

220 Watt

POLY-CRYSTALLINE SOLAR PANEL

Features

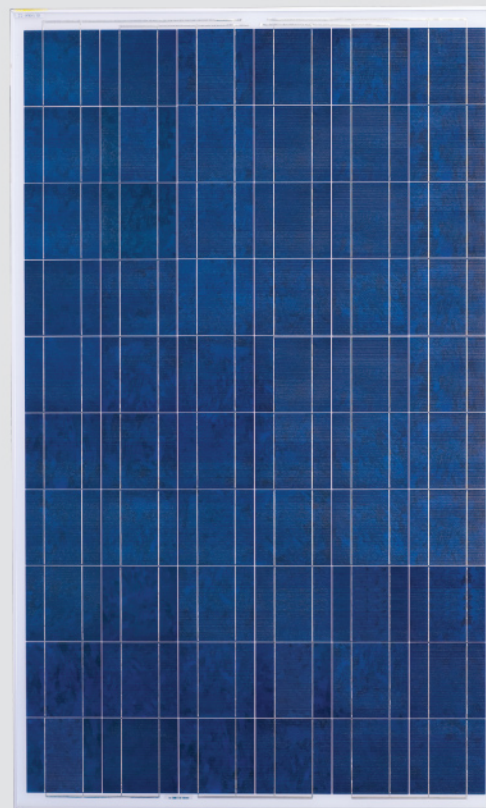
- High conversion efficiency based on innovative photovoltaic technologies
- Withstands high wind-pressure and snow load, and extreme temperature variations
- Low voltage-temperature coefficient allows higher power output at high-temperature condition
- Outstanding low-light performance

Quality and Safety

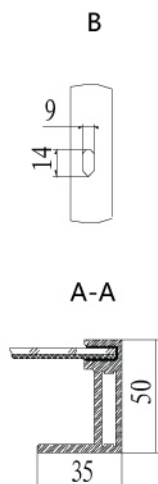
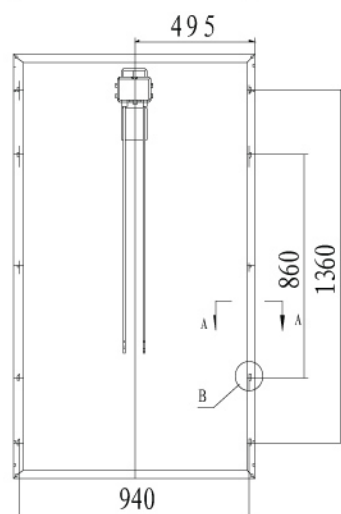
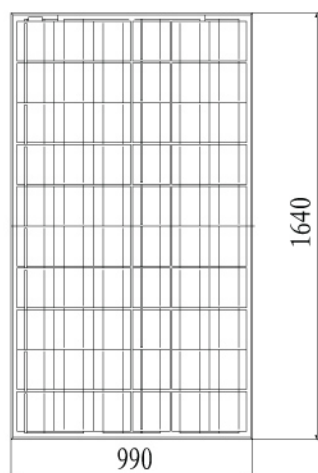
- 25-year power output transferable warranty
- ISO 9001:2000 (Quality Management System) and ISO 14001:2004 (Environmental Management System) certified factories manufacturing world class products
- Proven materials, tempered front glass, and a sturdy anodized aluminum frame allow modules to operate reliably in all kinds of complex configuration
- Ultra reliable bypass diodes prevent damage through overheating due to shaded or defective cells
- Innovative, environmentally packing method ensures modules arrived in perfect condition

Recommended Applications

- Residential roof top systems
- On-grid utility systems
- On-grid commercial systems



Type	ZD230-20P	ZD225-20P	ZD220-20P	ZD215-20P	ZD210-20P	ZD205-20P
Maximum Power at STC (P _{max})	230Wp	225Wp	220Wp	215Wp	210Wp	205Wp
Open Circuit Voltage(V _{oc})	36.7V	36.6V	36.4V	36.3V	36.1V	35.9V
Short-Circuit Current(I _{sc}) [A]	8.54A	8.46A	8.32A	8.18A	8.11A	8.05A
Optimum Operating Voltage(V _{mp}) [V]	29.4V	29.2V	29V	28.8V	28.5V	28.4V
Optimum Operating Current(I _{mp}) [A]	7.83A	7.71A	7.59A	7.47A	7.37A	7.22A
Temperature range	-40 °C to +90 °C	-40 °C to +90 °C	-40 °C to +90 °C	-40 °C to +90 °C	-40 °C to +90 °C	-40 °C to +90 °C
Maximum system voltage	1000V	1000V	1000V	1000V	1000V	1000V
Maximum Series Fuse Rating	15A	15A	15A	15A	15A	15A
Power Tolerance	±3%	±3%	±3%	±3%	±3%	±3%



Mechanical Characteristics

Solar Cell	Polycrystalline solar cells (156mm×156mm)
No. of Cells	6×10 pieces
Dimension	1640×990mm (L×W)
Front glass	White toughened safety glass, 3.2 mm
Frame	Anodised aluminium profile
Junction box	with 6 bypass diodes
Cable	length 900 mm, 1×4 m ²
Cell encapsulation	EVA (Ethylene-Vinyl-Acetate)
Back	composite film
Maximum surface load capacity	tested up to 5,400 Pa according to IEC 61215 (advanced test)
Hail	maximum diameter of 25 mm with impact speed of 23 m·s ⁻¹

Temperature Coefficients

Nominal Operating Cell Temperature(NOCT)	45°C±2°C
Voltage temperature coefficients	-0.37%/K
Current temperature coefficients	+0.03%/K
Power temperature coefficients	-0.52%/K

The electrical data relates to standard test conditions [STC]: 1,000 W/m²; AM 1.5; 25°C. Performance deviation of P_{mp}: -/+ 3%, performance deviation of V_{oc}[V], I_{sc}[A], V_{mp} [V] and I_{mp} [A]: -/+ 10%. Certified in accordance with IEC 61215, and IEC 61730-1/2.