

# **PVing Parks**

Solar canopies for self-consumption

Technology for energy efficiency

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# **PVing Parks**

Harness energy and make a profit where you didn't before. A decrease in the cost of photovoltaic solar installations, together with an increase in the price of electrical energy, has quickly led to the appearance of many types of offers and innovations in photovoltaic generation systems. After years of dedication and work on improving electrical efficiency, CIRCUTOR has designed a comprehensive solution that integrates instant self-consumption with electrical vehicle charging.

### The most complete system

PVing PARKS is a solution that combines a photovoltaic solar canopy with a charging system for electric vehicles. This solution enables the production of energy during daylight hours to cover part of the electricity consumption of an installation and the charging of electric vehicles. PVing Parks include all the elements necessary for their installation:

Photovoltaic modules Structures Inverter

AC and DC protection panels Control and monitoring equipment Electric vehicle charging systems



### Features



ESSENTIAL

#### Certification and stability

Compliance with **CTE** and **Eurocodes** (includes climatic loads from the Canary Islands). It is stable even if the foundation/base is not very large.

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#### Easy mechanic assembly of the PV modules. No lifeline is required, assembly can be done from below using scaffolding or a scissor lift.

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#### Pre-designed foundations

The elements to make the foundations are supplied so that they fit perfectly with the canopy.



#### Cabling system for all wiring

All wiring of the PV modules is inside the canopy and can be easily manipulated through panels, remaining hidden and protected.



#### Impermeability

Not all solar canopies offer this feature, but the CIRCUTOR canopy is appropriately fitted to collect water and prevent leaks.



#### Integration of an electric vehicle charger This is the only canopy that offers the possibility of integrating an electric car charger into its structure.



#### Aesthetic impact

Although subjective, the CIRCUTOR canopy design focuses on proportions and formal definition, so it stands out from the industrial aesthetics of other canopies designed with IPE standards.

### Advantages



#### Use of renewable energy.

Reduced  $CO_2$  emissions; all the energy generated by the system is clean thanks to the photovoltaic panels.



#### Electric vehicle charging.

It offers the possibility of adding electric vehicle chargers. In this way we can integrate PV generation and charging in the same solution.



### Completely modular

Solar canopies are flexible to meet customer needs. The different features and functionalities can be combined to create a canopy that best suits the installation.



### 3 models





Reduction of energy costs.

Generation *in situ* which helps to reduce energy consumption in the electrical network.



#### Remote monitoring.

Monitoring and supervision of the electricity consumption of the installation and PV generation. All this improves the performance and efficiency of the system.

### Applications

An ideal solution for business infrastructures, shopping centres and service areas. It offers users the possibility to charge their vehicle and generate photovoltaic energy to cover installation consumption. These types of infrastructures are places that need more electric vehicle charging points, as electric cars need to charge their batteries to continue with their journey. Solar canopies solve this problem in that they are not only shelters for vehicles, but also include a charging system that uses renewable energy, and they are preferred by users of electric vehicles.



### Energy Management Software

There are two software versions available for managing the canopy and its associated infrastructure. **PVmonitor** provides the main electrical data and energy information regarding the installation. The more complete version (**PowerStudio SCADA**) provides full energy management and monitoring of all the canopies.



### Electric vehicle charging

As an additional feature, along with generating photovoltaic energy, the canopies can be supplemented with an advanced charging system for electric vehicles. There are two electric vehicle charging systems for solar canopies. One available option is the WallBox or charging stations integrated directly at the foot of the canopy.Or you can choose the option with Urban charge posts which also have a double power socket as well as built-in communications, freeing the user to decide where to install them as they are not built into the canopies.

#### Connection

Connector type: Type I, Type II or Schuko Charging type: Mode 1 / Mode 2 / Mode 3

#### **Electrical features**

Input voltage: 230 Vac / 400 Vac Input frequency: 50...60 Hz

#### Interface Access: RFID system card Communications: Ethernet or 3G (Optional)

Safety Protection degree : IP 54 / IK 10



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