Low Voltage Rigid and Flexible Solar Panels
Product Overview

These light weight, thin rigid and flexible solar panels are a fantastic way to ensure you are topped up with electricity without having the burden of a large standard solar panels.

These panels are lower voltage than a standard solar module and are ideal for smaller projects.

Available in 10W to 160W, our low voltage solar panels can be easily attached to wide variety of mounting surfaces. The waterproof junction box and MC4 connectors allow for simple connections to solar charge controllers ensuring that maximum collection of energy.

Standard Features

- Using monocrystalline or polycrystalline cells with efficiency between 15 to 18%.
- Waterproof connection box
- Custom sizes and mounting options available
- Ready to charge any size battery bank
- Highly resistant to saline environments and wet weather

Applications:
RV, Golf Car, Patrol Car, Signaling System, Water Pumping Systems, Travel Tourism Car, Yacht, Roof Power generation, Backpack, Tents.

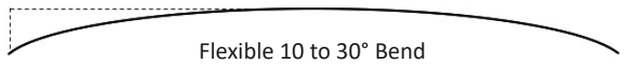
Warranty: 25 Year Power Output

10 Years Materials and Workmanship

Flexible Solar Panels

Flexible Panel Features
- Bend rate from 10-30 degree.
- Ultra soft, very light and 3mm thin
- Custom sizes available

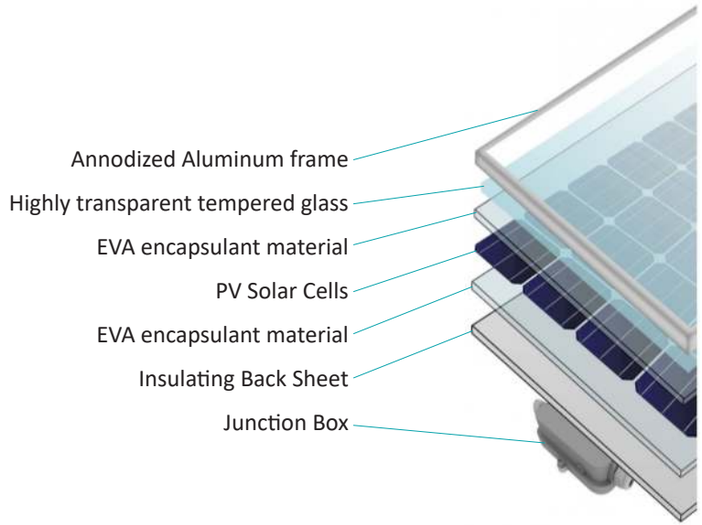
Flexible Panel Mounting Options
- DIY Silicon Ready
- Double sided tape / velcro
- Grommet Holes
- Custom mounting options



Rigid Solar Panels

Rigid Panel Features:
- Great for Small to Med Projects
- Easy To Install
- MC4 connectors Included
- Custom Sizes Available

Rigid Panel Mounting Options
- Z Bracket
- Pole Mount
- Ground Mount
- Custom mounting options



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Low Voltage Flexible Solar Panel
Product Line Sheet

ELECTRICAL SPECIFICATIONS	PES-FLX-10P	PES-FLX-20P	PES-FLX-30P	PES-FLX-40P	PES-FLX-50P	PES-FLX-60P	PES-FLX-80P	PES-FLX-100P	PES-FLX-120P	PES-FLX-150P	PES-FLX-160P
Type	Flexible	Flexible	Flexible	Flexible	Flexible	Flexible	Flexible	Flexible	Flexible	Flexible	Flexible
Max Power: Pmax, W	10	20	30	40	50	60	80	100	120	150	160
Voltage at Max. Power Point: Vmpp	18	18	18	18	18	18	18	18	18	18	18
Current at Max. Power Point: Impp, A	0.56	1.12	1.67	2.23	2.8	3.34	4.45	5.6	6.67	8	8.4
Open circuit voltage: Voc	22	22	22	22	22	22	22	22	22	22	22
Short circuit current: Isc, A	0.6	1.3	1.8	2.35	3	3.5	4.5	6	6.8	8.6	9
Number of Cells in Series	36	36	36	36	36	36	36	36	36	36	36
Cell Type	POLY	POLY	POLY	POLY	POLY	POLY	POLY	POLY	POLY	POLY	POLY
Nominal Voltage: V DC	12	12	12	12	12	12	12	12	12	12	12
Conversion Efficiency	15-18%	15-18%	15-18%	15-18%	15-18%	15-18%	15-18%	16-18%	16-18%	16-18%	16-18%
Operating Temperature	-40 °C to 85 °C	-40 °C to 85 °C	-40 °C to 85 °C	-40 °C to 85 °C	-40 °C to 85 °C	-40 °C to 85 °C	-40 °C to 85 °C	-40 °C to 85 °C	-40 °C to 85 °C	-40 °C to 85 °C	-40 °C to 85 °C
Temperature Co-efficient of Pmax	- 0.43%/K	- 0.43%/K	- 0.43%/K	- 0.43%/K	- 0.43%/K	- 0.43%/K	- 0.43%/K	- 0.43%/K	- 0.43%/K	- 0.43%/K	- 0.43%/K
Power Tolerance	+ 1 to 2%	+ 1 to 2%	+ 1 to 2%	+ 1 to 2%	+ 1 to 2%	+ 1 to 2%	+ 1 to 2%	+ 1 to 2%	+ 1 to 2%	+ 1 to 2%	+ 1 to 2%
Temperature Co-efficient of Vm	-0.36%/K	-0.36%/K	-0.36%/K	-0.36%/K	-0.36%/K	-0.36%/K	-0.36%/K	-0.36%/K	-0.36%/K	-0.36%/K	-0.36%/K
Temperature Co-efficient of Im	+0.06%/K	+0.06%/K	+0.06%/K	+0.06%/K	+0.06%/K	+0.06%/K	+0.06%/K	+0.06%/K	+0.06%/K	+0.06%/K	+0.06%/K
Maximum System Voltage(Vdc)	600VDC	600VDC	600VDC	600VDC	600VDC	600VDC	600VDC	600VDC	1000VDC	1000VDC	1000VDC
Module Size: mm (L x W x T)	325 x 275 x 3	451 x 350 x 3	680 x 346 x 3	418 x 675 x 3	680 x 540 x 3	600 x 675 x 3	770 x 675 x 3	1040 x 680 x 3	778 x 993 x3	998 x 993 x 3	998 x 993 x 3
Module Size: inches (L x W x T)	12.79 x 10.82 x .12	17.75 x 13.77 x .12	26.77 x 13.62 x .12	16.45 x 26.57 x .12	26.77 x 21.25 x .12	23.62 x 26.57 x .12	30.31 x 26.57 x .12	40.94 x 26.77 x .12	30.62 x 39.09 x .12	39.29 x 39.09 x .12	39.29 x 39.09 x .12
Module Weight (BARE)- KG	0.25	0.550	0.8	0.95	1	1.12	1.5	2.1	2.2	2.3	2.3
Module Weight (BARE)- LBS	0.6	1.2	1.8	2.1	2.2	2.5	3.3	4.6	4.9	5.1	5.1

CE UL TÜV RoHS COMPLIANT ISO IEC

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Product Line Sheet

ELECTRICAL SPECIFICATIONS	PES-RGD-10P	PES-RGD-20P	PES-RGD-30P	PES-RGD-40P	PES-RGD-50P	PES-RGD-60P	PES-RGD-80P	PES-RGD-100P	PES-RGD-120	PES-RGD-150P	PES-RGD-160P
Type	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid
Max Power: Pmax, W	10	20	30	40	50	60	80	100	120	150	160
Voltage at Max. Power Point: Vmpp	18	18	18	18	18	18	18	18	18	18	18
Current at Max. Power Point: Impp, A	0.56	1.12	1.67	2.23	2.8	3.34	4.45	5.6	6.67	8	8.4
Open circuit voltage: Voc	22	22	22	22	22	22	22	22	22	22	22
Short circuit current: Isc, A	0.6	1.3	1.8	2.35	3	3.5	4.5	6	6.8	8.6	9
Number of Cells in Series	36	36	36	36	36	36	36	36	36	36	36
Cell Type	POLY	POLY	POLY	POLY	POLY	POLY	POLY	POLY	POLY	POLY	POLY
Nominal Voltage: V DC	12	12	12	12	12	12	12	12	12	12	12
Conversion Efficiency	15-18%	15-18%	15-18%	15-18%	15-18%	15-18%	15-18%	16-18%	16-18%	16-18%	16-18%
Operating Temperature	-40 °C to 85 °C	-40 °C to 85 °C	-40 °C to 85 °C	-40 °C to 85 °C	-40 °C to 85 °C	-40 °C to 85 °C	-40 °C to 85 °C	-40 °C to 85 °C	-40 °C to 85 °C	-40 °C to 85 °C	-40 °C to 85 °C
Temperature Co-efficient of Pmax	- 0.43%/K	- 0.43%/K	- 0.43%/K	- 0.43%/K	- 0.43%/K	- 0.43%/K	- 0.43%/K	- 0.43%/K	- 0.43%/K	- 0.43%/K	- 0.43%/K
Power Tolerance	+ 1 to 2%	+ 1 to 2%	+ 1 to 2%	+ 1 to 2%	+ 1 to 2%	+ 1 to 2%	+ 1 to 2%	+ 1 to 2%	+ 1 to 2%	+ 1 to 2%	+ 1 to 2%
Temperature Co-efficient of Vm	-0.36%/K	-0.36%/K	-0.36%/K	-0.36%/K	-0.36%/K	-0.36%/K	-0.36%/K	-0.36%/K	-0.36%/K	-0.36%/K	-0.36%/K
Temperature Co-efficient of Im	+0.06%/K	+0.06%/K	+0.06%/K	+0.06%/K	+0.06%/K	+0.06%/K	+0.06%/K	+0.06%/K	+0.06%/K	+0.06%/K	+0.06%/K
Maximum System Voltage(Vdc)	600VDC	600VDC	600VDC	600VDC	600VDC	600VDC	600VDC	600VDC	1000VDC	1000VDC	1000VDC
Module Size: mm (L x W x T)	445 x 195 x 25	470 x 345 x 25	650 x 345 x 25	665 x 420 x 35	665 x 530 x 35	665 x 595 x 35	775 x 665 x 35	1005 x 665 x 35	1125 x 665 x 35	1480 x 665 x 35	1480 x 665 x 35
Module Size: inches (L x W x T)	17.52 x 7.67 x 1	18.50 x 13.58 x 1	25.59 x 13.58 x 1	26.18 x 16.53 x 1.37	26.18 x 20.86 x 1.37	26.18 x 23.42 x 1.37	30.51 x 26.18 x 1.37	39.56 x 26.18 x 1.37	44.29 x 26.18 x 1.37	58.26 x 26.18 x 1.37	58.26 x 26.18 x 1.37
Module Weight (BARE)- KG	1.15	1.9	3.3	3.4	4.75	5	6.15	7.5	8	11	11
Module Weight (BARE)- LBS	2.5	4.2	7.3	7.5	10.5	11.0	13.6	16.5	17.6	24.3	24.3
Mounting hole pitch on length-Y mm	225	235	390	450	450	450	450	640	600	900	900

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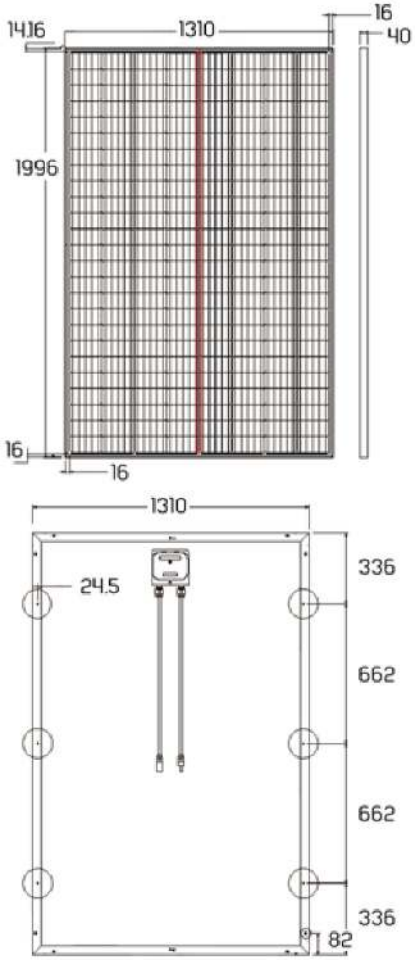
500W 96 Cell Monocrystalline Solar Panel

500W 96 Cell Monocrystalline Panel



POWERSYNC is introducing our paradigm changing 500W 96 Cell Monocrystalline solar PV panel.

Offering the highest wattage panels the industry has ever seen, allowing for a decrease in installation cost. Perfect solution for any size project that may be limited on space and wanting to reduce the amount of weight per watt on panels installed.

This new panel has undergone rigorous testing and certification, including UL certification and pending Tier One status (approval due August 2018).

Specifications

Product Number	500W-96M
Solar Cells:	96 cell monocrystalline
Frame:	Silver anodized aluminum alloy (40mm)
Output Cables:	12 AWG (4mm²) cables with polarized weatherproof connectors, cable length 1.25m (49.21in)
Dimensions	mm(in): 1996 (78.58) x 1310 (51.57) x 40 (1.57)
Approximate Weight:	36.5 kg (80.46 lbs)

Electrical Specification

Nominal Power [Wp] – Pmpp:	500
Voltage at Nominal Power [V] – Vmpp:	53.94
Current at Nominal Power [A] – Impp:	9.27
Open-circuit voltage [V] – Voc:	65.92
Short-circuit current [A] – Isc:	9.77
Module efficiency level [%]:	19.12%

Temperature Coefficients

Voltage:	-0.308 % / °C
Current:	0.032 % / °C
Power:	-0.42 % / °C
NOCT Avg:	45°C ±3

Limits

MAX System Voltage:	DC 1,000V
Operating Module Temperature:	-40°C to +90°C
Storm Resistance / Static Load:	Tested to IEC61215 for loads up to 5400Pa (113 psf). Hail and wind resistant.

Performance under standard test conditions (STC): 1000W / m², 25°C, AM 1.5 / Output Tolerance [%] 0~ +3%

Warranty: 25 Years
Power Output 80% - 25 Years
ePower Output 90% - 10 years

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