solar energy return
- 10. 1" domestic cold water inlet
- 11. Condensate drain Ø 16

TECHNICAL DATA

		SHERPA SHW S1 200	SHERPA SHW S1 300S
		02267	02268
Electrical power supply	W/Ph/Hz	220-240/1Ph+N+PE/50	220-240/1Ph+N+PE/50
Actual tank capacity	L	228	278
Thermal power	W	2060* (+1200**)	2060* (+1200**)
Absorbed power	W	700* (+1200**)	700* (+1200**)
COPDHW***	W/W	2.64	2.85
COPDHW****	W/W	2.81	3.03
Maximum absorption	W	765 (+1200**)	765 (+1200**)
Cold tank heating time*	h:min	7:48	9:53
Cold tank heating time with active electric heating element*	h:min	3:41	4:41
Work environment temperature	°C	-10 ~ +43	-10 ~ +43
Refrigerant gas (d)	MPa	R134a	R134a
Refrigerant loading	g	920	920
Nominal air flow	m3/h	450	450
Air flow at 60 Pa	m3/h	350	350
Maximum permissible tank pressure	bar	10	10
Auxiliary electric heating element	kW	1.2	1.2
Solar exchange coil surface	m²	-	1.2
Protection class		IPX1	IPX1
Weight with tank full of water	Kg	326	400
Gross weight	Kg	112	137
Sound power level (a)	dB(A)	58	58
Sound pressure (b)	dB(A)	43	43
Load profile (c)		L	XL
Energy efficiency class (c)		A	A
DHW (c)	%	101	117

*Ambient air temperature 20°C, water temperature from 15°C to 55°C.
 **In relation to the auxiliary resistance. During the disinfection cycle, the temperature is raised to 70°C by the auxiliary heating element.
 ***Ambient air temperature 7°C b.s./6°C b.u., water temperature from 10°C to 55°C [EN 16147].
 ****Ambient air temperature 14°C b.s./12°C b.u., water temperature from 10°C to 55°C [EN 16147].

(a) measured according to the EN 12102 standard under the conditions of the EN 16147 standard.
 (b) calculated according to algorithm ISO 3744:2010 at 1 m from the unit.
 (c) average climatic conditions (+7°C) according to regulation EU 812/2013.
 (d) non-hermetically sealed equipment containing fluorinated gas with GWP equivalent 1430.

ACCESSORIES

B0841	1" F flow switch kit	300S
B0842	Kit temperature probe	300S

Optional accessory

Accessory description on page 50

Please note that optional accessories are available for purchase with all models of the heat pump. When compatibility is only possible with certain sizes, the information is shown in the table. Standard accessories are already included in the heat pump code.