

SOLAR CARPORTS

Gardiun
TECHNO



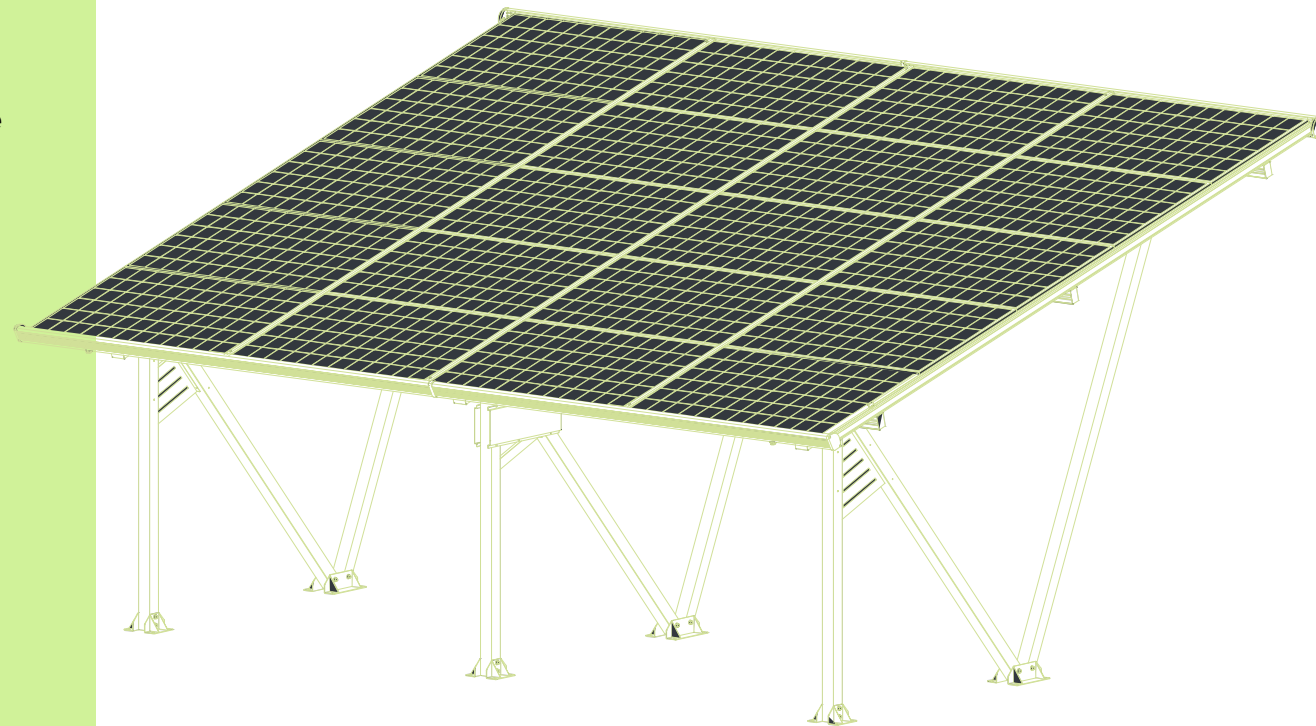
GARDIUN PRESENTS THE SOLAR CARPORTS FOR ELECTRIC VEHICLES

Solar carports are here to stay and transform the concept of outdoor parking we had until now.

They are robust metal structures that protect your vehicle in outdoor car parks and have integrated solar panels.

These structures are capable of generating 100% renewable energy, They also protect your car from the weather and UV rays, thus prolonging its life span.

That is why **Gardiun, an expert brand in transforming your outdoor space with intelligent solutions,** joins the green trend to offer you high quality products with the best cutting-edge technology. Products that promote savings, sustainability and efficiency.





HOW DO THE PANELS OF A SOLAR CARPORT WORK?

Solar panels harness sunlight through special photovoltaic cells that convert this energy into electricity.

This electricity can be used **in your home, to power the charging points** of your electric vehicles, either now or later, or **you can store it in batteries** for future use.

They also **help you save on your electricity bill** because they reduce your dependence on the traditional electricity grid **and greatly increase the value of your property.**

WHY ARE THEY A GOOD INVESTMENT?

As you can see, a solar photovoltaic carport is much more than just a parking space for your car. It is a good purchase because the **payback periods** have already gone from 9 years to **5 years and even 3 years on average**.

For this to happen in such a short time, several factors have intervened, such as **state subsidies from European funds that are managed through the communities, reductions in property tax (IBI), deductions in personal income tax and the significant increase in electricity bills**.

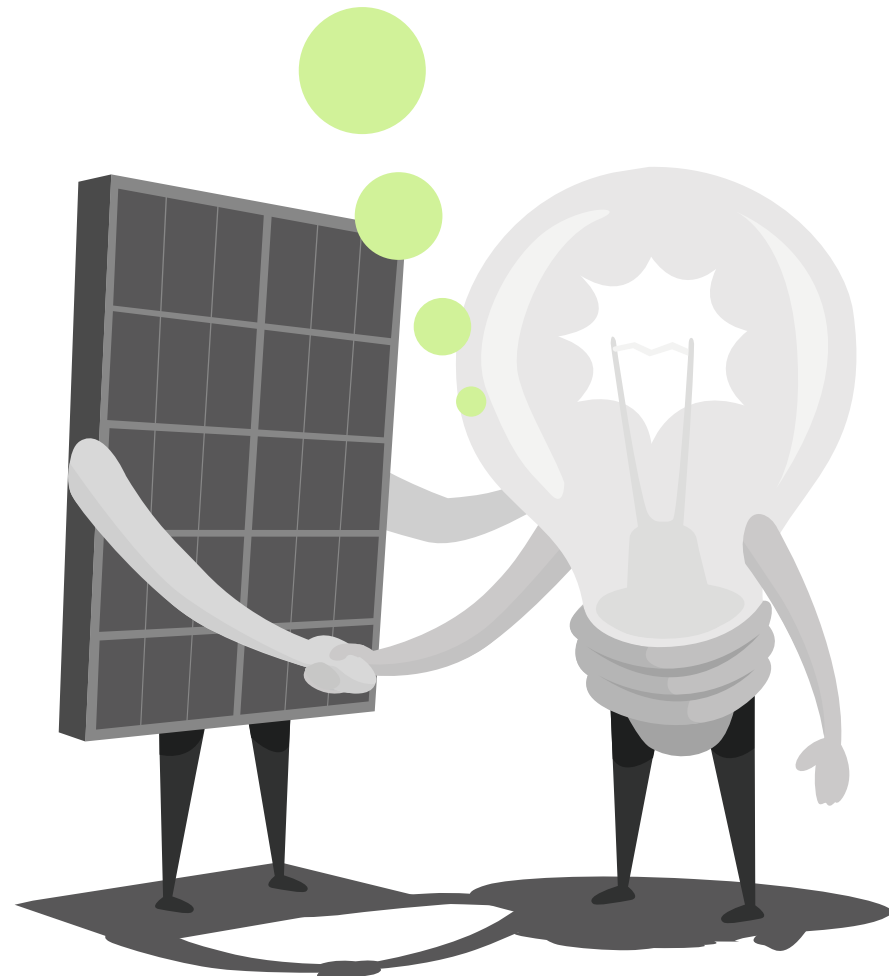
But, most importantly, we cannot forget that, **once the initial investment has been amortised, the kWh we generate are almost free**.

Go with the flow and move from the traditional garage to the sustainable one, to benefit from all its advantages today and in the future.

RETURN ON INVESTMENT

BEFORE 9 years

NOW 3~5 years



SOLAR CARPORT **PEARSON**

DIN EN1991-1-3+EN13561(2015); DIN EN1932 (2013)



WHAT IS THE STRUCTURE OF PEARSON PHOTOVOLTAIC CANOPIES LIKE?

- **Solar panels.** Integrates 20 solar panels.
- **Premium material.** It is made of 2.5 mm thick aluminium. This material is not only lightweight (thus facilitating installation), but is also highly resistant to corrosion.
- **Sturdy legs.** The 10 x 10 cm legs form a solid and stable base, perfect for supporting heavy loads, including the force of the wind and the weight of possible snow accumulations.
- **Reinforced fixings.** It has 6 ground fixings, providing additional stability. These fixings are designed to ensure that the structure remains firmly in place, even in adverse weather conditions. In addition, being reinforced, they offer superior resistance to vibrations and unforeseen movements.
- **Gutters and downpipes.** It has gutters and downpipes to facilitate the drainage of rainwater and thus extend its useful life.
- **Roof with 15 degrees of inclination**, which also has an avant-garde design, which will add an elegant touch to the outdoor space of your home.
- **Durability and minimal maintenance.** Thanks to the high quality aluminium, our canopy will not rust or warp over time. It is resistant to corrosion and UV rays. This significantly reduces maintenance costs and ensures a flawless appearance for years to come.
- **Easy to install.** Although robust, this structure is easy to assemble, with clear instructions and components designed for hassle-free assembly.



POWER



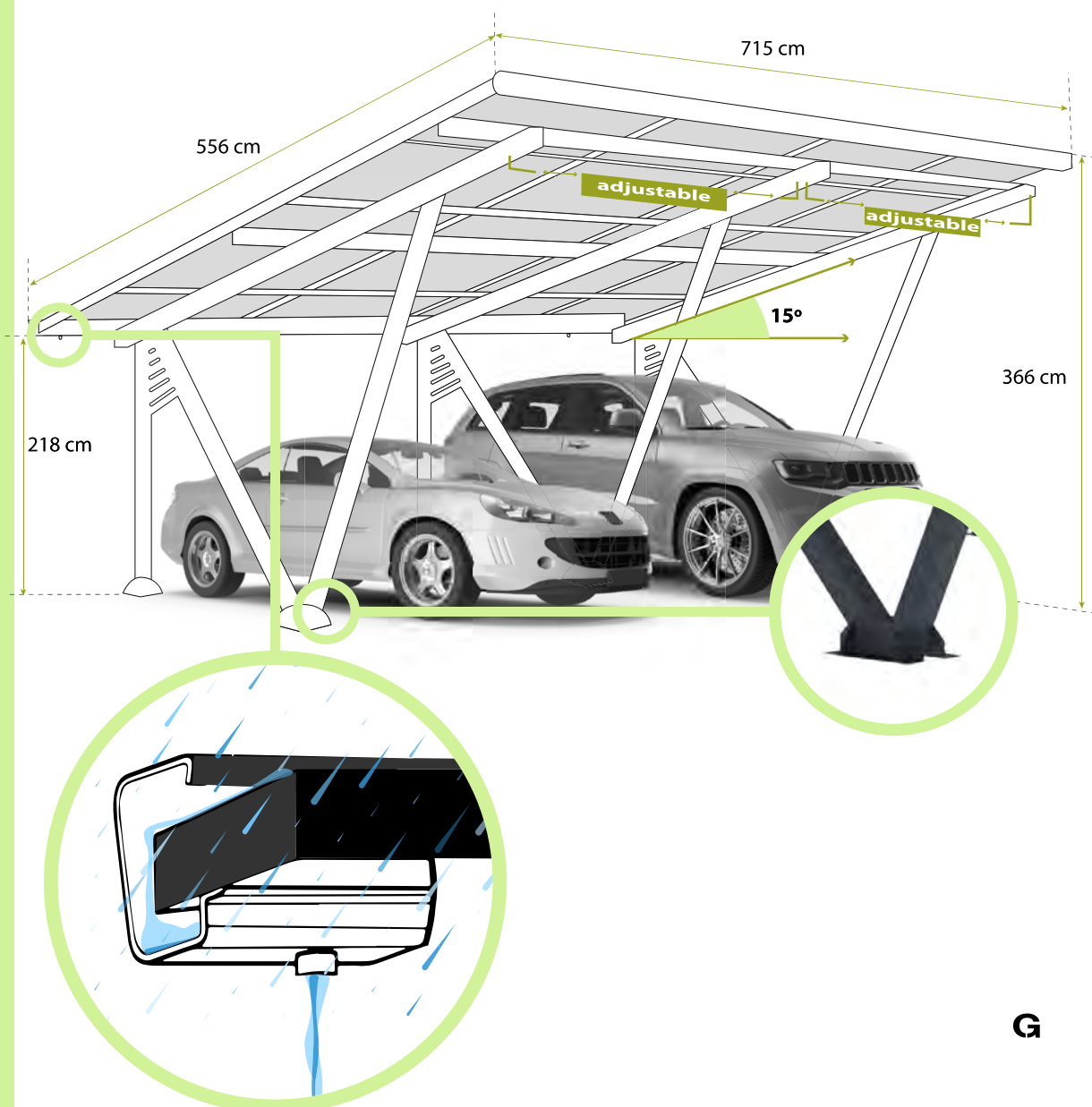
6 REINFORCEMENTS



THICKNESS
SOLAR PANEL

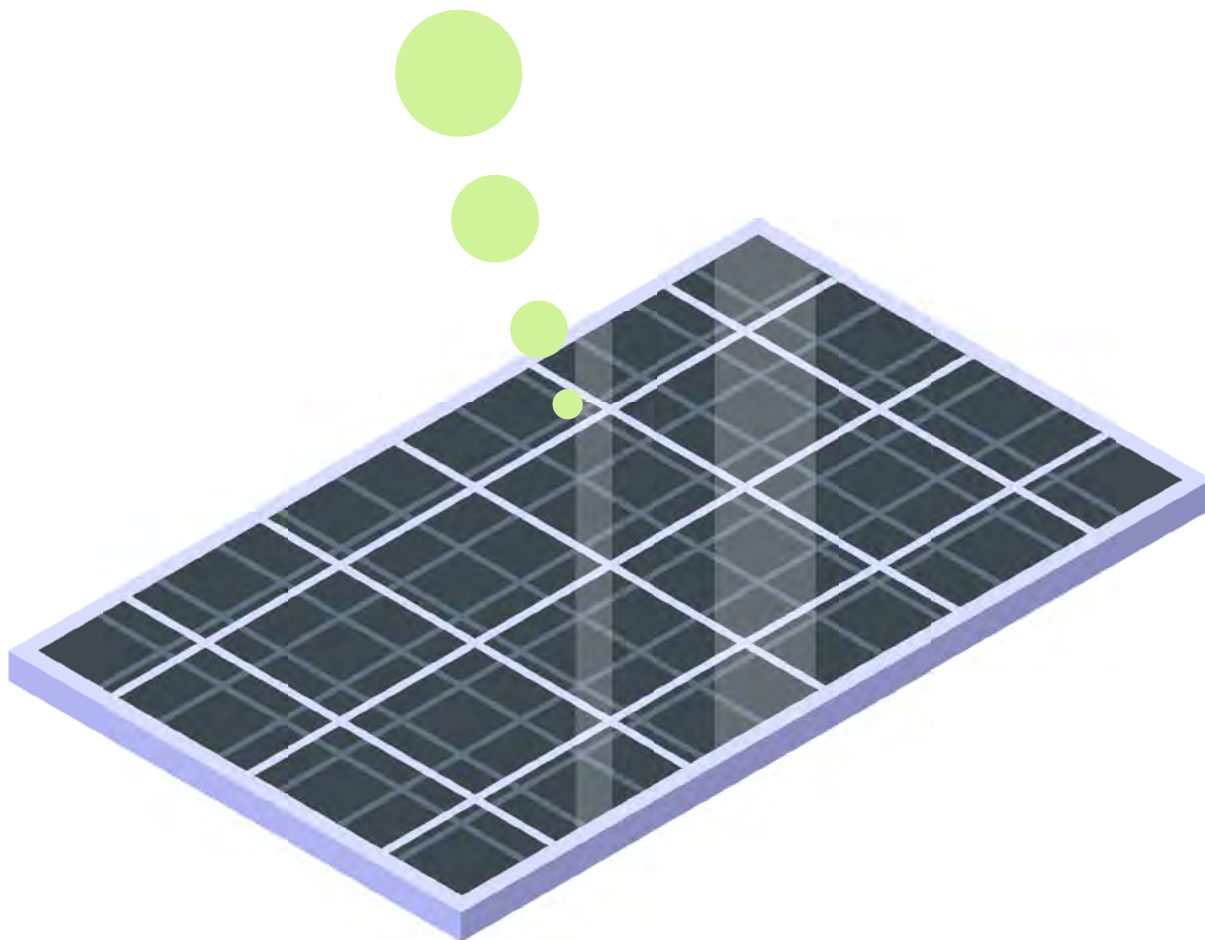


RESISTANT



1 Panel = 1.85 kWh/day

20 SOLAR ROOF PEARSON
Panel = 37 kWh/day



HOW MANY kWh DOES JUST ONE OF THESE SOLAR PANELS PRODUCE PER DAY?

Let's imagine that we enjoy 5 hours of sunlight every day. If we take into account that our solar panels have an efficiency of 90%, this is the amount of energy that a single panel would produce per day.

$$\frac{410W \times 0.90 \times 5}{1000} = 1,85 \text{ kWh/día}$$

In summary, 1 solar panel of 410wp provides 1.85 kWh of energy per day.

If the same conditions were maintained throughout the month, the production of this solar panel would be 55.5 kWh; and per year 675.25 kWh.

SO HOW MUCH ENERGY WILL THE ENTIRE PV SYSTEM PRODUCE?

As simple as multiplying the power of 1 panel by the number of panels my canopy has.

The PEARSON solar canopy has 20 panels, so 1.85kWh/day (output of 1 panel) x 20 panels = 37kWh/day.

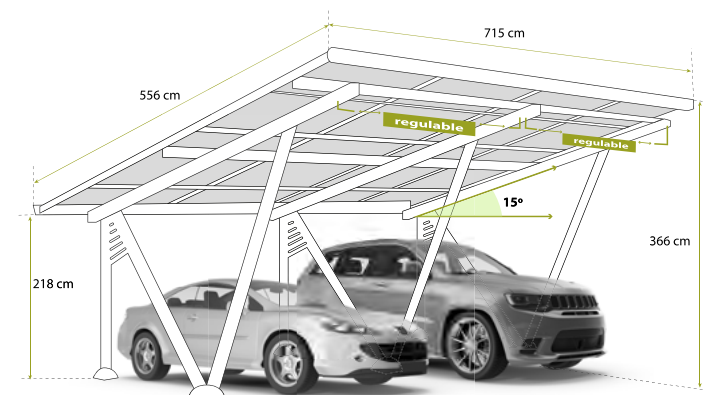
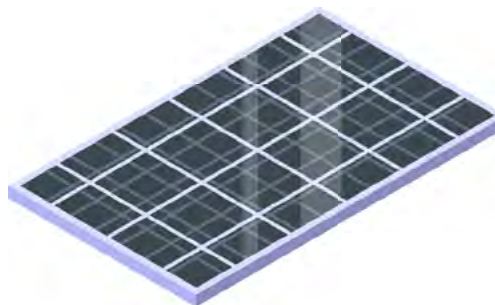
This 37kWh/day, would convert into 1,110kWh per month; and 13,505kWh per year.

**These calculations are an estimate as weather conditions are not always the same.*

TECHNICAL DATA

SOLAR CARPORT PEARSON

 Inverter and batteries are optional



LOGISTICS - N° PACKAGES 4



B1

Measurements:
371 x 94 x 34 cm
Weight:
245 kg



B2

Measurements:
506,5 x 27,5 x 18,5 cm
Weight:
49 kg



B3

Measurements:
573,5 x 29 x 14,5 cm
Weight:
57 kg



B4

Measurements:
179 x 93 x 127,5 cm
Weight:
510 kg

ELECTRICAL CHARACTERISTICS

Type of panel:	Solar
Panel measure:	172,5 x 113,4 x 3 cm
Current MPP*Impp:	12,88 A
Current MPP*Umpp:	31,83 V
No-load voltage*Uoc:	37,98 V

ELECTRICAL CHARACTERISTICS SOLAR PANEL

Power per panel:	410 W
Connector:	MC4
Security class:	Class II
Cable:	1200 mm

SPECIFICATIONS

Panel material:	Black anodised aluminium
Weight per panel:	20,5 kg
Panel thickness:	30 mm
N° panels:	20
Cell type:	182
N° cells:	54*2
Junction box:	IP68

CHARACTERISTICS STRUCTURE

Structural material:	Reinforced aluminium
Color:	Anthracite
Product size:	715 x 556 x 366 cm
Total product weight:	690 kg
Max. weight supported:	100 kg/m2
Wind resistance:	30 m/s
Pole dimensions:	10 x 10 cm
Weight of poles:	9 kg
Roof pitch:	15°

OTHER CHARACTERISTICS:

Waterproof roof
Water drainage
Gutter included
Adjustable carport width
Anti UV
Anti oxide

SOLAR CARPORT
BECQUEREL I



WHAT IS THE STRUCTURE OF BECQUEREL I SOLAR CARPORTS LIKE?

- **Solar panels.** Integrates 12 solar panels.
- **Premium material.** It is made of 2.5 mm thick aluminium. This material is not only lightweight (thus facilitating installation), but is also highly resistant to corrosion.
- **Sturdy legs.** The 10 x 10 cm legs form a solid and stable base, perfect for supporting heavy loads, including the force of the wind and the weight of possible accumulations of snow up to 120 kg/m². They are equipped with a ground fixing system. Screws are included. Gutters and drainage pipes. Gutters and downpipes are provided to facilitate rainwater drainage and extend the life of the roof.
- **Roof with 20 degrees of inclination,** which also has an avant-garde design, which will add an elegant touch to the outdoor space of your home.
- **Durability and minimal maintenance.** Thanks to the high quality aluminium, our canopy will not rust or warp over time. It is resistant to corrosion and UV rays. This significantly reduces maintenance costs and ensures a flawless appearance for years to come.
- **Easy to install.** Although robust, this structure is easy to assemble, with clear instructions and components designed for hassle-free assembly.



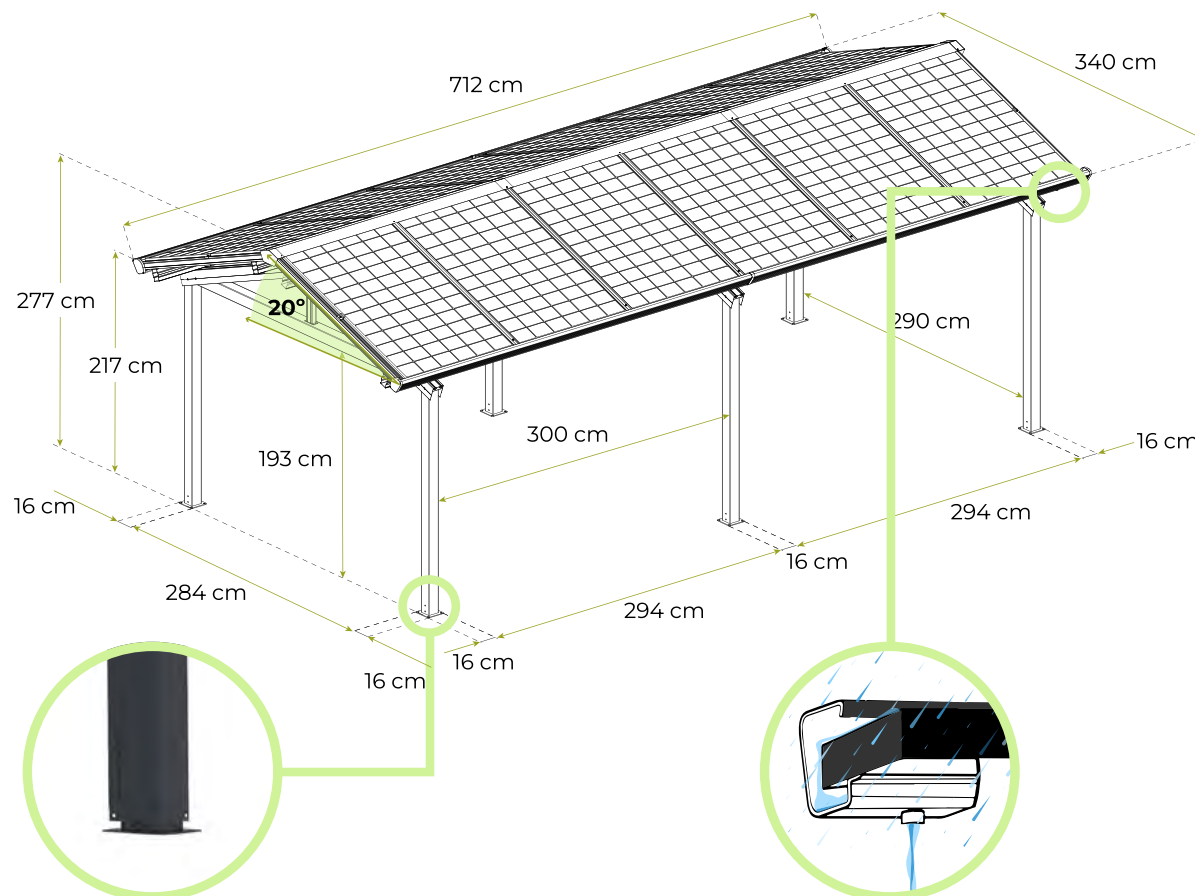
POWER



THICKNESS
SOLAR PANEL

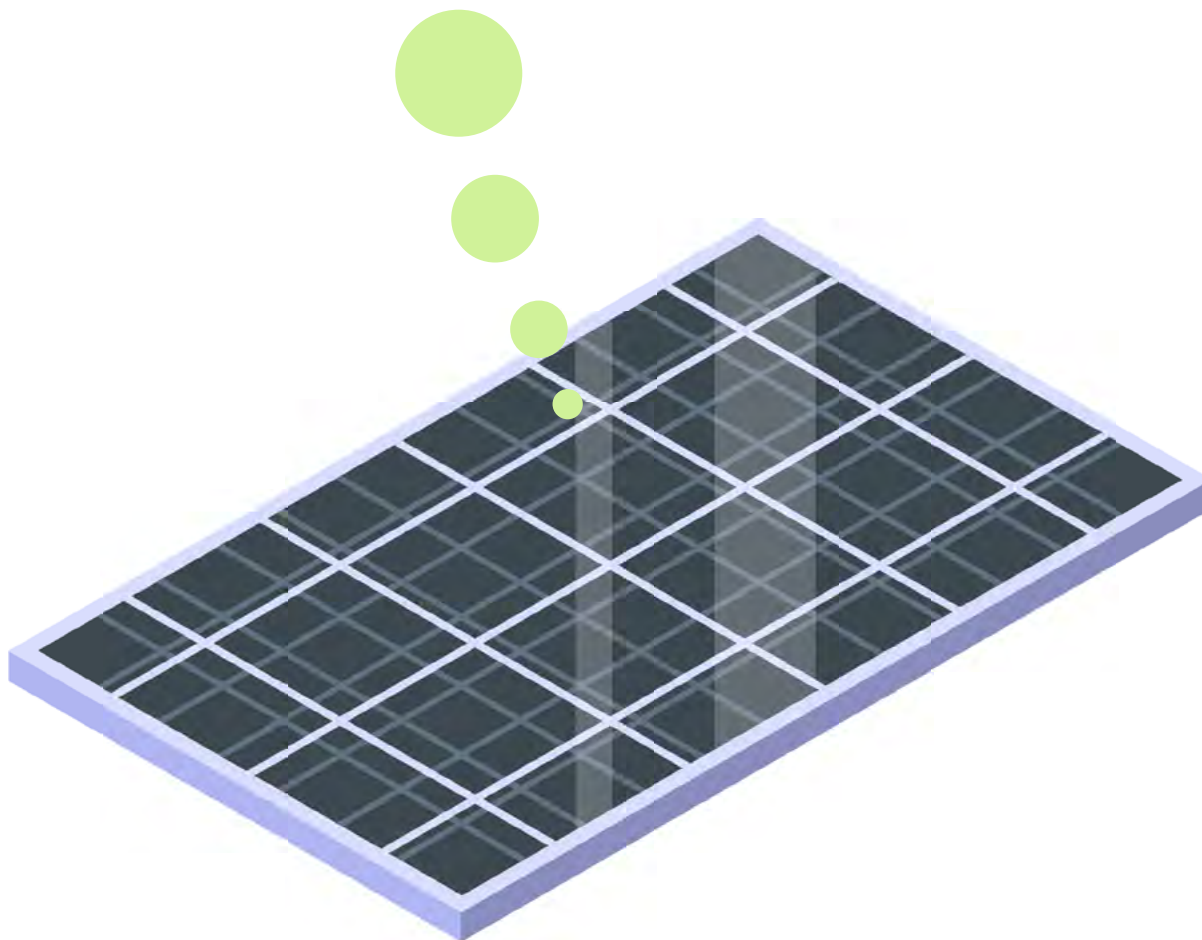


RESISTANT



1 Panel = 1.85 kWh/day

12 SOLAR ROOF BECQUEREL I
Panel = 22,20 kWh/day



HOW MANY kWh DOES JUST ONE OF THESE SOLAR PANELS PRODUCE PER DAY?

Let's imagine that we enjoy 5 hours of sunlight every day. If we take into account that our solar panels have an efficiency of 90%, this is the amount of energy that a single panel would produce per day.

$$\frac{410W \times 0.90 \times 5}{1000} = 1,85 \text{ kWh/day}$$

In summary, 1 solar panel of 410wp provides 1.85 kWh of energy per day.

If the same conditions were maintained throughout the month, the production of this solar panel would be 55.5 kWh; and per year 675.25 kWh.

SO HOW MUCH ENERGY WILL THE ENTIRE PV SYSTEM PRODUCE?

As simple as multiplying the power of 1 panel by the number of panels my canopy has.

The BECQUEREL I solar canopy has 12 panels, therefore, 1.85kWh/day (production of 1 panel) x 12 panels = 22.20kWh/day.

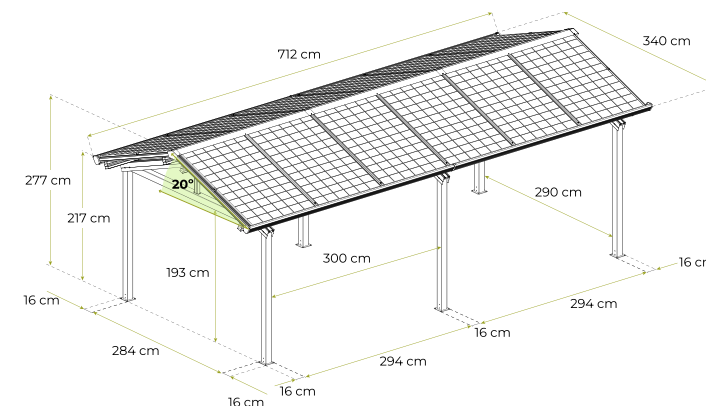
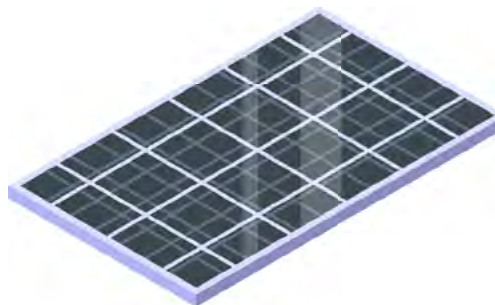
This 22.20kWh/day would become 666kWh per month; and 8,103kWh per year.

**These calculations are an estimate as weather conditions are not always the same.*

TECHNICAL DATA

SOLAR CARPORT BECQUEREL I

 Inverter and batteries are optional



LOGISTICS - N° PACKAGES 2



B1

Measures:

369,5 x 82,5 x 46 cm

Weight:

200 kg



B2

Measures:

179 x 68 x 127,5 cm

Weight:

252 kg

ELECTRICAL CHARACTERISTICS

Type of panel:	Solar
Panel measure:	172,5 x 113,4 x 3 cm
Current MPP*Impp:	12,88 A
Current MPP*Umpp:	31,83 V
No-load voltage*Uoc:	37,98 V

ELECTRICAL CHARACTERISTICS SOLAR PANEL

Power per panel:	410 W
Connector:	MC4
Security class:	Class II
Cable:	1200 mm

SPECIFICATIONS

Panel material:	Black anodised aluminium
Weight per panel:	20,5 kg
Panel thickness:	30 mm
N° panels:	12
Cell type:	182
N° cells:	54*2
Junction box:	IP68

STRUCTURE CHARACTERISTICS

Structural material:	Reinforced aluminium
Color:	Anthracite
Product size:	340 x 712 x 277 cm
Total product weight:	452 kg
Max. weight supported	120 kg/m2
Wind resistance:	30 m/s
Pole dimensions:	10 x 10 cm
Roof pitch:	20°

OTHER CHARACTERISTICS:

Waterproof roof
Water drainage
Gutter included
Anti UV
Anti oxide

SOLAR CARPORT
BECQUEREL II



WHAT ARE BECQUEREL II CARPORT SOLAR LIKE?

- **Solar panels.** Integrates 10 solar panels.
- **Premium material.** It is made of 2.5 mm thick aluminium. This material is not only lightweight (thus facilitating installation), but also highly resistant to corrosion.
- **Sturdy legs.** Its 10 x 10 cm legs form a solid and stable base, perfect for supporting significant loads, including the force of the wind and the weight of possible accumulations of snow up to 120 kg/m². They are equipped with a ground fixing system. Screws are included.
- **Gutters and downpipes.** It has gutters and drainage pipes to facilitate the drainage of rainwater and thus extend its useful life.
- **Adjustable roof pitch from 5 to 30 degrees by adjusting the posts,** with an avant-garde design, which will add an elegant touch to the outdoor space of your home.
- **Durability and minimum maintenance.** Thanks to the high quality aluminium, our canopy will not rust or warp over time. It is resistant to corrosion and UV rays. This significantly reduces maintenance costs and ensures a flawless appearance for years to come.
- **Easy to install.** Although robust, this structure is easy to assemble, with clear instructions and components designed for hassle-free assembly.



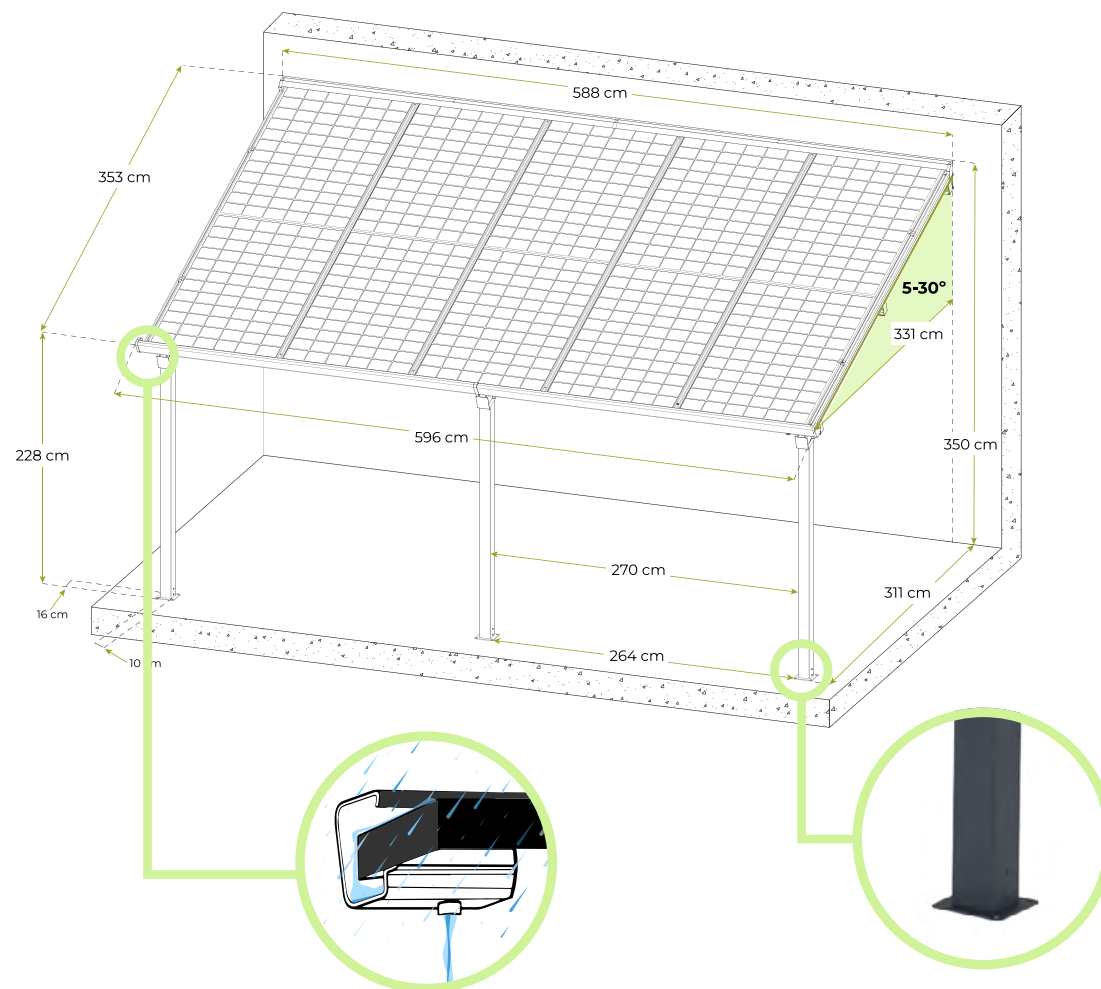
POWER



THICKNESS
SOLAR PANEL

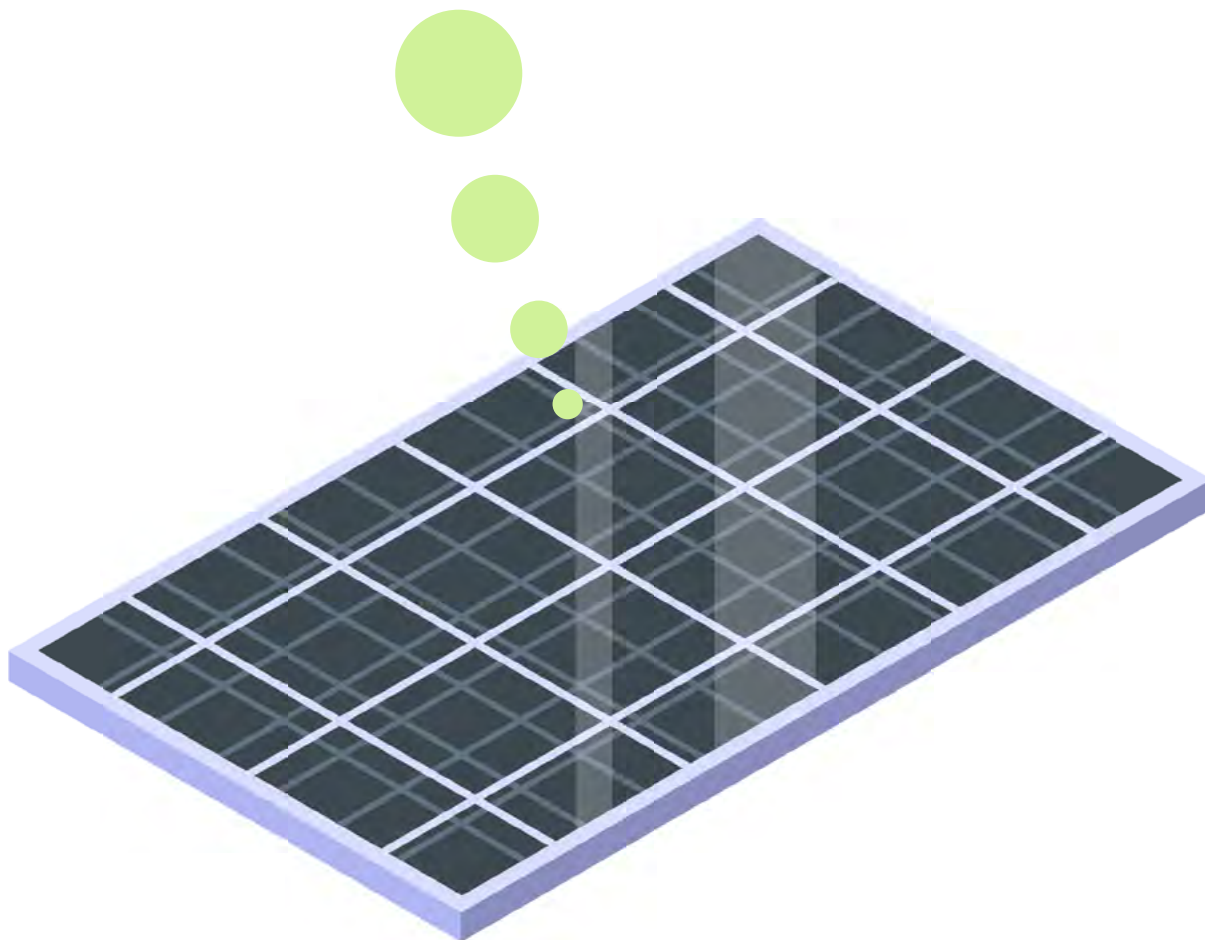


RESISTANT



1 Panel = 1.85 kWh/day

10 SOLAR ROOF BECQUEREL II
Panel = 18,50 kWh/day



HOW MANY kWh DOES JUST ONE OF THESE SOLAR PANELS PRODUCE PER DAY?

Let's imagine that we enjoy 5 hours of sunlight every day. If we take into account that our solar panels have an efficiency of 90%, this is the amount of energy that a single panel would produce per day.

$$\frac{410W \times 0.90 \times 5}{1000} = 1,85 \text{ kWh/day}$$

In summary, 1 solar panel of 410wp provides 1.85 kWh of energy per day.

If the same conditions were maintained throughout the month, the production of this solar panel would be 55.5 kWh; and per year 675.25 kWh.

SO HOW MUCH ENERGY WILL THE ENTIRE PV SYSTEM PRODUCE?

As simple as multiplying the power of 1 panel by the number of panels my canopy has.

The BECQUEREL II solar canopy has 10 panels, therefore, 1.85 kWh/day (production of 1 panel) x 10 panels = 18.5 kWh/day.

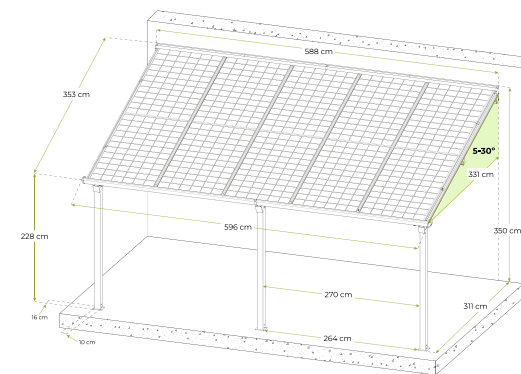
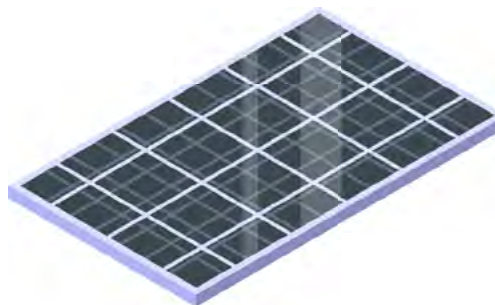
These 18.5 kWh/day, would become 555 kWh per month; and 6,752.5 kWh per year.

**These calculations are an estimate as weather conditions are not always the same.*

TECHNICAL DATA

SOLAR CARPORT BECQUEREL II

 Inverter and batteries are optional



LOGISTICS - N° PACKAGES 2



B1

Measures:
350,5 x 69,5 x 35 cm
Weight:
120 kg



B2

Measures:
179 x 62 x 127,5 cm
Weight:
285 kg

ELECTRICAL CHARACTERISTICS

Type of panel:	Solar
Panel measure:	172,5 x 113,4 x 3 cm
Current MPP*Imp:	12,88 A
Current MPP*Ump:	31,83 V
No-load voltage*Uoc:	37,98 V

ELECTRICAL CHARACTERISTICS SOLAR PANEL

Power per panel:	410 W
ConNector:	MC4
Security class:	Class II
Cable:	1200 mm

SPECIFICATIONS

Material panes:	Black anodised aluminium
Weight per panel:	20,5 kg
Panel thickness:	30 mm
N° panels:	10
Cell type:	182
N° cells:	54*2
Junction box:	IP68

CHARACTERISTICS STRUCTURE

Structural material:	Reinforced aluminium
Color:	Anthracite
Product size:	331 x 596 x 350 cm
Total product weight:	330 kg
Max. weight supported	120 kg/m2
Wind resistance:	30 m/s
Pole dimensions:	10 x 10 cm
Roof pitch:	5-30°

OTHER CHARACTERISTICS:

Waterproof roof
Water drainage
Gutter included
Adjustable carport width
Anti UV
Anti oxide



FREQUENTLY ASKED QUESTIONS

DO YOU WANT TO ADD A CHARGING STATION FOR YOUR ELECTRIC VEHICLE TO YOUR PHOTOVOLTAIC CANOPY? WE TELL YOU HOW

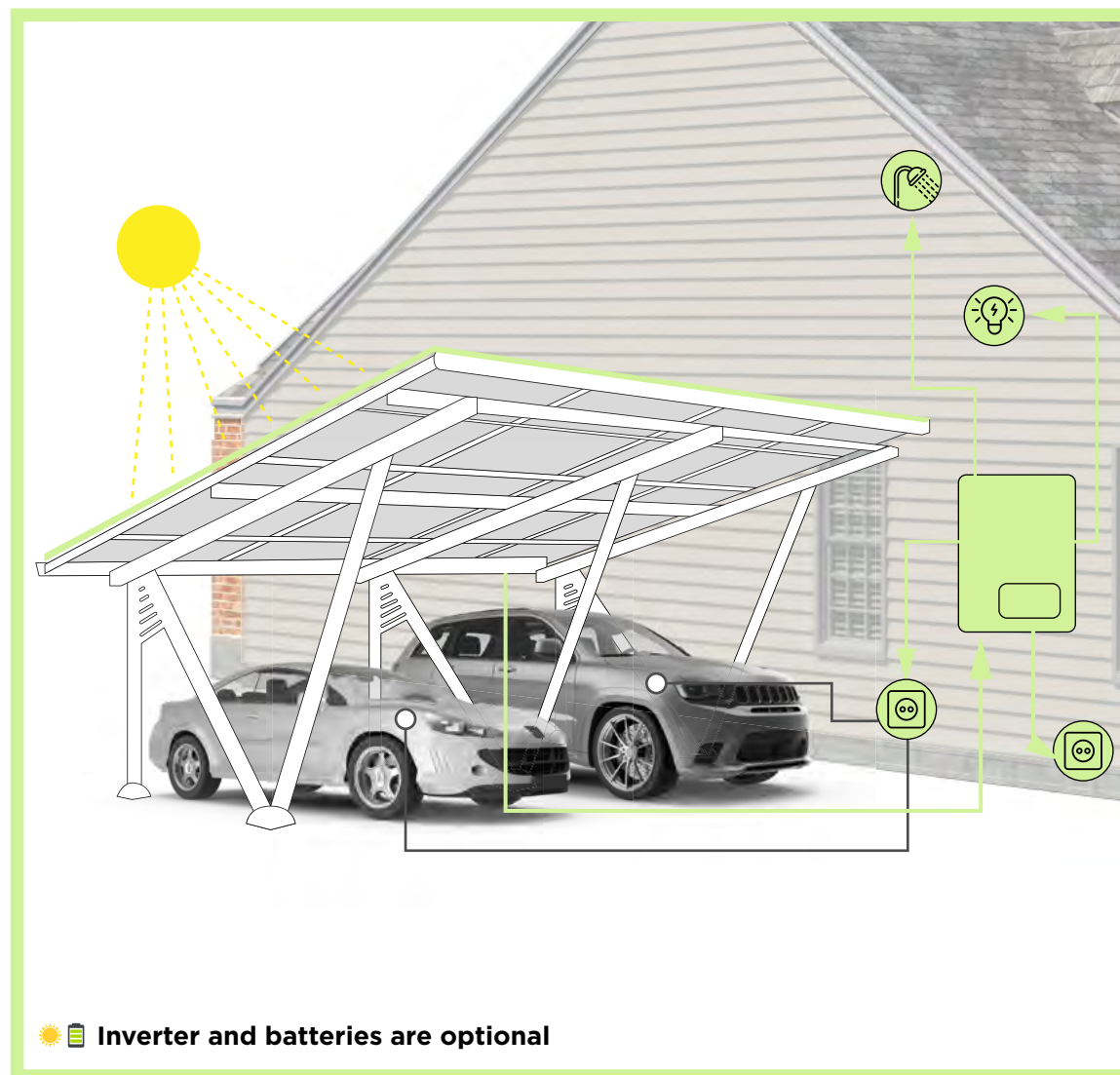
Para unirse a esta corriente de energía verde, vas a necesitar hacer varias cosas:

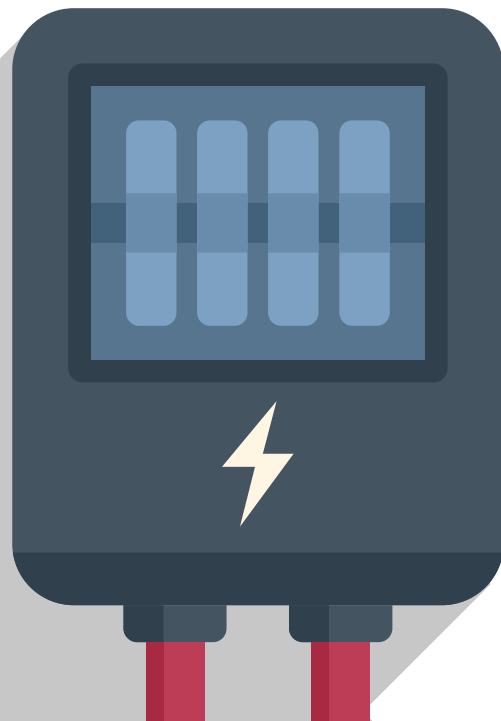
- Start by assessing your charging needs. Make sure your electrical installation is in perfect condition.
- Obtain the necessary permits.
- **You will need a solar inverter and batteries. These parts are not included with our canopies.** Have the installation carried out by a certified electrician.
- Plan your load management and ensure regular maintenance to keep everything running smoothly.
- Check local regulations to comply with current standards.

WHAT SHOULD BE THE POWER OF YOUR INVERTER?

The inverter power must be compatible with the maximum power generated by your solar panels and exceed it by 10-20%.

- **PEARSON Carport:** Power of panels: 8.20 kWh (410w*20). You will need an inverter between 10 and 11 kWh.
- **BECQUEREL I Carport:** Power of panels: 4.92 kWh (410w*12). You will need an inverter between 6 and 8 kWh.
- **BECQUEREL II Carport:** Power of panels: 4,10 kWh (410w*10). You will need an inverter between 5 and 7 kWh.





WHAT TYPE OF INVERTER DO YOU NEED?

1. On-Grid Inverters (Grid-Connected)

These inverters are designed for grid-connected systems. They are ideal if you want to sell excess energy back to the grid or if you do not need energy storage.

Advantages: higher efficiency, lower initial cost, no need for batteries.

2. Off-Grid Inverters (Stand-alone)

These inverters are used in off-grid systems. They require batteries to store the energy generated.

Advantages: independence from the electricity grid, ideal for remote areas.

3. Hybrid Inverters

They combine the characteristics of on-grid and off-grid inverters. They can be grid-connected and battery-powered.

Advantages: flexibility to operate with or without network connection, storage capacity.

Selecting the right type of inverter and deciding whether you need batteries and accumulators depends on your specific energy needs and location.

Evaluate your energy consumption, consider the stability of the grid in your area and choose quality components to ensure the efficiency and durability of your PV system.

HOW DO YOU CLEAN YOUR PHOTOVOLTAIC PANELS? HOW OFTEN?

Your safety comes first. That is why it is very important to disconnect the installation from both direct and alternating current before carrying out any cleaning work.

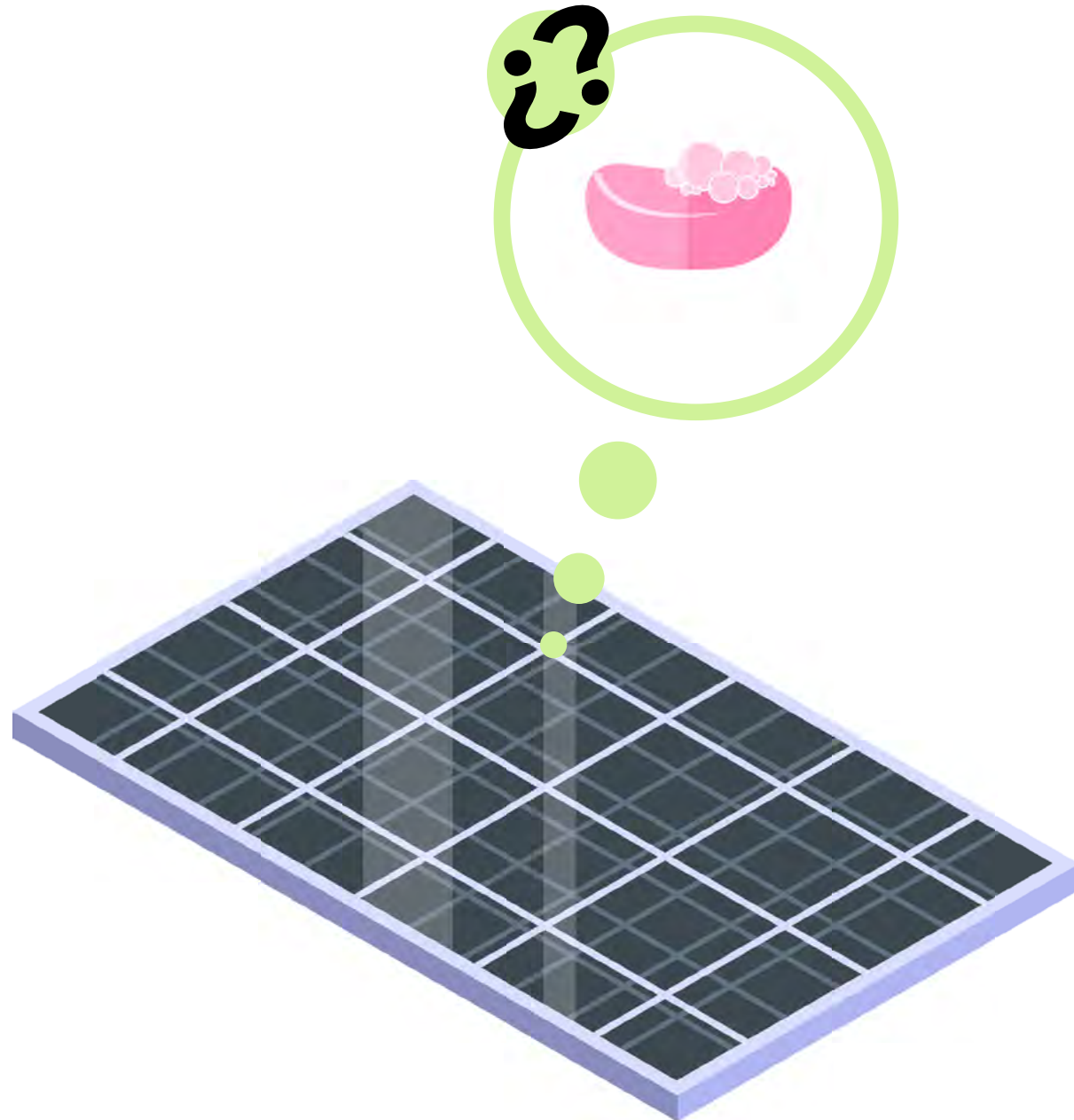
If you have to climb a ladder, take appropriate safety precautions.

Cleaning is simple, you can clean your panels with a hose, a soapy solution, if necessary to remove bird droppings or other solid debris, and a soft bristle brush.

Caution: do not use pressure washers, strong bristle brushes or scratching tools as they may damage the panel.

How often? Once a year is sufficient, although it will depend on how much dirt they accumulate.

It is advisable to avoid heat stress, so it is advisable to carry out maintenance first thing in the morning and during the spring months.



Gardiun TECHNO

*Do you want to start using **solar energy**? Do you already have an installation on your roof and want to produce more? Or do you simply want to save on your electricity bill every month and **be part of the renewable energy revolution**?*

Whatever the reason, starting to use clean and cheaper energy is always a good decision.

Need help, want more information? Get in touch with us.



Official Distributor Gardiun®

www.kovyx.com/en