

# SLIM IN DESIGN - BIG IN FUNCTIONALITY

Solar carport in noble wood craft as single or double version.





## Floating elegance:

Solar carport on timber arcades.

This solar carport impresses with maximum performance in an appealing floating design. It fulfils all technical and aesthetic requirements which owners of electric or hybrid cars may expect.

In cooperation with our German partner Zwick-Holzbau, our powerful solar carport excels in natural design and highest German quality.

### Our carport provides:

- Shingled module technology with 2 x 5 mm double-glass elements
- Frameless modules to prevent dirt accumulations
- Optimized modular transparency, free glass overhangs and floating design
- Concealed cable routing
- Design-integrated module inverter, no separate control box required
- All components 100% **Made in Germany**
- Optionally available with battery storage system and central inverter / power optimizer
- Perfect synthesis of design and functionality



## Captivating functionality:

Skillfully designed down to the finest detail.

The great module transparency and the discerning wood craft construction complement the carport's floating appearance, what makes this carport setting a highlight in any environment not only technically but also aesthetically.

The single car version has a span width of about 3m and the double version a width of about 6m. This ensures easy access for each car size.

The semi-transparent solar modules made of high-performance solar cells ensure for an optimum solar yield on the surface available. The installed module power contributes significantly to generate green electricity for the operation of an electric vehicle.

The shingled installation of our frameless solar modules prevents dirt accumulations on the surface which may cause a yield loss of up to 20% in the long term.

### Technical Details:

- Length: 5,80 m
- Width:
  - Single Carport**  
3.5 m covered area by the overlapping solar glass-glass elements; 2.76 m inside dimension between the posts
  - Double Carport**  
6.75 m covered area by the overlapping glass-glass solar element; 6 m inside dimensions between piles
- Height: 2.1 m rear bottom edge, 2.8 m front lower edge
- Inclination: 5 degrees
- Output:
  - Single Carport**  
3.2kWp on 20 m<sup>2</sup> surface  
▲ 3300 kWh p.a.
  - Double Carport**  
6.4 kWp on 39,5 m<sup>2</sup> area  
▲ 6600 kWh p.a.

## Construction: Tightness:

For the construction of the 4 foundations, a pattern template is included: 4 steel elements are poured in concrete, so that subsequent adjustments to the timber construction are unnecessary: the 4 base beams are equipped with an integrated steel insert which is simply placed on the foundation pole and locked.

The assembly manual is included within the scope of delivery.

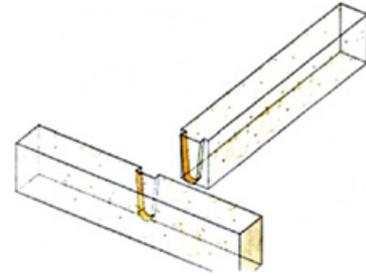
Due to the low weight of the individual components, 3 people may easily set up the carport without the usage of an additional crane.

The complete assembly kit, including the glass-glass modules, easily fits on a 7.5t van, so that a low-cost delivery is guaranteed.

The overlapping glass-glass modules ensure for the drainage of rainwater: the shingled modules drain the water to the rear end of the carport. This protected technology makes the use of additional metal profiles obsolete. On the long sides, the glass-glass modules are overlapping the timber construction by about 250 mm. So rain water is also not transferred into the inner area of the carport by the length sides.

## Statics:

The purlins are connected to the longitudinal beams by means of undercut recesses. This ensures maximum stability with minimum installation effort.



The open construction of carports often has to withstand high wind and snow loads. The proofed static certificate provides assurance that a maximum load of  $3\text{ kN} / \text{m}^2$  can be carried without any problems up to snow load zone 3.

With  $4.55\text{ kN} / \text{m}^2$ , the wind load is to be regarded as sufficiently dimensioned for almost all application areas.

## Electrical connection:

We provide three options to choose:

- Cabling with module inverters
- Cabling with string inverters
- Special option with string inverters and module optimizer

The electrical components necessary are included within the assembly kit.

All you need is a line from the carport to the nearest possible feed-in point - usually the technical room in the basement.

This ensures easy connection to the local power supply. Or else, you may select a system solution



with integrated battery storage which can be installed into the foundations.

Each timber post has a wire conduit to „hide“ the connection of the DC and AC cables to the in-house power supply in an elegant and invisible manner.

The cables run on the outer longitudinal beams and may optionally be concealed by cover strips.

## Maintenance and cleaning:

The solar modules as well as all electrical components are maintenance-free.

In combination with our frameless modules, the shingle technology

developed by a2-solar protects against dirt accumulation which may cause a yield loss of up to 20% on the long term. As a matter of fact, conventional modules with frames and mounting systems show increased dirt and dust accumulations which cannot be avoided on the lower edges.

Thanks to our shingle technology, the water flows over the glass edge to the adjacent module. Thus, dirt deposits cannot occur due to lacking frame edges. In the rear area, a rain gutter ensures a clean drainage of the water. In addition, copper strip inlays between the overlapping module spaces sustainably prevent the formation of algae and moss growing.

You have special requirements or discerning ideas? Just get in contact with us. It would be our pleasure to answer your technical encounters and to customize your carport according to your

demands and needs. True to our slogan:

**“Never say never,  
everything is possible”;**

we will develop your idea from the scratch up to the final product.





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## a2-solar - Highest German Quality and Experience in Advanced and Automotive Solar Systems

a2-solar draws back on more than 30 years of proven knowhow and technological expertise for innovative solar solutions in the field of building-integrated (BiPV) and „automotive“ solar systems. Our team incubates trend-setting

module technologies for all kinds of solar applications. As a high-performance innovator in the industry, we design solar carports in timber or steel construction. Each assembly component can be customized individually. Our solar

carports are skillfully designed down to the finest detail, thus ensuring for maximum green electricity yields and long-life performance as expected from a top German brand product.