

SAILBOAT SERIES 

LOGISTIC SERIES 

GRID CONNECTED SERIES 

SOLBIAN

FLEXIBLE
PHOTOVOLTAIC
PANELS
MOTORHOME SERIES

MOTORHOME 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

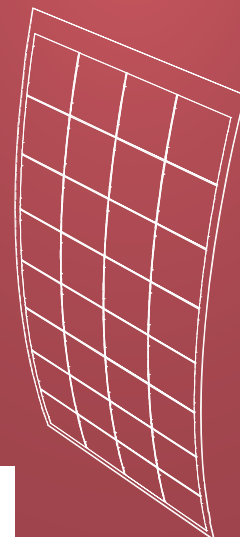
WHY INSTALL A SOLBIANFLEX PANEL?

- ✓ Because it is a **FLEXIBLE** panel with high efficiency crystalline silicon that can adapt to any surface, such as the roof of your camper.
- ✓ 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 camper 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 camper 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.



lightness,
efficiency
and flexibility

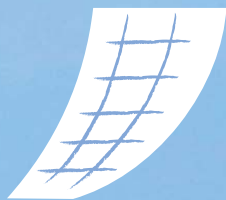
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SOLBIANFLEX™

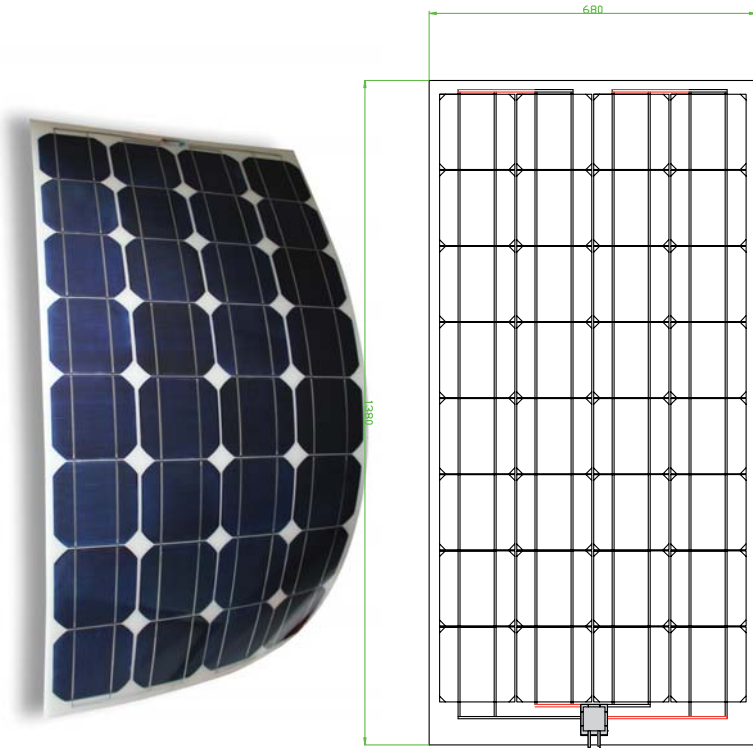
FLEXIBLE
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FLEX CP125



SOLBIANFLEX PANELS series CP are made of crystalline silicon cells with **efficiency of over 17%**, encapsulated in special high resilience techno polymer developed in collaboration with **CNR of Parma**. They are flexible, can be walked upon and weigh 1/8 as much as traditional panel. Their specific manufacturing technology makes them particularly suitable for installations where resilience and flexibility are required.

SOLBIAN



INSTALLATION



CONNECTION AND FIXING OPTIONS



CONNECTION: JUNCTION BOX



FIXING: DOUBLE SIDED TAPE

DATA SHEET

PHYSICAL CHARACTERISTICS

Length	1380 mm
Height	680 mm
Thickness	1,5 mm
Weight	2,35 kg

ELECTRICAL CHARACTERISTICS

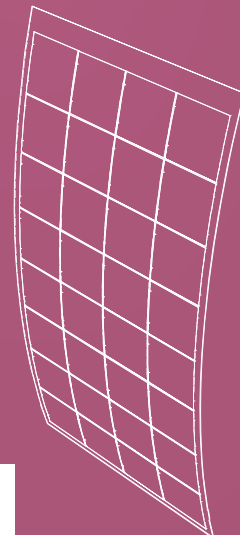
Vp max	16,86 V
Ip max	7,61 A
Wp	128,40 W
Vca	20,10 V
Icc	8,10 I
Efficiency (module)	14,44%
Max Bending	25%

SOLBIANFLEX PANELS series CP are made with a special adhesive that allows, thanks to their flexibility, easy installation even on curved surfaces.

On request we can supply the complete kit for installation:

- ✓ Photovoltaic Panel
- ✓ Charge regulator
- ✓ Connectors (pairs)
- ✓ Cable (4 m)

FLEX CP125



ACCESSORIES

CABLES

The cables are used for wiring to the battery. They are provided 4 meters long and with a section of 2,5 mm.



WR10

WR10/20 is a PV charge regulator for batteries. It can be used either in small or big systems for domestic and industrial use and for telecommunication systems. It controls the current of PV module with PWM recharge and it controls the battery discharge disconnecting the load in case of deep discharge of the battery. The load can be activated according to different configurations that can be set by the user: load always on, load on only during the day, load on only during the night, load on only during the night that can be programmed for a total number of hours from 1 to 16. The different load management configurations make WR10/20 the complete solution in many PV applications. WR 10/20 detects the day/night condition according to the panel voltage; therefore it is not necessary to connect further sensors to the regulator. WR 10/20 has LCD graphic display for easy use.



MC4 CONNECTORS

The connectors are used to connect the panel to the Junction Box. They are easy to install and are supplied in pairs: male and female.



HOW TO INSTALL A SOLBIANFLEX PANEL



STRUCTURAL BIADHESIVE

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



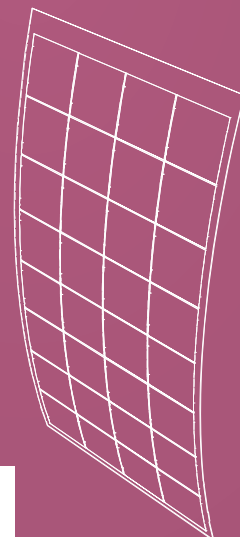
STAINLESS STEEL EYELETS

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 camper. This solution makes it possible to secure the panel by special ropes to the roof of the camper or its canopy (on request, in this case of the panel can be equipped with a special connection with ZIP).



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 camper. The SolbianFlex kit for campers is easy to install and requires no special knowledge.



FLEX SL-SERIES



SL-80L



SL-40L



SL-40Q

PHYSICAL CHARACTERISTICS	SL-80L	SL-40L	SL-40Q
Length	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
Vp max	16,64 V	8,32 V	8,32 V
Ip max	4,87 A	4,87 A	4,87 A
Wp	80,98 W	40,49 W	40,49 W
Vca	20 V	10 V	10 V
Icc	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%

FLEX SP-SERIES



SP-100L



SP-50L



SP-50Q

PHYSICAL CHARACTERISTICS	SP-100L	SP-50L	SP-50Q
Length	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
Vp max	18,40 V	9,20 V	9,20 V
Ip max	5,51 A	5,51 A	5,51 A
Wp	101,39 W	50,70 W	50,70 W
Vca	21,76 V	10,88 V	10,88 V
Icc	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%