

CSV 2

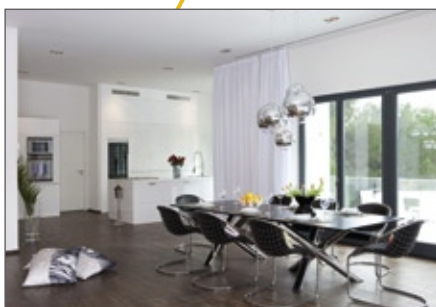
Palma de Mallorca, Spain



Residential building

Villa

Energy concept, design and site management for energy system for full climate control using renewable energies, preparation of DHW in single family dwelling of 440 m² of habitable space located on the island of Mallorca. The installation consists of 20 m² of solar collectors, a 22 kW geothermal pump, 400 ml of geothermal drilling situated in the garden of the dwelling and distributed in 4 wells of 100 ml. The solar collectors save 32% of the requirements of the dwelling, the remainder is produced by the geothermal heat pump with a COP of 4.1 – 5.5. Heating is provided via low-temperature heated floors to optimise the solar contribution and boost the yield of the heat pump. Refrigeration is provided by fan coils under suspended ceilings designed to work with a geothermal heat pump.



Project data

Property type:	Villa
Year of construction:	2009
Gross floor area (GFA):	440 m ²
Residential units:	1
Completion:	2009
Use:	Heating, refrigeration, hot water
Main components:	22 kW geothermal pump, solar thermal system 10 x IS PRO 2Q, 400 ml geothermal wells
Energy savings per year:	39.221 kWh/a
Reduction in CO ₂ emissions per year:	13.727 kg CO ₂ /year
Regenerative portion of energy demand:	80 %