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SOLBIAN
A new generation of PV panels

SOLBIAN.EU

ARE YOU READY
FOR A **new**
experience
OF **lightness**
& **power?**

Maserati boat official sponsor

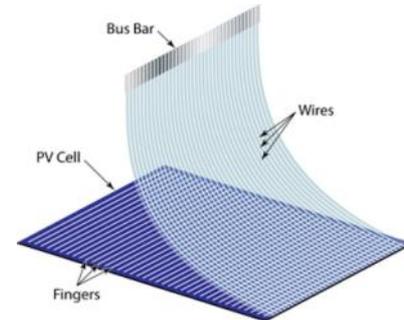
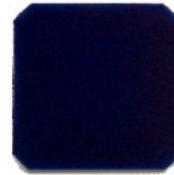
SOLBIAN

MADE IN ITALY

SOLBIAN

Three cell technologies All winners

- ✓ SP Series – Sunpower back-contact cells
- ✓ SR Series – Innovative mono high-efficiency cells
- ✓ SXp Series – Day4Energy multi-crystalline cells

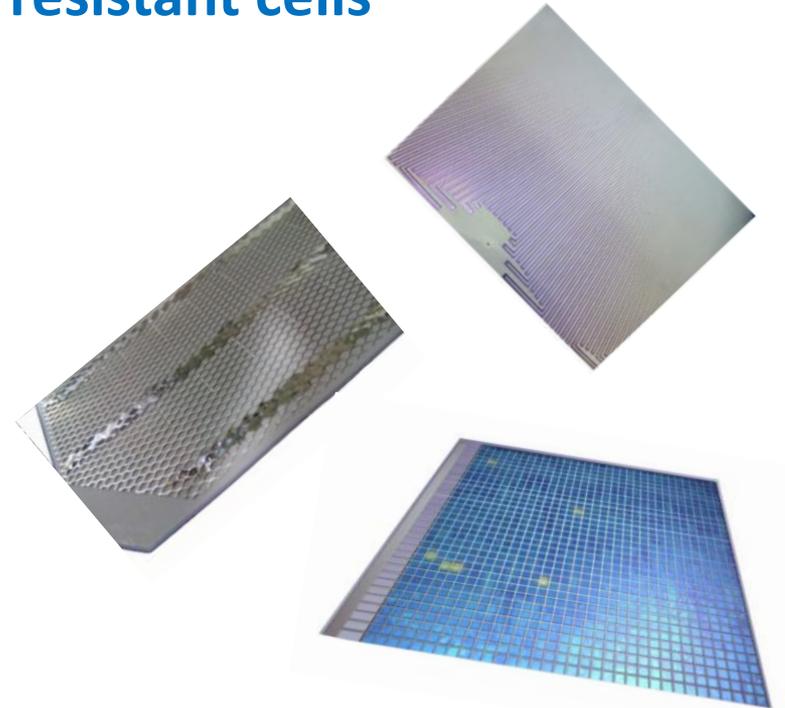


All the series have in common the same patented polymeric encapsulation

Solbian is different

Solbian uses only intrinsically crack resistant cells

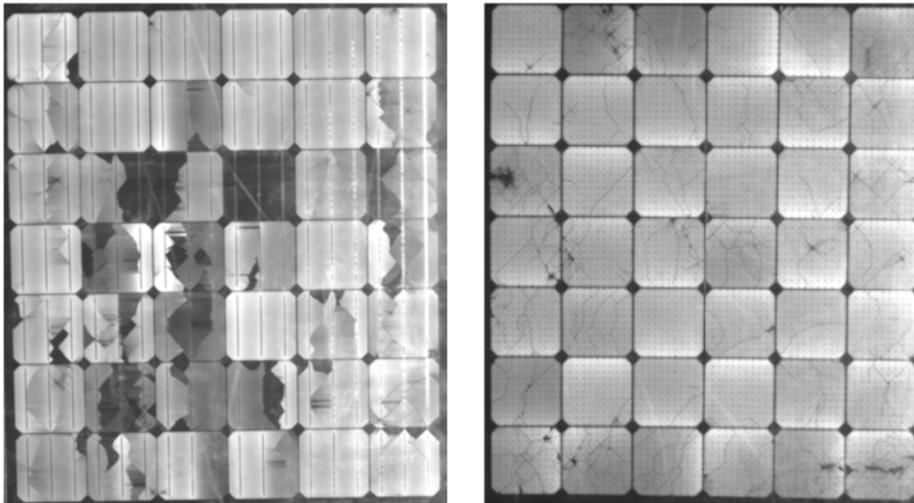
- ✓ SP Series: SunPower cells have contacts on the back of the cells made by a copper layer.
- ✓ SR Series: MerlinSolar cells have metallic grid on the front and metallic mesh on the back.
- ✓ SXp Series: Day4Energy cells have dense meshes of copper wires welded to the cells.



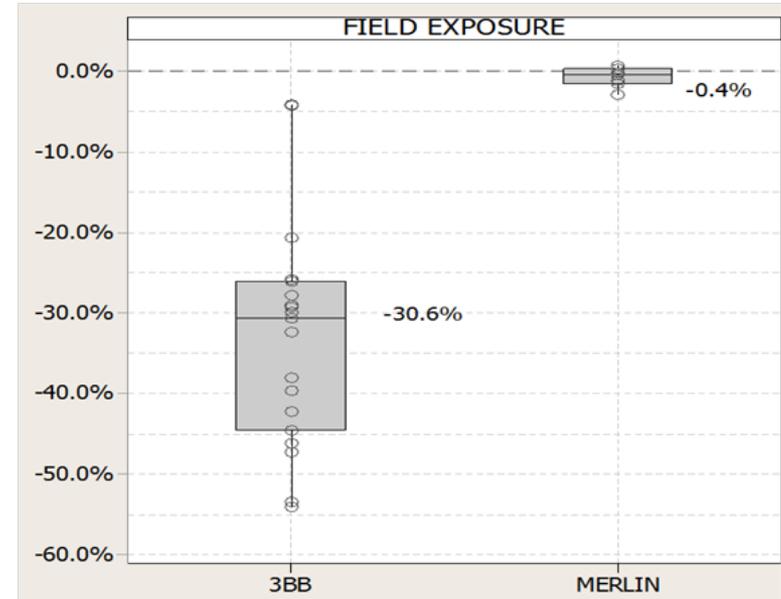
Wires, meshes, grids, have a double function: they ensure the electrical contacts also in case of cell cracks, and they avoid the deterioration of the damages due to thermal cycling.

Solbian is different

Strong mechanical stresses + field exposure



Electroluminescence: dark areas are not working



Power loss after field exposure. Merlin is SR series

Comparison between a flexible panel made with 3 Bus Bar mono cells and the SR Series. Both panels have been severely damaged and then exposed to weathering. SR cells (right), even if damaged, keep most of their power due to the extended contacting meshes. Wide areas of Bus-Bar cells can lose electrical contacts.



SP Series

SunPower cells are the most efficient available cells on the market (exceeding 24% of the sunlight energy conversion). Solbian uses cells with efficiency greater than 22,5%

Advantages: maximum efficiency, aesthetic appearance, reliability, impact resistance, low temperature coefficient, sensitivity to low light, compact size

Disadvantages: cost



The SP series is the most sold in marine market



SR Series

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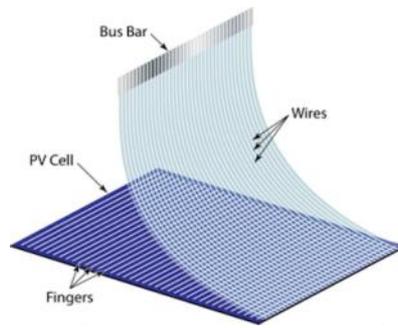
The monocrystalline MerlinSolar cells used in the SR series have efficiencies greater than 19% and exploit a new technology which encloses the cell in two metal meshes carefully tailored to optimize the current flow. This double armor makes the cells inherently flexible and resistant to mechanical shocks. A guarantee of high efficiency that lasts over time.

Advantages: high power, impact resistance, very flexible, unique in the market

Disadvantages: cost, high currents, large form factor



The SR series is the best suited to withstand strong stresses



SXp Series

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This Solbian SXp series uses Day4Energy technology, namely multi-crystalline cells with electrical contacts exploiting a dense mesh of copper wires. This solution makes the multi-crystalline cells more powerful and less sensitive to micro cracks. Solbian uses cells with efficiencies larger than 18%.

Advantages: innovative, competitive prices, impact resistance, aesthetics

Disadvantages: high currents, large form factor



The SXp series combines versatility and price