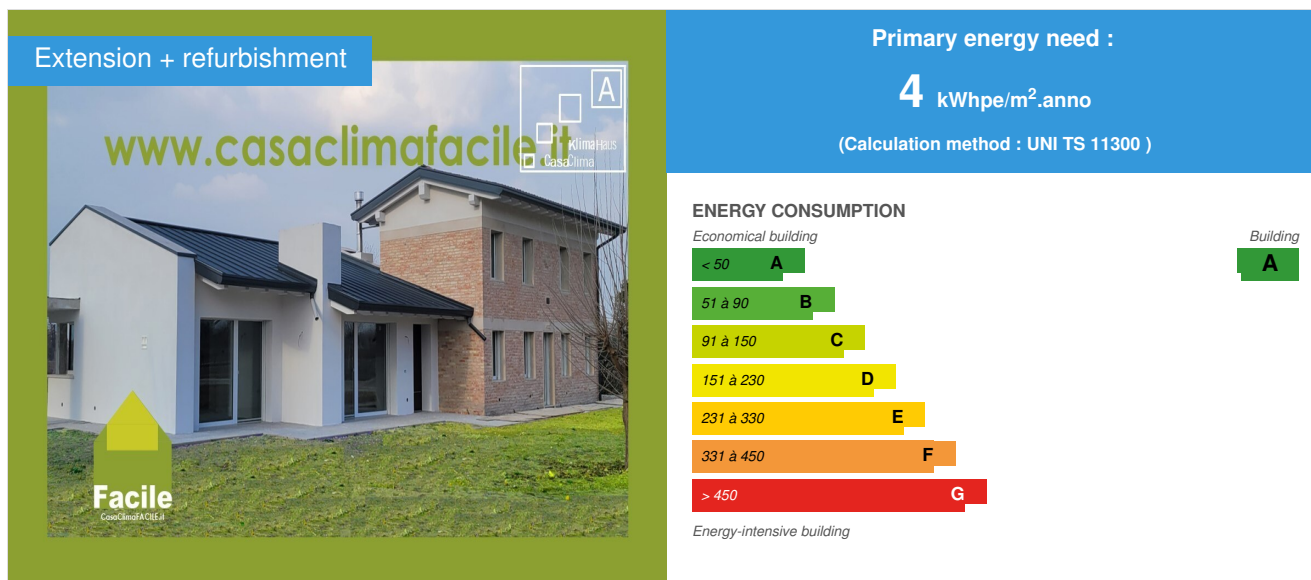


## CasaClima Class A - House B in Sacile

by [Domenico Pepe](#) / 2022-06-11 15:25:04 / Italia / 219 / IT



**Building Type** : Terraced Individual housing  
**Construction Year** : 2022  
**Delivery year** : 2022  
**Address 1 - street** : via dello sport 33077 SACILE, Italia  
**Climate zone** : [Csa] Interior Mediterranean - Mild with dry, hot summer.

**Net Floor Area** : 154 m² Other  
**Construction/refurbishment cost** : 250 000 €  
**Cost/m²** : 1623.38 €/m²

### General information

The intervention was energetically designed by the Ing Domenico Pepe [Design Studio](#) and Arch Mariano Sessa (specialized in [modern house design](#)) to maintain the original characteristics of the building, while creating a contemporary-looking building.

The [design of villas](#) requires a lot of attention to detail and in fact the building has undergone a partial demolition and expansion. The historic part has remained with exposed brick, accentuating the structure and integrating it into the new construction.

The seismic and energy improvement intervention aimed to protect the image of the historic building, making it more modern and welcoming.

The goal of the intervention was to make the house more comfortable, save money and reduce CO2 emissions.

[CasaClima](#) is a certification system that allows you to easily obtain the best construction standards.

The certification process is complex and difficult to achieve.

In some cases I was able to verify that some clients, companies or artisans wanted to obtain the [CasaClima projects](#) certification, but they had no idea where to start. Some people were confused about this energy certification scheme and didn't know how to get it.

In fact, [CasaClima](#) is a certification that requires a lot of work and research between the type of materials and the optimization of installations.

For this reason we imagined and then created a method that would make it much easier to achieve the result.

This building has also been certified CasaClima and we were able to achieve the result thanks to the method that accompanies all the players step by step towards the positive final result.

To see the national publications of the project please visit this page:

[CasaClima](#)

## Data reliability

3rd part certified

## Photo credit

Mariano Sessa

## Stakeholders

### Contractor

Name : Lorenzon srl

### Construction Manager

Name : Lorenzon srl

## Owner approach of sustainability

The building has been certified CasaClima Class A.

The use of heat pumps and the combination with photovoltaics allows the reduction of overall emissions.

## Architectural description

The intervention was designed to maintain the original features of the building, while creating a building with a contemporary look. The building was the subject of a partial demolition and expansion. The historic part has remained with exposed brick, accentuating the structure and integrating it into the new construction. The seismic and energy improvement intervention wanted to protect the image of the historic building, making it more modern and welcoming. The goal of the intervention was to make the house more comfortable, save money and reduce CO2 emissions.

## Energy

### Energy consumption

Primary energy need : 4,00 kWhpe/m<sup>2</sup>.anno

Primary energy need for standard building : 7,00 kWhpe/m<sup>2</sup>.anno

Calculation method : UNI TS 11300

Initial consumption : 150,00 kWhpe/m<sup>2</sup>.anno

### Envelope performance

Envelope U-Value : 0,18 W/m<sup>2</sup>K

More information :

WALLS: The external walls of the building envelope, before the works, were mainly characterized by the following stratigraphy, indicative thickness and indicative thermal characteristics: 25-30cm solid brick wall used mainly until 1950 with U = 2.01 W/m<sup>2</sup>K

The intervention on the building involved the intervention on a first stratigraphy with an internal 18 cm coat and on the second type of stratigraphy a 20 cm external coat.

Building Compactness Coefficient : 0,87

Indicator : EN 13829 - n50 » (en 1/h-1)

Air Tightness Value : 1,59

## Renewables & systems

## Systems

### Heating system :

- Heat pump

### Hot water system :

- Heat pump

### Cooling system :

- Reversible heat pump

### Ventilation system :

- compensated Air Handling Unit

### Renewable systems :

- Solar photovoltaic

Renewable energy production : 35,00 %

## Environment

### GHG emissions

GHG in use : 2,00 KgCO<sub>2</sub>/m<sup>2</sup>/anno

#### Methodology used :

CasaClima

Building lifetime : 100,00 anno/i

## Products

### Product

SigilloVenti.it

SigilloVenti.it

SigilloVenti.it

[www.SigilloVenti.it](http://www.SigilloVenti.it)

#### Product category :

Unique method for the realization of Blower door Test to collaborate to achieve successes and not to certify defeats.

The method provides for the continuous updating of all the craftsmen throughout the manufacturing process



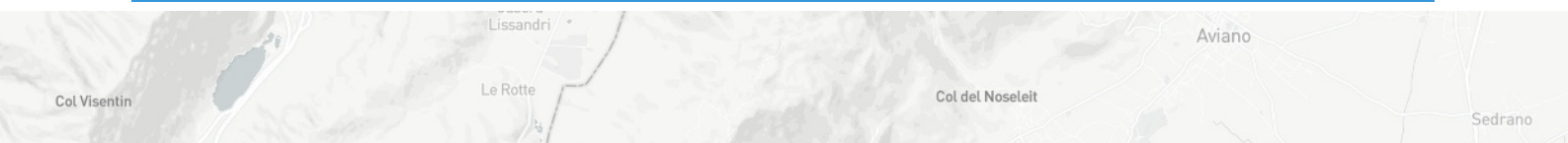
## Costs

### Urban environment

The building is located in a countryside setting.

The countryside of the Friuli plain is characterized by a uniform landscape.

## Contest



Building candidate in the category



Users' Choice

