

GSP 280W/285W/290W



- ✓ Excellent module efficiency– up to 17.83%
- ✓ Positive power tolerance 0/+5W
- ✓ Bankable module
- ✓ PID free
- ✓ Advanced surface texturing
- ✓ Resistance to sand and dust abrasion
- ✓ Safety for salt mist and ammonia corrosion
- ✓ Safety for fire risk
- ✓ Outstanding power output capability at low irradiance
- ✓ Triple 100% EL tests
- ✓ 3800 Pa wind load and 5400 Pa snow load (900 kg snow load per module); 35 mm hail stones at 97 km/h

QUALIFICATIONS AND CERTIFICATES

CE-Compliant, IEC 61215-1 (ed.1), IEC 61215-1-1 (ed.1), IEC 61215-2 (ed.1)
IEC 61730-1 (ed.2), IEC 61730-2 (ed.2), application class A, Safety Class II, UL 1703



WARRANTY

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

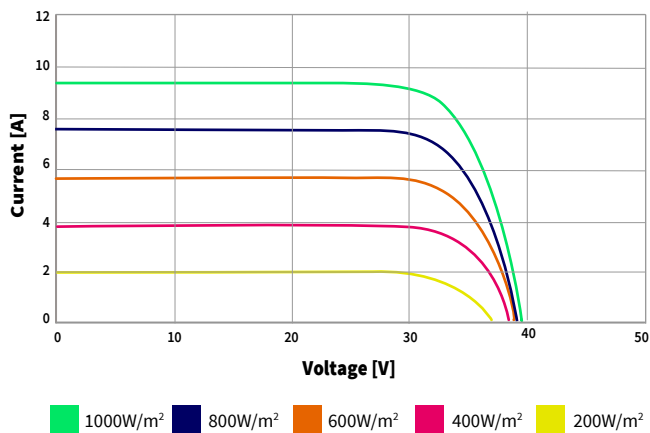
MECHANICAL CHARACTERISTICS

Solar Cells	Poly-crystalline silicon
No. of Cells	60 (6 × 10)
Module Dimensions	1640 × 992 × 35
Weight	18.5 kg
Front Glass	3.2 mm high transmittance, reinforced glass
Backsheet	Anti-aging film
Frame	Anodized aluminum alloy
Junction Box	IP67
Output Cables	4.0 mm ² PV special cable
Connectors	MC4 compatible

ELECTRICAL CHARACTERISTICS

Model	GSP 280	GSP 285	GSP 290
Performance at Standard Test Conditions (STC): 1000 W/m², 25°C, AM 1.5			
Maximum Power (Pmax)	280 W	285 W	290 W
Operating Voltage (Vmpp)	31.75 V	32.10 V	32.44 V
Operating Current (Impp)	8.82 A	8.88 A	8.94 A
Open-Circuit Voltage (Voc)	39.91 V	39.27 V	39.69 V
Short-Circuit Current (Isc)	9.30 A	9.37 A	9.44 A
Module Efficiency	17,21%	17,52%	17,83%
Performance at Nominal Operating Cell Temperature (NOCT) : 800 W/m², 20°C, AM 1.5, wind speed 1m/s			
Maximum Power (Pmax)	207 W	211 W	215 W
Operating Voltage (Vmpp)	29.79 V	30.06 V	30.33 V
Operating Current (Impp)	6.95 A	7.02 A	7.09 A
Open-Circuit Voltage (Voc)	36.97 V	37.43 V	37.89 V
Short-Circuit Current (Isc)	7.36 A	7.41 A	7.46 A
Module Efficiency	16.50 %	16.80 %	17.41 %
Power Tolerance		0 / +5 W	
Maximum System Voltage		1000 V	
Temperature Characteristics			
Temperature Coefficient at Pmax		- 0.394 % / °C	
Temperature Coefficient at Voc		- 0.307 % / °C	
Temperature Coefficient at Isc		0.04% / °C	
Nominal Operating Cell Temperature		45 ± 2 °C	
Operating Temperature		-40 °C to 85 °C	

Current-Voltage Curve (290 W)



Power-Voltage Curve (290 W)

