

Park@Sol

The modular carport system

- Swift and unproblematic mounting
- Optimum area utilization
- Suitable for all types of modules
- Customized foundation options to meet customers requests
- Profiles made of aluminium, steel construction on request
- Complete structural analysis for each individual project



With the Schletter carport, you opt for a robust and cost-efficient solution to protect vehicles against weather and at the same time use free energy from the sun.

Only a few years ago, the feed-in tariff was the most important criterion for the set-up of a solar plant. Nowadays, another aspect is increasingly important: the development of electric mobility. A solar carport is therefore the perfect solution to serve as an "EV charging station".

Our **Park@Sol system** is a logical further development of the Schletter ground-mounted FS solar systems. The FS ground-mounted systems have already been used for numerous large projects all over the world. Our experience is not only specific to the area of individual structural optimization for the diversity of regional snow and wind conditions, but lies particularly in the fastening of all module types.

Unit-assembly system for the right solution

There are several designs to get the best possible and most economical layout on the area that is available. Each plant is individually configured to the customer's requirements and to the requested basic design, taking the following parameters into account:

- Module type and design
- Plant size
- Soil conditions
- Distances between supports / apportioning of the parking area
- **Optional:** Design adaptations



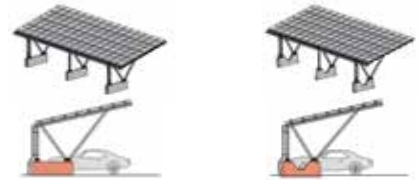
We have long-year experience with car port systems of very different sizes - no matter if you want a carport for 1 vehicle or for hundreds of vehicles, with a power of 2 kW or 6 MW.

*The terms of guarantee can be referenced at www.schletter.de/AGB_en.

Different designs

- Unit-assembly-system in any desired size
- Steel carport as individual or row carports in any desired size
- Concrete foundation
- Rammed (pile-driven) foundations

B1 1-row vehicle arrangement
(max. depth 6.0 m)



B2 2-row arrangement of vehicles
(max. depth 13.5 m)

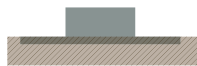


B3 2-row arrangement of vehicles
(max. depth 13.5 m)



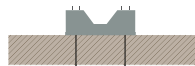
The foundation

Carports need a robust and stable foundation. Only this way it is possible to achieve structural safety, long operating life and better weather protection. We offer the following options:



Concrete foundation

- The foundation is made of cast concrete
- Concrete foundation as impact protection
- Unimpeded door opening
- Central foundation
- The economical solution for small plants



Micro-pile foundation

- Small pre-cast concrete foundations
- Firm anchoring using micro-piles
- Only minimal construction works on the parking lot surface required
- Suitable for almost any type of subsoil
- starting from 200 kW thin-film thin-film modules
- Starting from 300 kW crystalline modules
- The unrivalled solution for large plants



Rammed (pile-driven) foundations


- Concrete ground collar as vehicle impact protection
- Height-optimized ground collar for unimpeded opening of doors

R1 1-row vehicle arrangement

Park@Sol Design

More and more solar carports are used as "solar power stations" in commercial and municipal electric mobility infrastructures. In such cases, aspects like design and corporate identity play an important role. On request, we develop a custom look for your carport which reflects your own corporate design and effectively communicates a unified company image to the outside world.

Technical data (aluminium)*

Material	Fastening elements, screws: Stainless steel 1.4301 Profiles aluminium MgSi05 /EN AW 6063, EN AW 6005 Pile-driven foundation posts: Steel, hot-dip galvanized <ul style="list-style-type: none"> • Long operation life, high residual value, no disposal costs • Easy plant-repowering thanks to modular design
Logistical details	<ul style="list-style-type: none"> • Quick and easy mounting • Maximum level of pre-fabrication • Optimized delivery to the construction site
Engineering	<ul style="list-style-type: none"> • Cost-optimized complete construction based on structural optimization • For framed and unframed modules • Minimum ground sealing <p>Please note: Depending on the design, the risk of snow masses sliding from the roof must be considered during the planning phase. Accessory parts to reduce the risk of snow sliding off are available on request. However, possible risks of module wiring depending on the alignment need to be taken into consideration!</p>
Accessories	<ul style="list-style-type: none"> • Cable channels, cable ducts • Lightning protection system (FSProtect system) • Components for internal potential equalization • Clamps for different module types • Fastening systems for large-surface laminate modules (System OptiBond)
Structural analysis	<ul style="list-style-type: none"> • Individual structural analysis based on a geological survey (for assembly designs using driven piles) • Individual systems structural analysis based on regional load values • Load assumptions according to DIN EN 1990 (Eurocode 0), DIN EN 1991 (Eurocode 1), DIN EN 1993 (Eurocode 3), DIN EN 1999 (Eurocode 9) and further or relevant country-specific standards • Optimized profile geometries with highly efficient material utilization • Structural verification of all construction components based on FEM-calculation • Vibration simulation available on request, for testing wind-load • Earthquake simulation optional 
Delivery and services	<ul style="list-style-type: none"> • Ground survey and structural analysis of the soil • Structural analysis of the individual rack based on regional data • Pile driving of the foundations and delivery of the complete mounting material • Optional: Structure • Optional: Complete module assembly
Lightning protection, earthing, potential equalization	<ul style="list-style-type: none"> • Enhancement with external lightning protection systems possible • Components for the internal potential equalization • Potential equalization certified acc. to VDE 0100, part 712

Lightning protection and potential equalization - important notes

- Lightning protection is not mandatory but recommended by Schletter!
- Anodization or powder-coating of the rack's interior connections does not negatively impact the load-bearing capacity **with regard to lightning protection** !
- Fundamentally, in the case of anodized or powder-coating carports, all conductive components of the carport assembly, which do not come into contact with active electrical components, are to be incorporated into the potential equalization. We recommend that all individual module-bearing purlins should be conductively interconnected which makes it possible to connect every module block to the grounding system with low impedance. Similarly, all supports, clamps, etc. used for cable routing, or which come into contact with live components, must be earthed. Overall responsibility for the earthing procedures and for the inspection of protective measures **prior to operation** lies with the designated electrical engineering company.

Further information at www.schletter.eu

* Technical data for the steel design can be obtained through the product sheet steel carport