



Various fields of application: retail stores, regional transport, municipal car parks



Simple & quick –

Find out about Solar Frontier products:



by telephone:
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on the Internet:
www.solar-frontier.eu



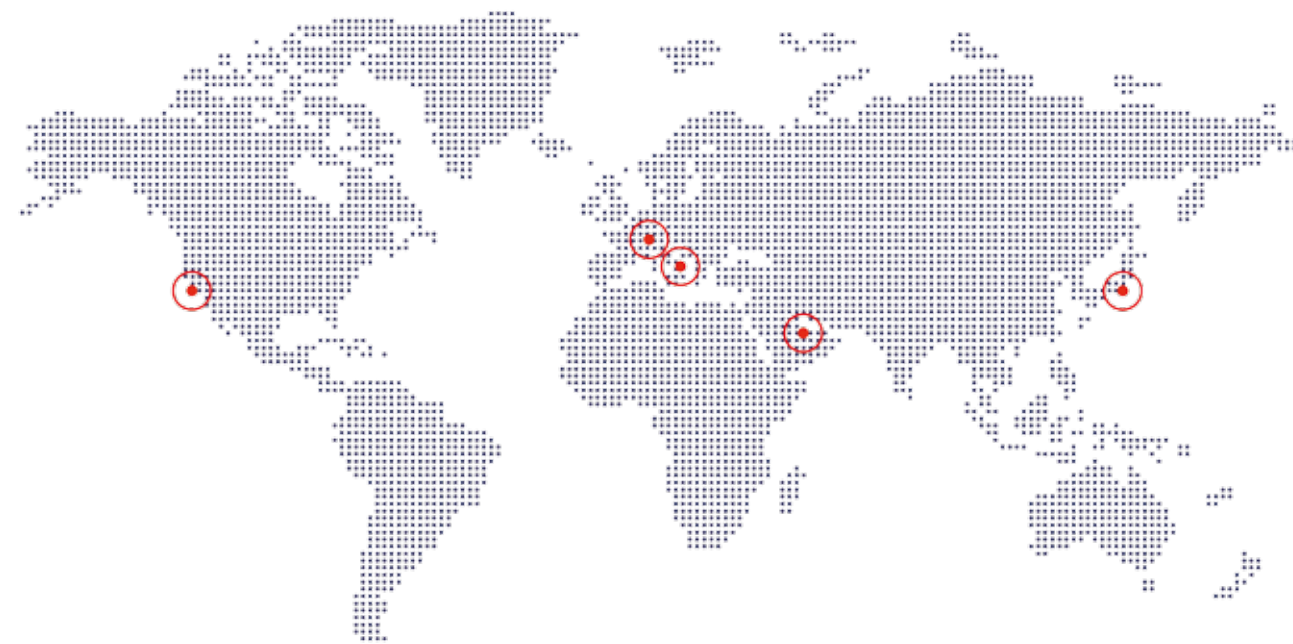
Our cooperation partner: Habdank

Habdank is characterised by a high degree of stability, aesthetics, economy and specialist knowledge. 90 years of experience in metal and steel processing, as well as in complex outdoor photovoltaic plant construction projects, are proof of its professionalism and reliability.

The range of services provided by Habdank for PowerPort comprises a system structural analysis of the complete car port plant. This includes the steel structure, trapezoidal metal sheet roof, the HABDANK TR module mounting system and all necessary mounting elements for problem-free construction.

Habdank can supply numerous additional options for the PowerPort, such as drainage, lighting, advertising and flexible colour schemes adapted to customers' individual requirements. Habdank also of course offers comprehensive installation services and foundation works.

Order acceptance and processing for the PowerPort is also carried out by Habdank.



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Solar Frontier PowerPort

Use your car park to save electricity costs.



Flexible and versatile fields of application

For local authorities or companies, photovoltaic modules are the ideal way of producing electricity in your own car park. Sports or event halls, hospitals, company car parks, supermarkets, furniture shops and DIY stores offer the ideal environment and can transform their car parking area into small power plants.

Parking comfort for customers, employees and visitors is also increased thanks to snow-free parking spaces in winter, shady parking in summer and a way to stay dry while getting in and out or loading and unloading the car. All this promotes an environmentally-friendly image for local authorities and companies.

Solar Frontier has developed a special electrical system for the PowerPort that is perfectly complemented by the sub-structure provided by our cooperation partner Habdank. The PowerPort enables significant savings to be made in electricity costs, provides protection against future electricity price increases and enables excess energy to be fed into the public grid for a profit.

Our service package comprises an electrical system that comes with a 10-year system guarantee. We also give a performance guarantee of 25 years on our modules. Our cooperation partner Habdank covers the substructure – which also has a 10-year guarantee – and the installation (5-year guarantee).

4 good reasons to opt for the PowerPort



Economical – in addition to the small amount of time needed for installation, the low amount of materials required also contribute to the PowerPort's high levels of cost-effectiveness. Ground level concrete foundations enable maximum usage of the parking space. The customer-friendly construction guarantees easy parking, as well as making it comfortable to get in and out of the car. The flexible construction also offers an additional very economical possibility when it comes to the large-scale use of solar electricity production: it can either be used by the business itself or fed into the public grid to take maximum advantage of current feed-in tariffs.



Simple – the components, which are pre-fabricated in accordance with a modular design principle, comprise support, transverse and longitudinal girders to enable quick installation of the basic structure. The second installation phase involves mounting the trapezoidal sheet and module mounting systems included in the delivery. Following connection of cables and laying and mounting of the modules, the plant can be brought into operation shortly afterwards.



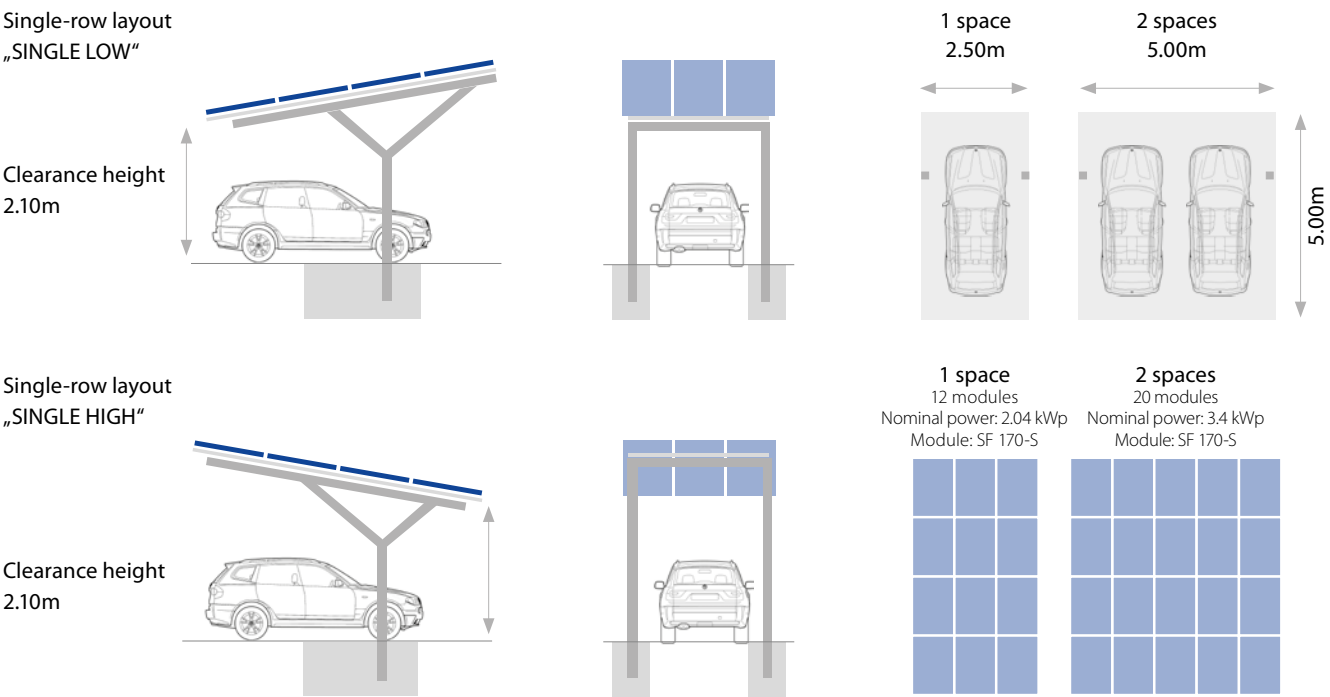
Secure – with an axis dimension of 5.00m, the PowerPort is designed to withstand wind load zone 2 = 25m/s or 90km/h wind speed, snow load zone 2 (ground level 450m above mean sea level) = 140kg/m² ground snow load and impact load of 10Kn = 1000kg. The trapezoidal installation system has been measured in accordance with DIN 1055-4 and 5. The profiles are designed to withstand wind load zone 4 = 30 m/s or 108 km/h wind speed, snow load zone 2a (ground level 450m above mean sea level) = 175kg/m² ground snow load with supplied mounting element and trapezoidal sheet thickness of at least 0.75mm for steel and 1.5mm for aluminium. This is a major advantage in safety terms, and somewhere where traditional systems often fall short, despite this being something that is becoming increasingly important in times of extreme weather situations with all the potential damage they can cause.



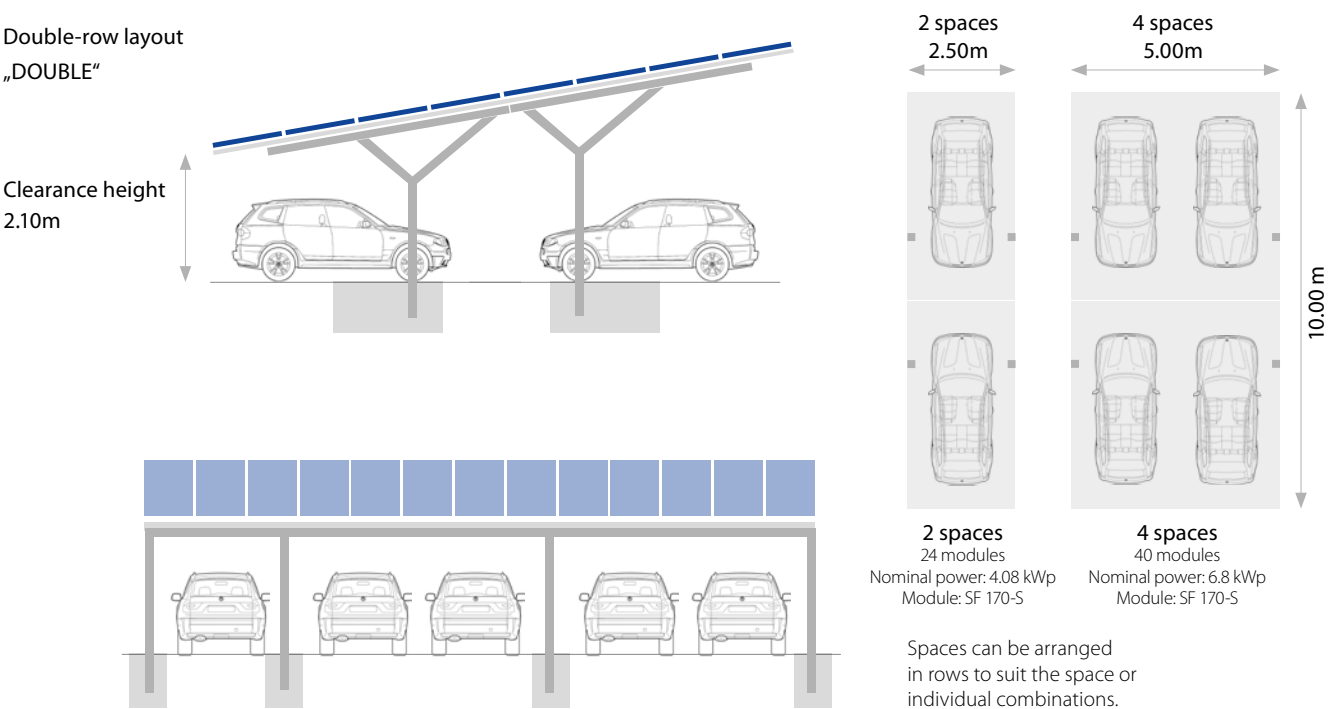
Flexible – the flexible modular system with single-row PowerPort Single and double-row layout of PowerPort Double enables efficient usage of the surface available. Whether a company car port, large car park at a supermarket, stadium, commercial or public institutions, Solar Frontier offers individual solutions for every location size. In addition to the standard construction types offered, property-specific special constructions are also possible on request.



PowerPort Single



PowerPort Double



CIS PowerModules

For highest yields – even under extreme conditions

Many model calculations for solar plants are based on optimal conditions: high levels of sunshine, clear skies, clear weather, no shadows, moderate temperatures. But how many hours a year do these conditions really exist? The perfect solution here is offered by CIS

PowerModule (C = copper, I = indium, S = selenium) by Solar Frontier. These enable the highest profits to be achieved in comparison to the competition – even in shade, cloudy conditions, low light or high temperatures.



Highest yields with CIS technology

Good low-light behavior

High energy yield – even in early morning, late evening, in misty weather, or if roofs are aligned east to west.



High shadow tolerance

When crystalline modules are partially in shadow (e.g. because of trees, chimneys or other buildings), the performance of the entire module decreases. However, with CIS PowerModules, only the area in shade is affected – the remaining part continues to produce electricity.



High temperature stability

The performance capabilities of conventional technologies are significantly affected on hot days. In contrast, CIS PowerModules generate high yields in the summer months as well.



“Light soaking effect”

This phenomenon is comparable to the warming up of an engine: as soon as the CIS Power Modules are exposed to the sun, the rated output of the module increases by up to 5%.