

# STANDARD SOLAR PANELS

GermanSolar's standard solar panels are high efficiency, convenient, and easy to use



# **POWERLINE**

## POLY 60 CELL SOLAR PANELS PANELS

GSP-275W 280W 285W 290W 295W

GermanSolar is a specialist in customization, introducing colored glass, frames, and back-sheet material and shapes to aesthetically match your ideas with the prospective application. With innovative technology and design, GermanSolar offers high quality modules with enhanced aesthetic appearance for building structures and facades. By providing outstanding customization options, GermanSolar supports your required project needs with colored and shaped panels of your choice, and consults with you in choosing the right size, thickness, shape, and color to complement the design of your application and your building.

## **FEATURES**



Best priceperformance ratio



Positive power of up to +5.00 Wp



EL tested and micro cracks inspected



Fully automated production line with German quality engineering and design standards



Better performance in diffused sunlight and high temperature



High ammonia & salt mist resistant certified, and PID-free



Withstands wind loads up to 2400Pa / heavy snow loads up to 5400Pa



12-year limited product warranty



25-year linear performance warranty











IEC61215:
CRYSTALLINE SILICON TERRESTRIAL
PHOTOVOLTAIC (PV) MODULES – DESIGN
QUALIFICATION AND TYPE APPROVAL
IEC61730:
Photovoltaic (PV) module safety qualificati



EN IEC 61730:
PHOTOVOLTAIC (PV) MODUL
SAFETY QUALIFICATION
2014/35/EU:
THE LOW VOLTAGE DIRECTIV

STANDARD SOLAR PANELS



ELECTRICAL DATA					
Nominal Max. Power (Pmax)* (W)	275	280	285	290	295
Open Circuit Voltage (Voc) (V)	38.46	38.65	38.84	39.03	39.22
Short Circuit Current (Isc) (A)	9.00	9.10	9.20	9.31	9.41
Max. Power Voltage (Vmpp) (V)	32.52	32.73	32.94	33.15	33.36
Max. Power Current (Impp) (A)	8.46	8.55	8.65	8.75	8.84
Module Efficiency (%)	16.48	16.78	17.08	17.38	17.68
Power Tolerance (%)			± 3		
Power Temperature Coeffcient y			-0.40 % / °C		
Current Temperature Coeffcient α			+0.05 % / °C		
Voltage Temperature Coeffcient β			-0.30 % / °C		

\*STC: Irradiance 1000 W /  $m^2$ , cell temperature 25 °C, AM = 1.5, Tolerance of Pmax is within + / - 3 %.

NOCT **					
Nominal Max. Power (Pmax)* (W)	208	212	215	219	223
Open Circuit Voltage (Voc) (V)	36.46	36.62	36.78	36.94	37.10
Short Circuit Current (Isc) (A)	7.25	7.33	7.41	7.49	7.57
Max. Power Voltage (Vmpp) (V)	30.52	30.73	30.94	31.15	31.36
Max. Power Current (Impp) (A)	6.81	6.89	6.96	7.04	7.11
NMOT (Nominal Module Operating Temperature) (°C)			41 ± 3		

\* NOCT: Irradiance at 800 W /  $\rm m^2$ , ambient temperature 20 °C, Wind Speed 1 m / s. AM = 1.5.

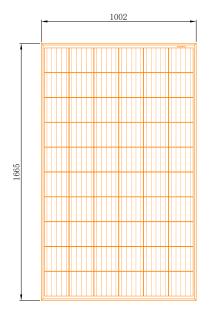
#### **MECHANICAL DATA** 1665 × 1002 × 30 Dimensions (mm) Weight (kg) 18 Solar Cells (mm) Poly 157 × 157 Front Glass 3.2 mm glass Backsheet White or black Frame Anodised aluminum alloy Junction Box IP68, 3 diodes Cables 4 $\mathrm{mm^2}$ , 900 mm in length, length can be customized / UV resistant Connectors MC4 original / MC4 compatible

PACKAGIN	G
Modules Per Pallet (pcs)	36
Pallets Per Container (pcs)	26
Module quantity per 40' container (pcs)	936

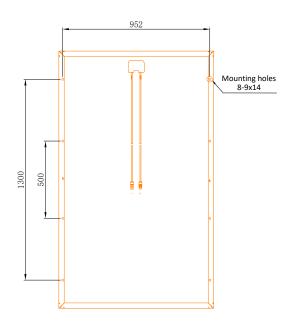
OPERATING CONDITIONS		
Max. System Voltage (V)	1500	
Operating Temperature (°C)	-40 ~ +85	
Max. Series Fuse Rating (A)	30	
Front Side Maximum Static Loading/ Rear Side Maximum Static Loading (Pa)	5400 / 2400	

## Design (mm)

### Front View



### **Back View**



### LINEAR PERFORMANCE WARRANTY

12-Year Product Warranty | 25-Year Performance Warranty

