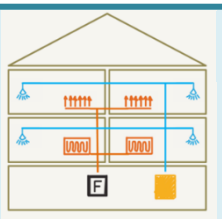
Newly built, Marseille

F1.4

New built private collective housing: collective hot water production by solar heat pump



Key facts

Buildings

Location	*Marseille, France*
Construction	*2015*
Heated space	*2833 m² living*
Level of insulation	*BBC-Effinergy label*

Heat pump and source

Number of	*2*
Installed power	*2 x 12kW*
Operation mode	*DHW only*
Heat source	*unglazed solar panels 100m²*

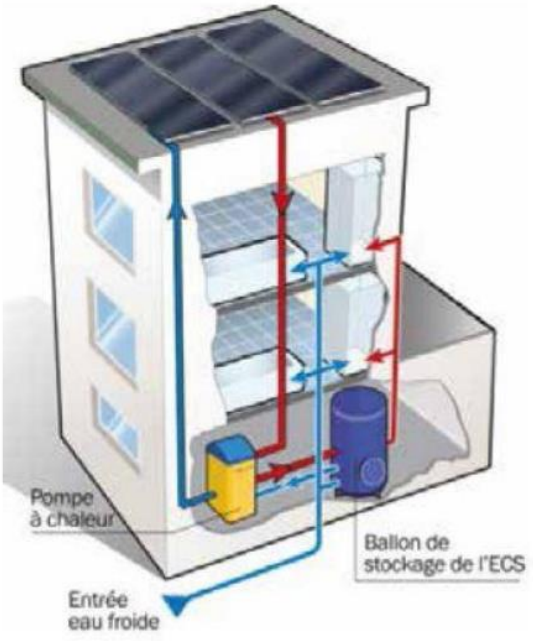
Domestic hot water

DHW production	*collective hp*
Type of system	central
Max. temperature	*60 °C*
Hot water storage	*2 x 2000l*

Other information

Annual Coefficient of Performance	*3.63*
Renewables part	*70%*
Electrical part of hp	*27%*
Electrical back-up	*3%*

This new built private housing is located in Marseille, in South-East of France. Climate and sunshine are very favorable to the installation of a “solar heat pump”, which means that the cold source consists of unglazed solar panels installed on the building roof.



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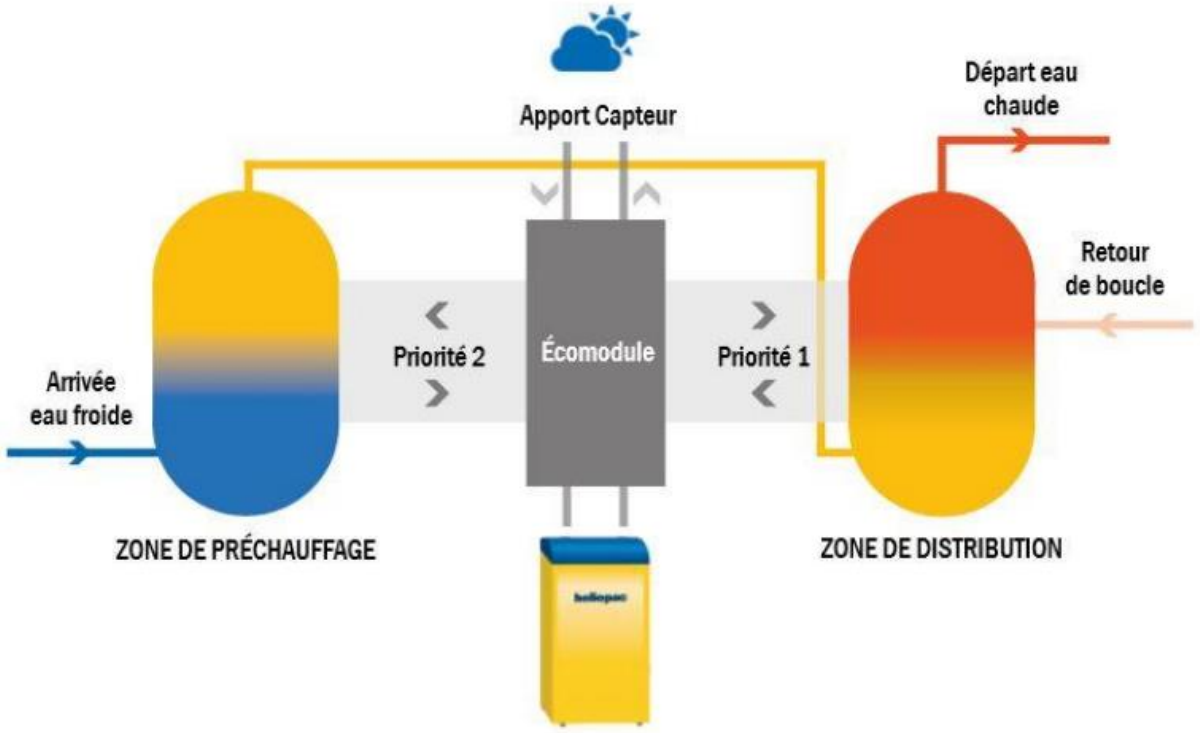

Description of the technical concept

The system consists of:

- 2 x 12kW Brine/Water heat pump Solerpac®
- 2 storage tanks with a 2000 liters capacity each
- 100m^2 unglazed solar panels

Heilpacsystem® is a domestic hot water production technology for collective adaptations. It uses specific solar panels able to collect energy from both sun and air.

Here, heat is collected on the roof by 100m^2 unglazed solar panels. Brine heated in these panels is sent in the evaporators of the heat pumps.

Bureau d'études : Elithis Dijon
Installateur : Sodexal
Installateur : Heliopac