



SOLBIAN
FREEDOM POWERED BY THE SUN

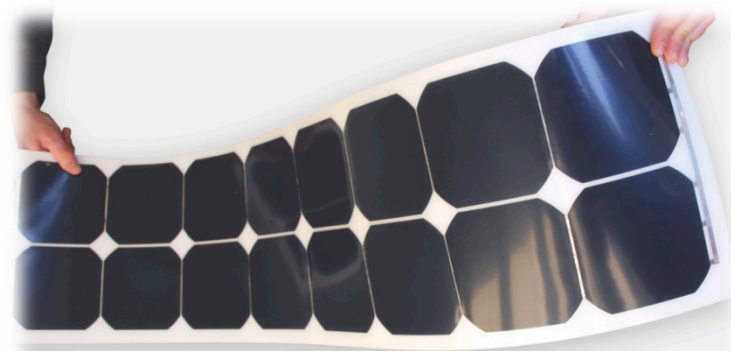
Since 2007 innovation in flexible crystalline silicon solar panels

Company premises

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- Born as a research spin-off in 2007, Solbian is manufacturing solar panel since 2010
- Leader in technology innovation on light flexible solar modules with crystalline silicon solar cells
- The high efficiency flexible modules obtained IEC 61215, IEC 61730 and IEC 61701 certifications
- Patented Technology
- ISO 9001, 14001, OSHAS 18001 manufacturing certification



The most performing, flexible and lightweight panels

The most efficient cells in the market (24%)

Solbian panels are at the top of the range, thanks to the use of selected SunPower™ monocrystalline silicon cells, reaching **a record 24% conversion of sunlight into electricity** and with a pleasant appearance thanks to back-contact technology which hides the electrical contacts.

Solbianflex SP are the **flexible panels with the highest efficiency**.

Our panels are lightweight: **less than 2.4 kg per square meter**, compared to 12 kg and more of traditional panels.

They are thin (**less than 2 mm**) and **flexible**, able to adapt to curved surfaces, such as the deck of a boat.

Working with polymers and with different kind of solar cells, widens the possibilities of product customization.



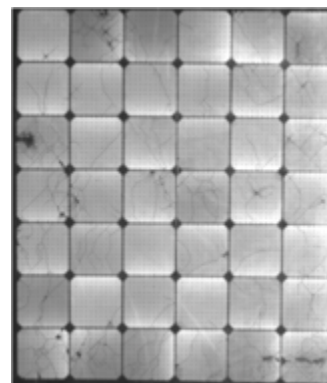
Guarantee of long duration

We are strongly confident in the long duration of our products, Solbian panels are very resilient and they are produced with high quality material, studied for marine application. We choose the best cells on the market, specially suited for flexible applications. The difference is clear.

Solbian panels have been tested in extreme conditions by great heroes of sailing: Giovanni Soldini, Sébastien Roubinet, Bruce Schwab and many others.

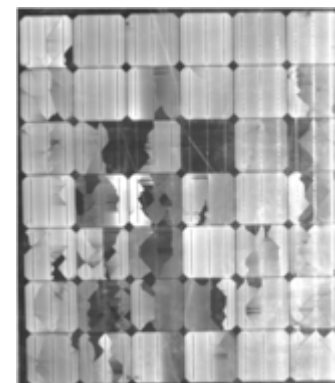
Production takes places entirely in Italy.

Solbian products are certified according to IEC61215, IEC 61730 and IEC 61701. Solbian manufacturing also obtained ISO9001 Quality, OHSAS18001 Safety and ISO14001 Environmental certifications.



Solbian cells: 1% loss

Test: damaged panel exposed
in the field for 6 months



Standard cells: 30% loss



Widely customizable

No limit for customization!

Solbian Technical Department can offer a strong support to satisfy the customer. You will obtain detailed drawings and help to exploit the available space with customized solutions, and to size the system power in relation to your needs. Several fixing options and electrical connections are available.

Each customer can choose the number of cells, colors and electrical characteristics of the panels, to obtain a result that suits its needs perfectly, thanks to the support of a highly specialized team of engineers, physicists and technicians who will assist from designing to implementation.

Thanks to a numerically controlled cutting plotter, the Solbian panels shape can be accurately tailor-made.



Surface Mounting solution for a full deck integration

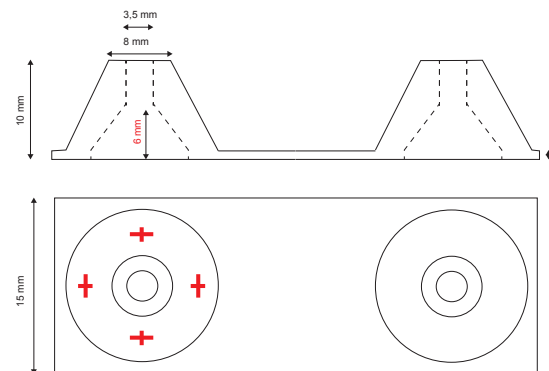
All Solbian panels can be trampled on.

With the Surface Mounting (SM) solution, electric cables are hidden on the back, avoiding any obstacle on the top.

SM solution consists of a textured surface and of a safe and durable electrical connection via moisture-resistant cables.

A custom-made grommet offers a perfect sealing of the electrical contacts and avoids chafing of the cables. Last but not least, SM panels can be offered with ready-to-use structural adhesive.

The external layer of the new front, made by a highly technical fluorinated polymer, assures UV and scratch resistance, and excellent light transmission.



Different series, different values

Three different cells technology, all of them “special”

SunPower: the top of the range for efficiency level, up to 24%

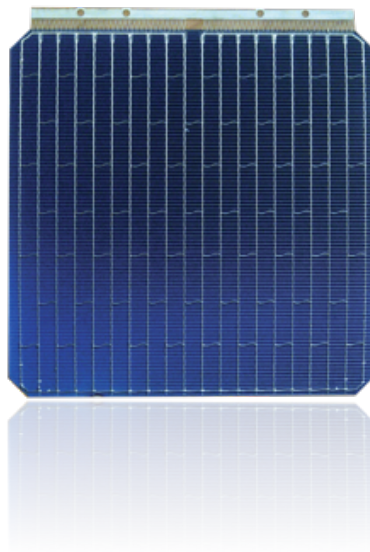
Merlin Solar: the most resilient cells sandwiched in metallic grids

Day4Eenergy: the best price, poly and mono cells with multi-wires contacting

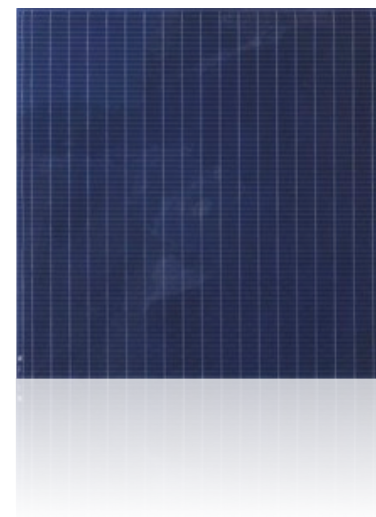
Solbianflex SP series



Solbianflex SR series



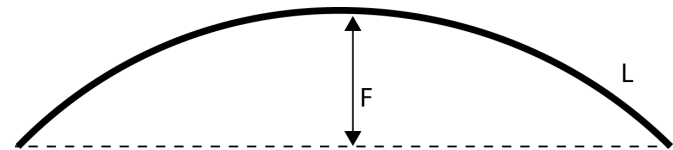
Solbianflex SX and SXp series



Technical characteristic overview

Solbianflex photovoltaic modules characteristics:

- ✓ Power: 150 to 200 W per square meter
- ✓ Weight: 1.5 to 2.4 kg per square meter
- ✓ Flexibility: curvature radius smaller than one meter
- ✓ Waterproof and Marine grade: Salt mist certified
- ✓ Several fixing method: adhesive, eyelets, snap buttons, zipper, screws...
- ✓ Different options for electrical contacts: Junction Box with standard MC4 connectors, back-side insulated wires, monopole Junction Boxes
- ✓ Background color: white, black, transparent or... custom
- ✓ Surface: flat or textured



Markets

Solbian is selling in more than 60 countries.

Since 2010 Solbian sold over 40,000 panels, more than 50% in the marine market.

Other application fields are caravans, trucks, ambulances, emergency installations, buildings, bus shelter, e-bike, outdoor life, etc.



Sailing and motor boats installations



Ships and ferries



12.5 kW Solbianflex SP system

All-electric ferry for internal waterborne - China



Ships and ferries

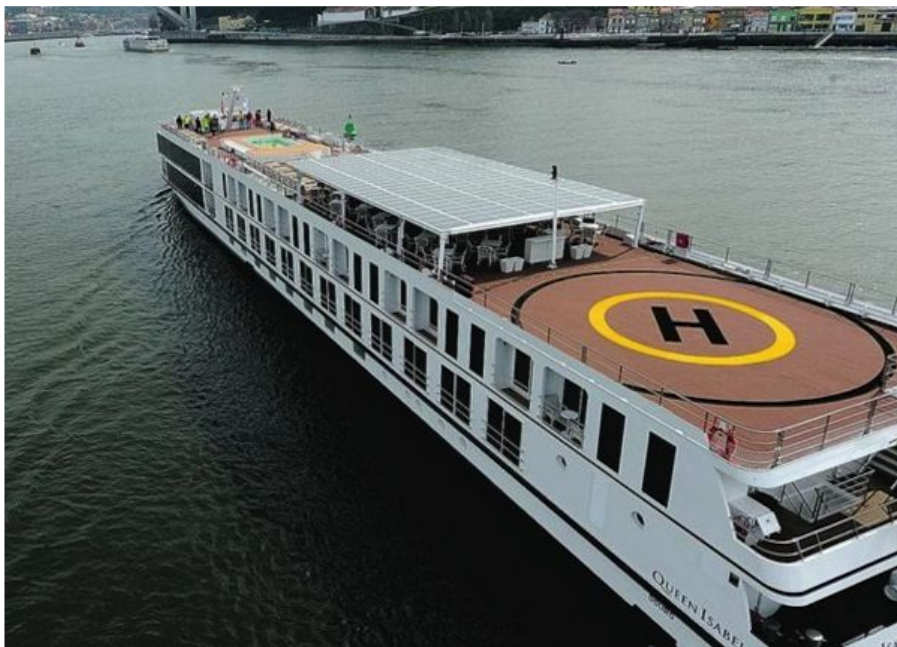


**Solbianflex SXp 145 panels on Delos
Blue Star Ferries – Greece**

Solar charge of the service batteries (24 Volt)



Ships and ferries



10 kWp Solbianflex installation on Ama Vida Ferry
Portugal

Integration in the ship AC system



Ships and ferries



Solbianflex custom SP series panels. Full deck integration. Energy Observer – France

Propulsion batteries charge (400 Volt) and hydrogen production

