

275 W - 285 W POLY-CRYSTALLINE SOLAR MODULE



Enhanced Reliability and Power Output

- ✓ More internal reflection, better utilization of sunlight, more power output
- ✓ Enhanced module efficiency up to 17.2 %
- ✓ Innovative half-cut cell technology
- ✓ Less power output loss with new module circuit design
- ✓ Lower internal current, excellent anti-hot-spot performance
- ✓ Low NOCT & low temperature coefficient

Robust Design

- ✓ Strong anodized aluminum alloy frame
- ✓ Certified by TÜV to withstand up to 2400 Pa wind load and up to 5400 Pa snow load
- ✓ Easy installation and minimal maintenance with compatibility to industry standard inverters and mounting systems

QUALIFICATIONS AND CERTIFICATES

CE-Compliant, IEC 61215 (Ed.1) application class A, TÜV Safety Class II, UL 1703



WARRANTY

10 Years: Manufacturing Warranty
 12 Years Warranty: 90% Power Output
 25 Years Warranty: 80% Power Output

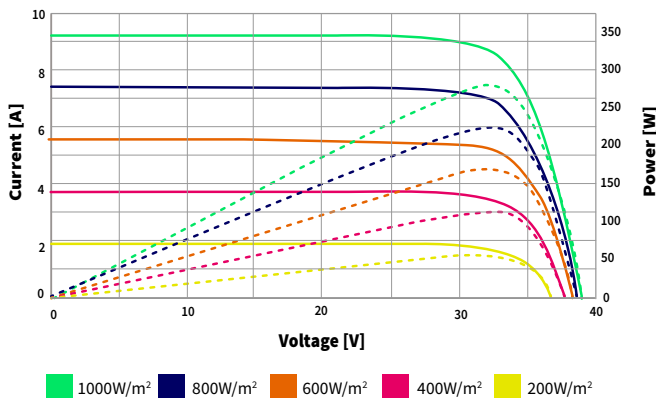
MECHANICAL CHARACTERISTICS

| | |
|--------------------------|--|
| Cell type | Poly-crystalline |
| Cell Dimensions | 156.75 × 156.75 mm, half-cut |
| Cell Arrangement | 60 (6 × 10) |
| Weight | 19.5 kg |
| Module Dimensions | 1675 × 992 × 35 mm (also available: 1675 × 992 × 30 mm) |
| Glass | 3.2 mm, high transmission, tempered |
| Connector | MC4 compatible |
| Cable Length | 300 mm |
| Cable Cross-section Size | 4 mm ² |
| No. of Bypass Diodes | 3/6 |

ELECTRICAL CHARACTERISTICS

| SOLAR CELLS | | POLY-CRYSTALLINE 156.75 × 156.75MM 60 PCS. (6×10) – 5 BUS BARS | | |
|--|---------------------------------|--|------------|--|
| Model | GSP 275 HC | GSP 280 HC | GSP 285 HC | |
| Performance at Standard Test Conditions (STC): 1000 W/m², 25°C, AM 1.5, power tolerance -/+3 % | | | | |
| Maximum Power (Pmax) | 275 Wp | 280 Wp | 285 Wp | |
| Operating Voltage (Vmpp) | 31.7 V | 32.0 V | 32.3 V | |
| Operating Current (Impp) | 8.69 A | 8.76 A | 8.83 A | |
| Open-Circuit Voltage (Voc) | 38.7 V | 39.0 V | 39.3 V | |
| Short-Circuit Current (Isc) | 9.17 A | 9.25 A | 9.30 A | |
| Module Efficiency | 16.6 % | 16.9 % | 17.2 % | |
| Performance at Nominal Operating Cell Temperature (NOCT) : 800 W/m², 20°C, AM 1.5, wind speed 1m/s | | | | |
| Maximum Power (Pmax) | 203 Wp | 207 Wp | 210 Wp | |
| Operating Voltage (Vmpp) | 29.2 V | 29.4 V | 29.7 V | |
| Operating Current (Impp) | 6.97 A | 7.04 A | 7.08 A | |
| Open-Circuit Voltage (Voc) | 35.7 V | 36.0 V | 36.2 V | |
| Short-Circuit Current (Isc) | 7.42 A | 7.49 A | 7.53 A | |
| Temperature Coefficient | | | | |
| Temperature Coefficient at Pmax | - 0.40 % / °C | | | |
| Temperature Coefficient at Voc | - 0.31 % / °C | | | |
| Temperature Coefficient at Isc | + 0.06 % / °C | | | |
| Nominal Operating Cell Temperature | 45 ± 2 °C | | | |
| Operating conditions | | | | |
| Maximum System Voltage | DC1000 V (IEC) / DC1500 V (IEC) | | | |
| Operating Temperature | -40 °C to 85 °C | | | |
| Maximum Series Fuse | 15 A | | | |
| Static Loading | 5400 Pa | | | |
| Conductivity at Ground | ≤ 0.1 Ω | | | |
| Resistance | ≥ 100 MΩ | | | |
| Safety Class | II | | | |

I-V Curves at different irradiance



I-V Curves at different temperature

