Industrial building Bonatti irrigations

by Nicola Preti / 2016-07-07 16:52:34 / Italia / 11185 / IT

New Construction

Primary energy need : 150 kWhpe/m².anno
(Calculation method : UNI TS 11300 )

ENERGY CONSUMPTION

<table>
<thead>
<tr>
<th>Building Type</th>
<th>Construction Year</th>
<th>Delivery year</th>
<th>Address 1 - street</th>
<th>Climate zone</th>
<th>Net Floor Area</th>
<th>Construction/refurbishment cost</th>
<th>Cost/m²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logistics warehouse</td>
<td>2010</td>
<td>2012</td>
<td>VIA PAPA GIOVANNI PAOLO II, 8 - BUTTAPIETRA, Italia</td>
<td>[Csa] Interior Mediterranean - Mild with dry, hot summer.</td>
<td>3 000 m² Superficie útil</td>
<td>3 150 000 €</td>
<td>1050 €/m²</td>
</tr>
</tbody>
</table>

General information

Industrial building working as a nearly energy building through passive construction system and active energy producer

See more details about this project

http://www.nicolapreti.it/#/fuori-dalle-righe/

Data reliability

Self-declared

Stakeholders
Contracting method
Lump-sum turnkey

Owner approach of sustainability
Sustainability is a continuous work of innovation. Each of my project is the experimentation of a new approach with technology. In this case the scope of the project and the objectives of the client were: - create a nearly zero energy building - create a natural interior atmosphere thanks to natural lighting - make the building work as a thermal mass.

Architectural description
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If you had to do it again?
I think the project had a good outcome due to the successful communication and collaboration between the stakeholders involved. The architecture the materials, and the energy choices were deeply discussed before the implementation. I wouldn't change anything.

Building users opinion
The users are the worker of the warehouse and the employees of the offices. They are both very satisfied with the thermal comfort inside the building, both in winter and in summer. In particular the employees of the office are satisfied with the temperature with a very low power heating system.

Energy

Energy consumption
Primary energy need : 150,00 kWhpe/m².anno
Primary energy need for standard building : 400,00 kWhpe/m².anno
Calculation method : UNI TS 11300
CEEB : 0.0001
Final Energy : 105,00 kWhte/m².anno

Envelope performance
Envelope U-Value : 0.32 W/m²K
More information :
Wall: two-slab walls with thermal insulation
Windows: polycarbonate Thermoclick thickness 40 mm
Roof:
Renewables & systems

Systems

Heating system:
- Condensing gas boiler
- Water radiator

Hot water system:
- Condensing gas boiler

Cooling system:
- No cooling system

Ventilation system:
- Natural ventilation

Renewable systems:
- Solar photovoltaic

Products

Product

Progress Thermowand
Progress
info@progress.cc

http://www.progress.cc/it

Product category: Obras estructurales / Estructura - Albañilería - Fachada

Double prefabricated concrete wall with internal insulation

The product had a great success between the stakeholders thanks to the thermal comfort and the very low cost of other heating systems.

Lexan Thermoclick
Ampelite
vicorders@ampelite.com.au


Product category: Obras estructurales / Estructura - Albañilería - Fachada

Polycarbonate panels used as screens for sunlight

Great acceptance thanks to the diffuse light it creates in the interior of the building.

Costs

Construction and exploitation costs

Renewable energy systems cost: 1 500 000,00 €
Total cost of the building: 1 650 000 €
Urban environment

The building is close to other industrial buildings. The surroundings are countryside areas.

Land plot area

Land plot area: 6 000,00 m²

Built-up area

Built-up area: 50,00 %

Green space

Green space: 406,00

Parking spaces

322 mq

Building Environmental Quality

Building Environmental Quality

- comfort (visual, olfactive, thermal)
- renewable energies
- building process

Contest

Building candidate in the category

Energy & Temperate Climates

Users' Choice Award