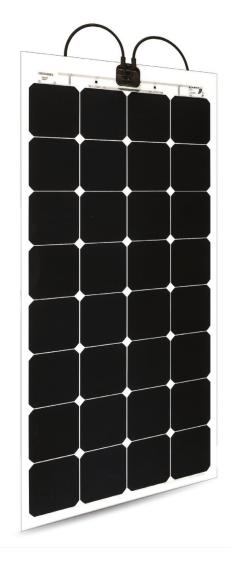
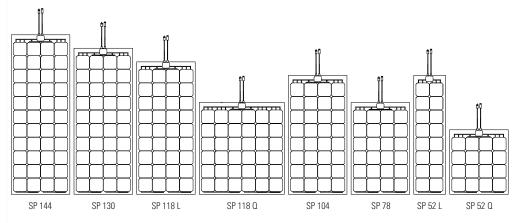
SOLBIANELEX SP



Power at the highest level. SP series

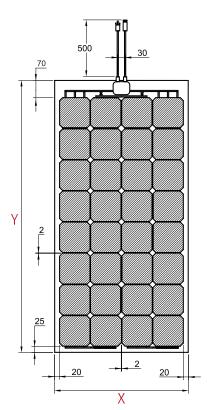


SP series is at the top of the range, thanks to the use of selected SunPowerTM monocrystalline silicon cells, reaching a record 24% conversion of sunlight into electricity and with a pleasant appearance thanks to the electrical contacts hidden on the back. SunPowerTM cells represent the most advanced technology on the market, and make the SP Solbian panels the highest-efficiency flexible panels.

Flexible, powerful and robust, the panels of the SP series are recommended for all installations where maximum reliability and power are required, and the appearance of these cells is one of the symbols of photovoltaic modules. They can be used in all situations and are a best seller in marine applications.

Features

- ✓ The most efficient flexible modules on the market
- ✓ Flexible and lightweight (2.2 kg/m²)
- ✓ Completely waterproof and resistant to salt water
- ✓ Thin (less than 2 mm)
- ✓ IEC 61215, IEC 61730 and IEC 61701 certified
- √ 5 year warranty against manufacturing defects
- ✓ Integrated bypass diodes to minimise output losses associated with partial shading
- Available with different front sheets, many fixing and electrical wiring options
- ✓ White, black or transparent back sheet
- ✓ Adaptable to any battery: from 5 to 48 volt, lead-acid or lithium
- ✓ Designed and manufactured in Italy



SOLBIANFLEX SF

SP series SUNPOWER® inside

SunPower™ cells used in SP series panels are high efficiency monocrystalline cells (the highest available on the market). The electric contacts create a thick pattern resembling two interpenetrating combs on the rear of the cell, this guarantees an optimal management of micro fractures, without power loss. Backcontact cells are also the best choice when it comes to efficiency in low light and sensitivity at higher temperatures. In fact the temperature coefficient is 25% lower than the other cristalline cells.

Back-contact Cell



No grid lines on front of cell means no obstacles to the absorption of sunlight. **Maximum efficiency and great** aesthetics.



Solid copper backing.

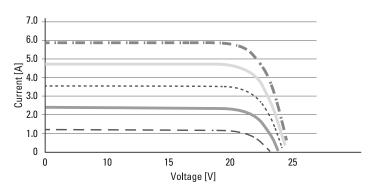
Massive strength and resistance to corrosion.

Natasheet

SP 144 SP 130 SP 118 L SP 118 Q SP 104 SP 78 SP 52 L									
Length Y [mm] 1490 1363 1236 855 1109 855 1109 Width X [mm] 546 546 546 546 546 546 546 292 Thickness [mm] 2 3 2 3	SP 52 Q	SP 52 L	SP 78	SP 104	SP 118 Q	SP 118 L	SP 130	SP 144	
Width X [mm] 546 546 546 546 546 546 546 546 546 292 Thickness [mm] 2 </th <th>52</th> <th>52</th> <th>78</th> <th>104</th> <th>118</th> <th>118</th> <th>130</th> <th>144</th> <th>Maximum power (±5%) [W]</th>	52	52	78	104	118	118	130	144	Maximum power (±5%) [W]
Thickness [mm] 2	601	1109	855	1109	855	1236	1363	1490	Length Y [mm]
Weight [kg] 1.90 1.70 1.60 1.60 1.40 1.10 0.80 Max power Voltage Vmp [V] 25.3 22.8 20.7 20.7 18.2 13.7 9.1 Max power Current Imp [A] 5.7 5.7 5.7 5.7 5.7 5.7 5.7 Open circuit voltage Voc [V] 30.0 27.3 24.5 24.5 21.8 16.4 10.9 Short circuit current Isc [A] 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 NOCT [°C] 45±2 45±2 45±2 45±2 45±2 45±2 45±2 45±2 45±2 40/+85 -40/+85 -40/+85 -40/+85 -40/+85 -40/+85 -40/+85 -40/+85 -0.35 -0.35 -0.35 -0.35 -0.35 -0.35 -0.28 -0.28 -0.28 -0.28 -0.28 -0.28 -0.28 -0.28 -0.28 -0.28 -0.28 -0.28 -0.28 -0.28 -0.28	546	292	546	546	800	546	546	546	Width X [mm]
Max power Voltage Vmp [V] 25.3 22.8 20.7 20.7 18.2 13.7 9.1 Max power Current Imp [A] 5.7 5.0 5.7 6.0 6.0 6.0 6	2	2	2	2	2	2	2	2	Thickness [mm]
Max power Current Imp [A] 5.7 6.0 6.0 6.0 <th>0.80</th> <th>0.80</th> <th>1.10</th> <th>1.40</th> <th>1.60</th> <th>1.60</th> <th>1.70</th> <th>1.90</th> <th>Weight [kg]</th>	0.80	0.80	1.10	1.40	1.60	1.60	1.70	1.90	Weight [kg]
Open circuit voltage Voc [V] 30.0 27.3 24.5 24.5 21.8 16.4 10.9 Short circuit current Isc [A] 6.0 45±2 45±2 45±2 45±2	9.1	9.1	13.7	18.2	20.7	20.7	22.8	25.3	Max power Voltage Vmp [V]
Short circuit current Isc [A] 6.0 45 ± 2 45 ± 2 45 ± 2	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	Max power Current Imp [A]
NOCT [°C] 45 ± 2 40/485 -40/485 </th <th>10.9</th> <th>10.9</th> <th>16.4</th> <th>21.8</th> <th>24.5</th> <th>24.5</th> <th>27.3</th> <th>30.0</th> <th>Open circuit voltage Voc [V]</th>	10.9	10.9	16.4	21.8	24.5	24.5	27.3	30.0	Open circuit voltage Voc [V]
Operating temperature [°C] -40/+85 -40/	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	Short circuit current lsc [A]
Temp. coeff. Pmax [%/°C] -0.35 -0.35 -0.35 -0.35 -0.35 -0.35 -0.35 -0.35 -0.35 -0.35 -0.35 -0.28 -0.	45 ± 2	45 ± 2	45 ± 2	45 ± 2	45 ± 2	45 ± 2	45 ± 2	45 ± 2	NOCT [°C]
Temp. coeff. Voc [%/°C] -0.28 -0.28 -0.28 -0.28 -0.28 -0.28 -0.28	-40/+85	-40/+85	-40/+85	-40/+85	-40/+85	-40/+85	-40/+85	-40/+85	Operating temperature [°C]
	-0.35	-0.35	-0.35	-0.35	-0.35	-0.35	-0.35	-0.35	Temp. coeff. Pmax [%/°C]
Temp. coeff. Isc [%/°C] 0.05 0.05 0.05 0.05 0.05 0.05	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	Temp. coeff. Voc [%/°C]
	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	Temp. coeff. Isc [%/°C]
Columns x Rows (cells n°) 4x11 (44) 4x10 (40) 4x9 (36) 6x6 (36) 4x8 (32) 4x6 (24) 2x8 (16)	4x4 (16)	2x8 (16)	4x6 (24)	4x8 (32)	6x6 (36)	4x9 (36)	4x10 (40)	4x11 (44)	Columns x Rows (cells n°)
Maximum system voltage [V] 1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	Maximum system voltage [V]
Maximum reverse current [A] 12 A 12 A <t< th=""><th>12 A</th><th>12 A</th><th>12 A</th><th>12 A</th><th>12 A</th><th>12 A</th><th>12 A</th><th>12 A</th><th>Maximum reverse current [A]</th></t<>	12 A	12 A	Maximum reverse current [A]						
Safety class A A A A A	А	А	А	А	А	А	А	А	Safety class

^{*} Values at STC = Standard Test Conditions: (a) light Spectrum for an Air Mass of 1.5; (b) irradiance of 1000 W/m² with perpendicular incidence and (c) cell temperature of 25 °C. Measurements carried out according to the Standard IEC 61215 requirements.

Electrical Characteristics





Certifications











