



## PHOTOVOLTAIC SOLAR ENERGY BIPV-BUILDING INTEGRATED PHOTOVOLTAIC GREENHOUSES



The greenhouses are enclosures in which temperature, humidity and other environmental factors are kept help to promote agricultural crops. They are always located in open areas where they receive large amounts of direct solar radiation.

The greenhouses commonly used in agriculture, have an arc section and are located longitudinally north-south to reduce excessive radiation during mid-day. The overall result in a cultivation system is characterized by an optimal temperature profile avoiding peaks that may be harmful.

Solar Innova greenhouses are calculated and constructed to resist both the weight of its own roof with photovoltaic modules and other loads such as rain, wind and snow.

The metallic structure in Solar Innova greenhouses is obtained by repeating a base module whose floor and elevation dimensions have been designed specifically so that the installation of the photovoltaic system is completely fit. Its crystal and metal structure is perfect for the integration of solar panels and from an aesthetic point of view it does not have any impact in the surrounding environment.

We have several possibilities to meet different needs:

- Multi-shed roof: This structure is specially indicated for large surfaces, it avoids diminishing the greenhouse effect and brings the possibility of producing electricity, maximizing the productivity of crops.
- One-side roof: This model allows the total coverage of the surface for the installation of the photovoltaic system and, therefore, it permits to obtain a great production of electricity.
- Shed roof: Similar to the previous one but with one of the sides of the cover without covering to allow greater luminosity in case it is necessary for the crops.