

Two vertical elements feature the house design.

The first one is a **wind tower**, inspired by traditional Arab architecture. In the daytime it catches outer air and refresh it passing through an underground channel. Combined with a CMV (Controlled Mechanical Ventilation), air filters and an aspiration system (when needed) it promotes natural ventilation and cooling.

Of course, during the warmer season, this isn't enough to grant the indoor comfort. So, in addition, there's a traditional channeled air-conditioning.

By night, opening windows, a pyramid-shaped **ventilation chimney** with louvers allows the stack effect which enables the passive movement of air through the building. This can be done manually or by a home automation system.

Thanks to photovoltaic panels on the roof and an underground water tank, the house can be self-sustained.

