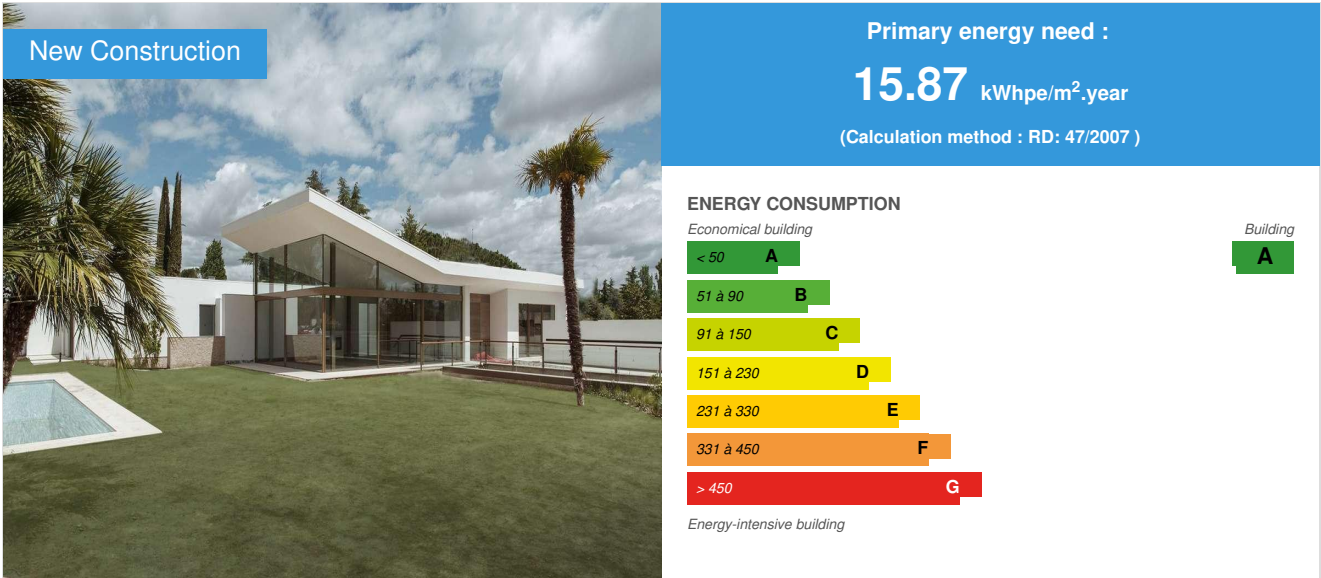


Detached house in Alcobendas

by Santiago Bouzada Biurrun / 2019-06-18 12:12:33 / España / 6962 / ES



Building Type : Isolated or semi-detached house

Construction Year : 2019

Delivery year : 2019

Address 1 - street : Travesía de Mesoncillos 3 28109 ALCOBENDAS, España

Climate zone : [Csa] Interior Mediterranean - Mild with dry, hot summer.

Net Floor Area : 410 m²

Construction/refurbishment cost : 1 552 460 €

Cost/m2 : 3786.49 €/m²

General information

It is a single-family home in which we have opted for the integration of passive energy-saving, low emission active and control measures to have a balance between comfort and consumption. Natural cross ventilation and mechanical ventilation with heat recovery and free-cooling, active yards, geothermal energy, solar control and natural lighting, artificial lighting based on LEDs, large insulation and durable and local materials, make this home an example of implementation of the sustainability in architecture without giving up design.

Data reliability

Self-declared

Stakeholders

Contractor

Name : MOLIOR CONSTRUCCIONES Y URBANISMO S.L.

Contact : Manuel González Weil. c/ Alcalá 119, 4 izq. 28009 - Madrid. 918 057 200

<http://www.molior.es>

Construction Manager

Name : MOLIOR CONSTRUCCIONES Y URBANISMO S.L.

Contact : Manuel González Weil. c/ Alcalá 119, 4 izq. 28009 - Madrid. 918 057 200

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Stakeholders

Function : Designer

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Function : Others

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Collaborating architect

Function : Others

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Collaborating Architect

Contracting method

Separate batches

Owner approach of sustainability

The developer has always had the advice of the architecture team, experts in environmental philosophy, and has always been open to incorporate any systems and improvements that could make the building more sustainable without affecting the design, its best selling tool.

Architectural description

It is a U-shaped building developed mainly in a living plant at the ground floor-access level, plus a basement where, in addition to the space for vehicles, a garden-level patio is incorporated that reaches the deck and is the heart of the house. The patio divides the most social spaces from the most private ones. There is always a communication between rooms that, combined with the large windows, makes the borders between interior and exterior dissipate and the garden "enters" into the house.

The living room incorporates more natural light by breaking the roof to open even more into the garden, but the cover is extended as a visor to prevent direct entry of the sun in the central hours of the day. The interior patio regulates the temperature and ventilation in the housing since, as a chimney, it can be opened at the top to create drafts that pass through the vegetation and renew the air.

Energy

Energy consumption

Primary energy need : 15,87 kWhpe/m².year

Primary energy need for standard building : 54,20 kWhpe/m².year

Renewables & systems

Systems

Heating system :

- Geothermal heat pump

Hot water system :

- Other hot water system

Cooling system :

- Geothermal heat pump

Ventilation system :

- Natural ventilation
- Nocturnal ventilation
- Double flow heat exchanger

Renewable systems :

- Heat pump (geothermal)

Environment

GHG emissions

GHG in use : 2,90 KgCO₂/m²/year

Methodology used :

HU CTE-HE and CEE Version 1.0.1564.1124

Costs

Urban environment

Single-family housing in a residential area with excellent road connection and all services. Even garbage separation. With the bus stop less than 100m, connecting the neighbourhood with the urban centre of Alcobendas in less than 20 minutes.

Land plot area

Land plot area : 2 500,00 m²

Built-up area

Built-up area : 15,00 %

Green space

Green space : 2 100,00

Parking spaces

Semi-underground parking for 4 vehicles covered but open with provision for RVE

Building Environmental Quality

Building Environmental Quality

- indoor air quality and health
- biodiversity
- acoustics
- energy efficiency
- renewable energies
- integration in the land

Contest

Reasons for participating in the competition(s)

Edificio con bajo consumo y bajas emisiones gracias a la utilización de energías renovables, a los sistemas eficientes de baja temperatura, a la ventilación con recuperación de calor y al gran aislamiento térmico.

Gran interacción interior-exterior y recorridos que conjugan zonas sombreadas y ajardinadas exteriores con espacios interiores anexos. Patio ajardinado que atempera el clima interior gracias a la evapotranspiración y a la ventilación controlada. Gran cantidad de luz natural controlada con sistemas de protección de la incidencia solar directa. Sistema integrado de control domótico de iluminación, calefacción y clima. Iluminación artificial completamente LED de bajo consumo.

Building candidate in the category



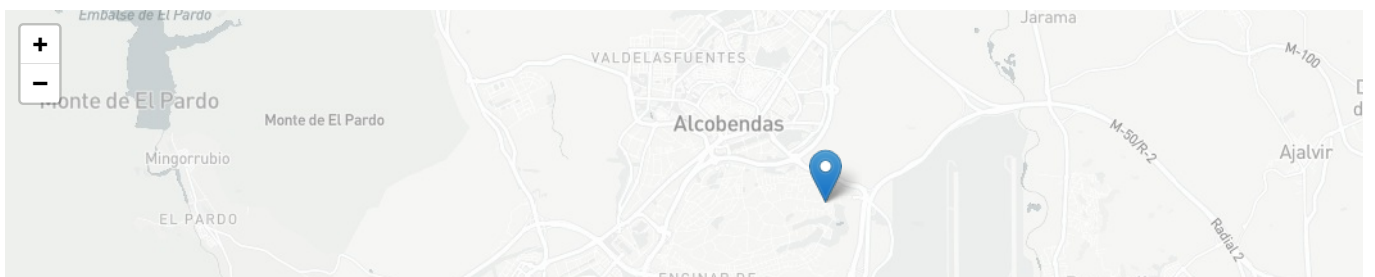
Energía & Climas Temperados



Salud & Comodidad



Premio de los Usuarios





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