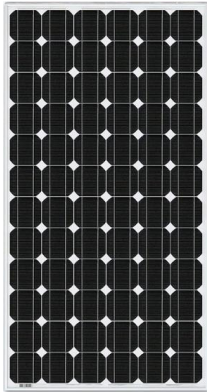


BlueSolar Monocrystalline Panels

www.victronenergy.com



BlueSolar Monocrystalline 280W

- Low voltage-temperature coefficient enhances high-temperature operation.
- Exceptional low-light performance and high sensitivity to light across the entire solar spectrum.
- 25-year limited warranty on power output and performance.
- 2-year Limited warranty on materials and workmanship.
- Sealed, waterproof, multi-functional junction box gives high level of safety.
- High performance bypass diodes minimize the power drop caused by shade.
- Advanced EVA (Ethylene Vinyl Acetate) encapsulation system with triple-layer back sheet meets the most stringent safety requirements for high-voltage operation.
- A sturdy, anodized aluminum frame allows modules to be easily roof-mounted with a variety of standard mounting systems.
- Highest quality, high-transmission tempered glass provides enhanced stiffness and impact resistance.
- Pre wired quick-connect system with MC4 (PV-ST01) connectors. (Except for the 30W panel)



MC4 connectors

| Type | Module Size | Glass size | Weight | Electrical data under STC ⁽¹⁾ | | | | |
|---|---|------------|-----------|--|-------------------|-------------------|----------------------|-----------------------|
| | | | | Nominal Power | Max-Power Voltage | Max-Power Current | Open-Circuit Voltage | Short-circuit Current |
| | | | | P _{MPP} | V _{MPP} | I _{MPP} | V _{oc} | I _{sc} |
| Module | mm | mm | Kg | W | V | A | V | A |
| SPM30-12 | 450 x 540 x 25 | 445 x 535 | 2.5 | 30 | 18 | 1.67 | 22.5 | 2 |
| SPM51-12 | 645 x 540 x 35 | 640 x 535 | 5.2 | 50 | 18 | 2.78 | 22.2 | 3.16 |
| SPM81-12 | 1005 x 540 x 35 | 1000 x 535 | 7 | 80 | 18 | 4.45 | 22.3 | 4.96 |
| SPM101-12 | 1210 x 540 x 35 | 1205 x 535 | 8 | 100 | 18 | 5.56 | 22.4 | 6.53 |
| SPM131-12 | 1110 x 808 x 35 | 1105 x 802 | 11.5 | 130 | 18 | 7.23 | 22.4 | 8.49 |
| SPM190-24 | 1580 x 808 x 35 | 1574 x 802 | 14.5 | 190 | 36 | 5.44 | 43.2 | 5.98 |
| SPM300-24 | 1956 x 992 x 50 | 1950 x 986 | 23.5 | 300 | 36 | 8.06 | 45.5 | 8.56 |
| Module | SPM30-12 | SPM51-12 | SPM81-12 | SPM101-12 | SPM131-12 | SPM190-24 | SPM300-24 | |
| Nominal Power (±3% tolerance) | 30W | 50W | 80W | 100W | 130W | 190W | 300W | |
| Cell type | Monocrystalline | | | | | | | |
| Number of cells in series | 36 | | | | 72 | | | |
| Maximum system voltage (V) | 1000V | | | | | | | |
| Temperature coefficient of P _{MPP} (%) | -0.48/°C | -0.48/°C | -0.48/°C | -0.48/°C | -0.48/°C | -0.48/°C | -0.48/°C | -0.48/°C |
| Temperature coefficient of V _{oc} (%) | -0.34/°C | -0.34/°C | -0.34/°C | -0.34/°C | -0.34/°C | -0.34/°C | -0.34/°C | -0.34/°C |
| Temperature coefficient of I _{sc} (%) | +0.037/°C | +0.037/°C | +0.037/°C | +0.037/°C | +0.05/°C | +0.037/°C | +0.037/°C | +0.037/°C |
| Temperature Range | -40°C to +85°C | | | | | | | |
| Surface Maximum Load Capacity | 200kg/m ² | | | | | | | |
| Allowable Hail Load | 23m/s, 7.53g | | | | | | | |
| Junction Box Type | PV-JH03-2 | PV-JH02 | PV-JH02 | PV-JH02 | PV-RH0301 | PV-JH03 | PV-JH200 | |
| Connector Type | MC4 | | | | | | | |
| Length of Cables | 450mm | 750mm | 900mm | 900mm | 900mm | 900mm | 1000mm | |
| Output tolerance | +/-3% | | | | | | | |
| Frame | Aluminium | | | | | | | |
| Product warranty | 2 years | | | | | | | |
| Warranty on electrical performance | 10 years 90% + 25 years 80% of power output | | | | | | | |
| Smallest packaging unit | 1 panel | | | | | | | |
| Quantity per pallet | 40 panels | 40 panels | 20 panels | 20 panels | 20 panels | 20 panels | 20 panels | |

¹⁾ STC (Standard Test Conditions): 1000W/m², 25°C, AM (Air Mass) 1.5