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EnergyPal

Solar Panel Guide Specification Data Sheet

**G Solar
GSP 275-285W HC
GSP 285 HC**

Also available on the web at
EnergyPal.com/g-solar-solar-panels/gsp-285-hc

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

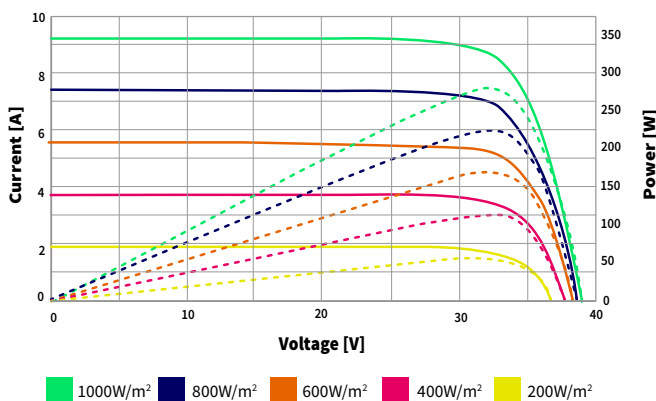
MECHANICAL CHARACTERISTICS

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

