



Solar Domestic Water Heating – AventaSolar

Aventa's system for solar heating of domestic hot water (DHW) is suited for new-built houses and for retrofit projects. The central system component is the AventaSolar collector. Further the system consists of a special designed domestic hot water boiler, the pipe system and the solar controller, which secure optimal operation and solar energy gain from solar collector system.

The AventaSolar collectors are designed for building integration and can be installed on a tilted roof or facade. It is also important to place the solar collectors so that a satisfying solution from an architectural point of view is obtained. For easy integration the collectors are available in various standard lengths, and they save costs and installation of conventional roof/facade claddings.



Easy installation

The Aventa system is easy to install. The solar collectors are low-weight and part of a drain-back system. The solar collector loop contains water and is not pressurised. Hence the installation of the collectors can be performed by roof/facade installers. The set-up and connection of the domestic hot water store to fresh water and electric power supply is comparable to conventional heat stores and has to be done by authorised installers.

Dimensioning

- The size of the collector area and the heat store is dimensioned according to the overall domestic hot water (DHW) demand or the number of DHW consumers in the house. The collector area is also adapted to the available area on the building's roof or facade.
The collector performance depends on the building's orientation and the tilt angle of the roof. For northern and middle European climates tilt angles between 30° and 60° with orientation direct south are optimal. If this does not apply, the solar collector area should be increased.
- The domestic hot water store has a standard volume of 331 litres - 270 litres domestic water and 61 liter drain-back volume with system water. In well designed systems, solar energy can cover a substantial fraction of the DHW demand and a built-in electric heating element provides back-up heating for DHW preparation.

Contact

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