

# DOSSIER SOLAR CARPORT

—  
2023

EN

by METASOL

In Metasol we have developed a system of parking carports with a **design intended** to **optimize the cost of the material**, a **simple assembly** and obtain a **long durability**.

# SOLAR CARPORT

## ✓ MODULAR AND ADAPTABLE DESIGN

The design of our carports allows us to adapt to any need of our customers in a simple way. Our standard designs cover a wide range of possibilities but we can customize both heights and roof angles and dimensions of the floor plan. Our technical department will study each solution and provide a supporting calculation report.



## ✓ EASY TO ASSEMBLY

CARPORT solutions are installed very easily, without the need for welding. The entire structure is bolted and no heavy lifting machinery is required for assembly.

In addition, they can be fixed to concrete screed (\*) without the need to make specific foundations.

(\*) Our technical department will make recommendations on the minimum constructive characteristics of the concrete screed.

## ✓ SOLAR ROOF

The roof of the carport is made of ribbed steel sheet to guarantee the impermeability.

In addition, this cladding is the perfect support for the integration of solar panels through the well-known commercial clamp systems and mounting accessories.

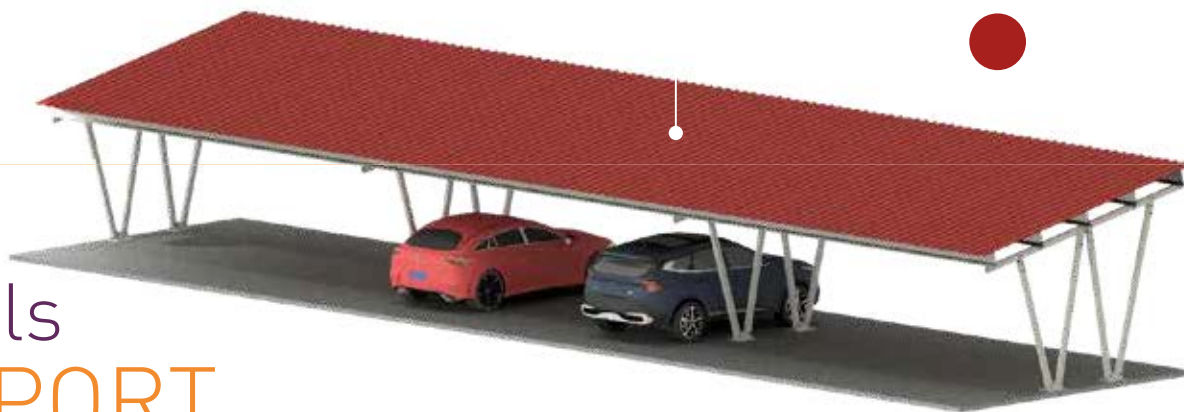


## ✓ FLAT - PACKAGING

Packaging is a factor we have taken into account in our design. This allows us to offer low transport costs.

We can transport up to 1.400 m<sup>2</sup> of carports in a single truck.



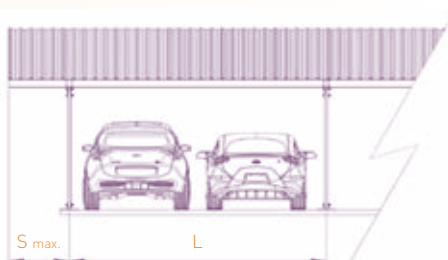
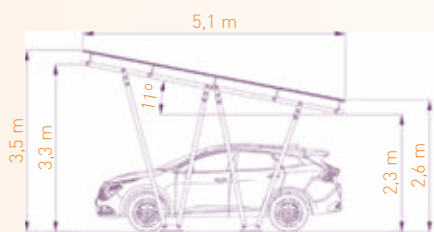


# Models CARPORT

We have developed 3 standard models to meet the different needs of our customers, but we can **customize your project** easily.

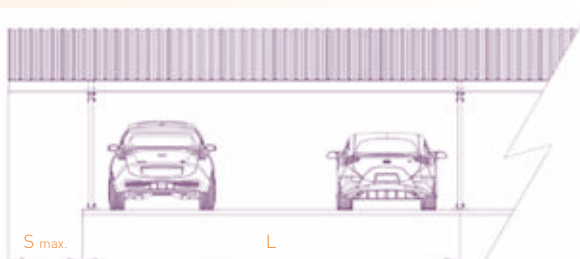
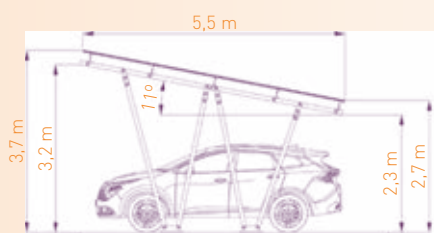
MODEL	L (m)	S maximum (m)
1W2X	5	1
1W3X	7,5	1,5
2W3X	7,5	1,5

## 1W2X 2 Cars carport / 5m

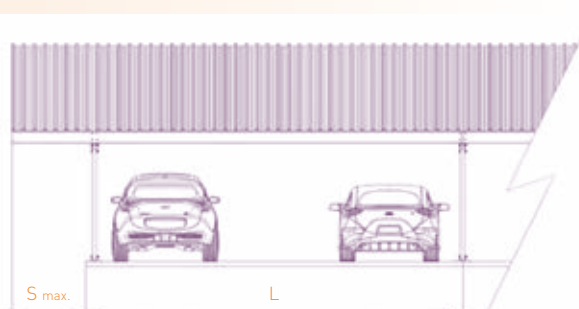
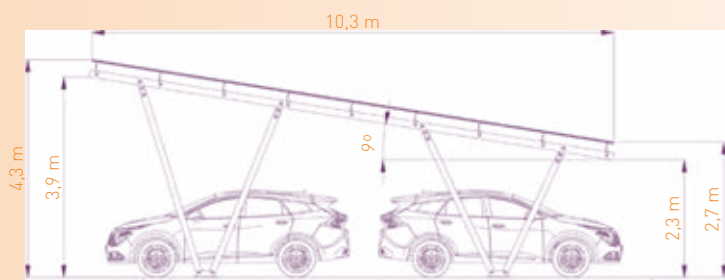


Perfect integration  
of solar panels through  
commercial clamp  
systems and mounting  
accessories.

## 1W3X 3 Cars carport / 7,5m



## 2W3X Double 3 Cars carport / 7,5m





## ✓ DURABILITY

The materials used and the surface treatments provide to our carports high strength and durability.

The **main structure** is made with steel tubes and folded steel sheets both hot deep galvanized. The minimum guaranteed coating thickness is 70 microns, which provides a durability of more than 40 years in rural environments.

**Steel purlins** are manufactured from cold-shaped steel sheets with a Z275 galvanized coating according to EN 10346.

The **roof cladding** has a double protection; a Z275 galvanized and a 25 microns polyester powder coating.

The **screws** used of 8.8 quality is also protected by a zinc plated coating.

## ✓ DESIGN AND MECHANICAL RESISTANCE

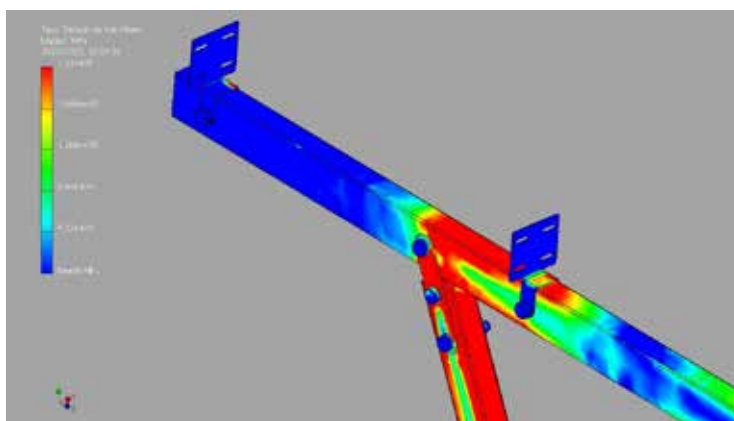
The design of CARPORT provides a great static balance and this allows an optimal sizing of its structure.

It has been designed according to the following standards:

- EN 1990 ANB: 2021, CTE-DB-SE: 2019.
- Construction steel: CTE-DB-SE-A-2007 EAE: 2011.

The loads considered for standard designs are:

- Load relative to the weight of solar panels and their mounting system: 0,15 kN/m<sup>2</sup>.
- Snow load: 0,4 kN/m<sup>2</sup> according to EN1991-1-3: 2018, CTE-DB-SE-AE: 2009.
- Wind load:  $q_b=0,42 \text{ kN/m}^2$ ,  $c_e=1,6$  according to EN 1991-1-4: 2018, CTE-DB-SE-AE: 2009.



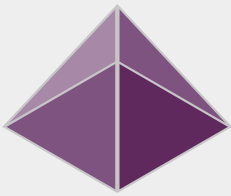
## ✓ QUALITY AND CE MARKING

Each carport is delivered with its corresponding calculation report and CE declaration of conformity.



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**CARPORT**  
by METASOL



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## WE ARE METASOL

Company specializing in the manufacture of boiler making products, industrial equipment, on demand machinery and metallic structures.

Our scope of work goes beyond the manufacture. We offer a **complete technical advice service, engineering, solutions development and after sales service.**

We are a **flexible and versatile** company which is capable of adapting to an increasingly more dynamic and more technologically advanced market.

**We provide customized solutions** to our clients' problems in the field of industrial design and mechanical engineering.

## MANUFACTURE

### STRUCTURAL STEEL

We manufacture, assemble and erect steel structures for civil, residential and industrial constructions and for solar energy installations.

### BOILERMAKING

We can manufacture any boilermaking piece in carbon or stainless steel with our advanced tooling and production techniques: CNC plasma and oxy-cutting bench, pressbending machine, plate shears, roller vending machines, MIG/MAG/TIG welding, etc.

### BOILERMAKING

METASOL designs and develops **turnkey projects** in industrial machinery. We always maintain the highest standards in quality and service in our custom machinery.

We have **state-of-the-art production** capacities to manufacture economical, quality shopbuilt steel for all types of structures and boilermaking elements **on time and to specifications.**



## QUALITY

At METASOL we are **committed to excellence** and customer satisfaction in everything we do.

In keeping with our high service standards, our **Quality Control Department** verifies all our products before delivery, while also encouraging **continuous improvement** within our staff and projects. METASOL has also implemented a Material Quality Tracking System to control all materials involved in our projects.

**CVR**  
**PORT**  
by METASOL

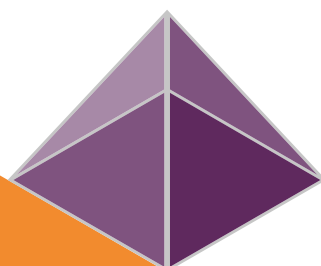
# We are your partner towards **success.**



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