



MOTORHOME SERIES 

SAILBOAT SERIES 

GRID CONNECTED SERIES 

SOLBIAN

FLEXIBLE
PHOTOVOLTAIC
PANELS
LOGISTIC SERIES

LOGISTIC SERIES



2011



SOLBIAN

Solbian Energie Alternative **operates since 2007** in the Marine photovoltaic sector.

Giovanni Soldini with Solbian has made several installations of photovoltaic systems on sailing boats involved in international competitions.

Solbian Energie Alternative is supported by some companies and professionals that operates in the **photovoltaic sector** since many years.

The mission of the company is the production of **innovative photovoltaic modules**, with the aim to bring "energy where is really needed".

The special features of **flexibility, lightness and high efficiency** represent fundamental standards requested for these innovative applications.

The characteristics of our modules are particularly suitable for applications such as **sailing boats, electric mobility, campers and motorhomes, trekking, tents, emergency buildings** and for **Building Integrated Photovoltaics**.



Giovanni **SOLDINI**, has **tested SOLBIANFLEX** panels under **extreme conditions**

SOLBIAN

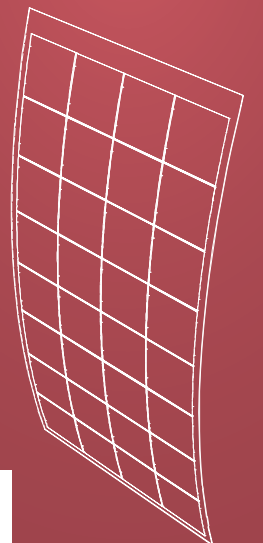
WHY INSTALL A SOLBIANFLEX PANEL?

- ✓ Because it is a **FLEXIBLE** panel with high efficiency crystalline silicon that can adapt to any surface, such as the deckhouse of your boat.
- ✓ Because it is an **ULTRALIGHT** panel. Only 2.35 kg compared with 14 kg of traditional panels.
- ✓ Because it offers different installation solutions. From **STRUCTURAL DOUBLE-SIDED ADHESIVE** that will make it part of your boat to **STAINLESS STEEL EYELETS** that will enable easy installation and removal if need be.
- ✓ Because it comes with a **WIDE RANGE OF ACCESSORIES** designed and manufactured for the boats industry and for easy installation.
- ✓ Because it has an exceptional testimonial, **GIOVANNI SOLDINI**, who has tested the panels SolbianFlex under extreme conditions. Solbian-Flex panels have been realized with innovative high tech polymers capable of withstanding the worst weather conditions: they are completely waterproof and resistant to hail and humidity.



powered by **SUNPOWER**

lightness,
efficiency
and flexibility



SOLBIAN.EU

SAME SIZE - DIFFERENT POWER

SolbianFlex panels are designed to meet the different needs of our customers. This is due to the different cell technology. Discover the most suitable for you!



SL-40Q



SL-40L



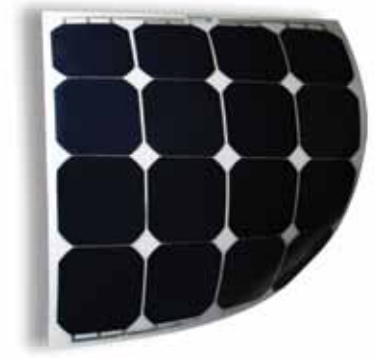
SL-80L



SP-100L



SP-50L



SP-50Q

The PANELS SOLBIANFLEX of series **Solar Light** are made with crystalline cells with **efficiency greater than 16,5%** embedded in polymers with high-resilience technology developed in collaboration with **CNR of Parma**. These materials make the panels flexible, walkables with a **weight of about 1/8 compared to traditional glass panels**.

PHYSICAL CHARACTERISTICS	SL-80L	SL-40L	SL-40Q
Lenght	1110 mm	1110 mm	595 mm
Height	540 mm	285 mm	540 mm
Thickness	1,5 mm	1,5 mm	1,5 mm
Weight	1,5 kg	0,79 kg	0,8 kg
ELECTRICAL CHARACTERISTICS	SL-80L	SL-40L	SL-40Q
Vmp (max power voltage)	16,64 V	8,32 V	8,32 V
Imp (Max power current)	4,87 A	4,87 A	4,87 A
Wp (peak power at stc)	80,98 W	40,49 W	40,49 W
Voc (Open circuit voltage)	20 V	10 V	10 V
Isc (short circuit current)	5,2 I	5,2 I	5,2 I
Efficiency (module)	14%	13,31%	13,46%
Power Tolerance	+/- 5%	+/- 5%	+/- 5%
Max bending	25%	25%	25%

PHYSICAL CHARACTERISTICS	SP-100L	SP-50L	SP-50Q
Lenght	1110 mm	1110 mm	595 mm
Height	540 mm	285 mm	540 mm
Thickness	1,5 mm	1,5 mm	1,5 mm
Weight	1,5 kg	0,79 kg	0,8 kg
ELECTRICAL CHARACTERISTICS	SP-100L	SP-50L	SP-50Q
Vmp (max power voltage)	18,40 V	9,20 V	9,20 V
Imp (Max power current)	5,51 A	5,51 A	5,51 A
Wp (peak power at stc)	101,39 W	50,70 W	50,70 W
Voc (Open circuit voltage)	21,76 V	10,88 V	10,88 V
Isc (short circuit current)	5,85 I	5,85 I	5,85 I
Efficiency (module)	17,53%	17,14%	16,86 %
Power Tolerance	+/- 5%	+/- 5%	+/- 5%
Max bending	25%	25%	25%
TEMPERATURE COEFFICIENTS	SP-100L	SP-50L	SP-50Q
Voltage	0,058V/°C	0,029V/°C	0,029V/°C
Power	-0,32%/°C	-0,32%/°C	-0,32%/°C
Current	+3,5 mA	+3,5 mA	+3,5 mA
NOCT	50+/-2°C	50+/-2°C	50+/-2°C

The PANELS SOLBIANFLEX of series **Sun Power** are made with crystalline cells with **efficiency greater than 22,5%** embedded in polymers with high-resilience technology developed in collaboration with **CNR of Parma**. These materials make the panels flexible, walkables with a **weight of about 1/8 compared to traditional glass panels**.

ACCESSORIES

WR15.

STEPDOWN FOR SP100/SL80 OR TWO SL40/SP50 CONNECTED IN SERIES.

WRM15 is a complete solution for the realization of off-grid PV systems to power supply road signs systems, lighting systems, small low voltage systems and for the recharge of batteries inside caravans. This model of charge regulator has got a circuit of search of the maximum PV module's power (MPPT): regardless of battery voltage and its charge state, WRM-15 make always the PV module work in its point of maximum power maximizing the energy extracted from the module and loaded into the battery.



BTR-17.

STEPDOWN & STEPUP. FOR ANY TYPE OF SOLBIANFLEX PANEL

The solar charge controller BTR-17 is a device developed specifically for small-scale solar energy conversion. The controller manages and optimizes the transfer of energy from the solar panel to the lead acid battery, continually looking for maximum power point according to the panel installed, and environmental conditions. The regulator also protects the battery from overcharge by limiting the current as a function of the state of charge and is protected against overloading the input and output.



SOLBIAN BY GENASUN.

STEPUP FOR SL40/SP50 PANEL

The Solbian by Genasun regulators are able to manage all the panels realized by Solbian. This type of controllers is able to StepUp and StepDown in modality MPPT (Max Power Point Tracking), enabling it to improve energy efficiency by 10 to 30% more than the standard controllers. Our controllers are particularly suited to optimize the performance of SL 40 and SP 50 modules.



CONNECTION AND FIXING OPTIONS

JUNCTIONBOX

The SolbianFlex panels have a JunctionBox which allows connection to the charge controller. The charge controller is then connected to the batteries installed on your boat. The SolbianFlex kit for sailors is easy to install and requires no special knowledge.



STAINLESS STEEL EYELETS

The SolbianFlex panels, can be fitted along the edge by their special stainless steel eyelets that allow easy installation and removal based on specific needs of the boat. This solution makes it possible to secure the panel by special ropes to the deckhouse of the boat or its canopy (on request, in this case of the panel can be equipped with a special connection with ZIP).



TENAX

Tramite gli occhielli TENAX il pannello può essere installato e rimosso ogni qualvolta lo si desidera. Questo tipo di collegamento può essere utilizzato sia su tendalini e bimini che sullo scafo della vostra imbarcazione.



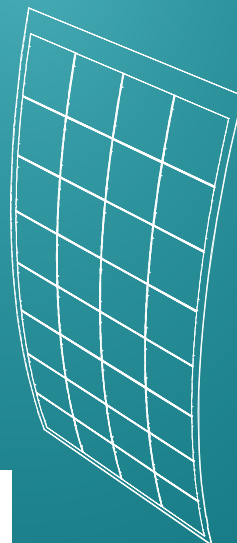
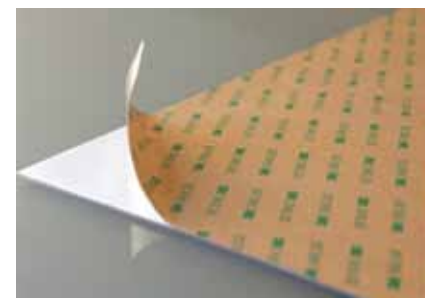
ZIP

The ZIP connection is suitable for the bimini of your boat. Easy to install and easy to remove. Ideal for those seeking maximum versatility of the SolbianFlex products



STRUCTURAL BIADHESIVE

The SolbianFlex flexible panels can become part of your boat through a special structural double-sided adhesive. This solution protects the panel from theft because it is unremovable.





SOLBIAN ENERGIE ALTERNATIVE SRL

Legal and Operative Headquarter: Via Caselette, km.16.200 - 10091 Alpignano (TO) - Phone: +39 011.966.35.12 - Fax: +39 011.966.47.20 - commerciale@solbian.eu
Office in Avigliana: Viale dei Mareschi, 15 - 10051 Avigliana (TO) - ITALY - Phone: +39 011.932.56.66 - Fax: +39 011.932.56.64 - info@solbian.eu