

100W 12V Solar Module

BLACKWELL
New Back-Contact Range

Performance through Design

15% higher energy efficiency as compared to conventional panels from two innovative technologies :

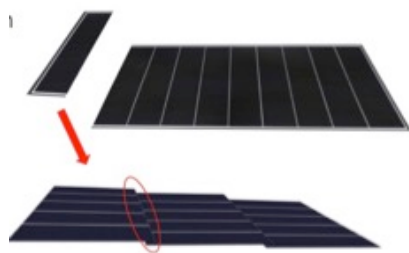
- **PERC Cell Technology (Passivated Emitter Rear Cell)**
- **Shingled Cell Module Design**

PERC cells absorb more light than conventional cells which improves module performance under low light conditions.

Shingled Cell Module Design :

The sliced cells connect to each other through conductive glue, while sub-strings are further connecting both in parallel and in serial.

- Increased active area
- Solid electrical connection
- Reduced ohmic resistance
- No reflective metal lines on the cells
- Increased efficiency
- 2°C lower solar module operation temperature enable longer panel life and better yield per power



Two bypass diodes on both sides of the module and the module design connection both in serial and in parallel limit the Hot Spot risks under partially shielded exposure conditions.

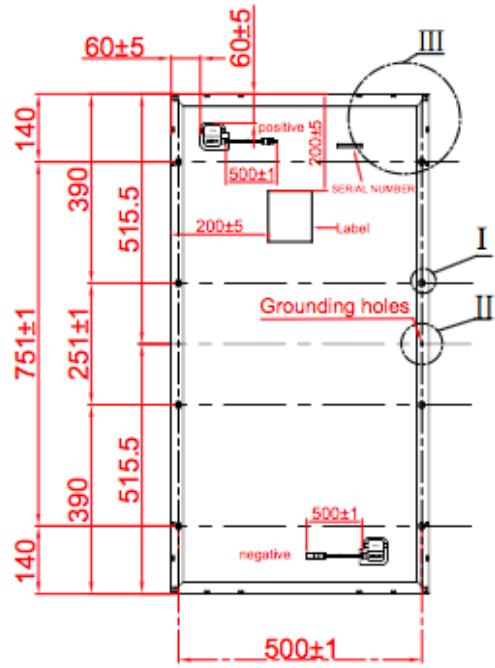
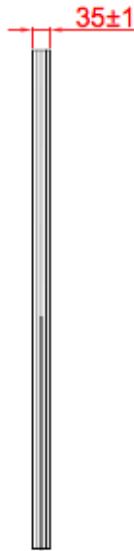
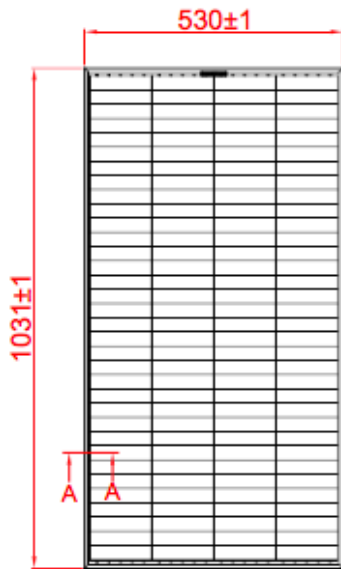


ON-GRID & OFF-GRID APPLICATIONS

Allow different power modules combination on one installation

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Electrical Specifications

	12V
Model Type	GW-ES100A
Peak Power (Pmax)	100W
Module Efficiency	18,30%
Maximum Power Voltage (Vmp)	18,2V
Maximum Power Current (Imp)	5,50A
Open Circuit Voltage (Voc)	22,5V
Short Circuit Current (Isc)	5,70A
Power Tolerance	0% / + 4,99%
Maximum System Voltage	1000V
Nominal Operating Cell Temp.	45 °C (+/- 2)

Mechanical Specifications

Unite: mm

Cell type	Monocrystalline
Number of cells	136 (34 x 4)
Weight	5,8kg
Dimensions	1031 x 530 x 35
Frame	black anodized aluminum
Junction Box	IP67
Cables	2 x 4.0 mm ² , cable length: 1000 mm
Connectors	MC4 compatible

Temperature Coefficients

Power	-0,40%/ °C
Voltage	-0,32%/ °C
Current	+0,05%/ °C

Warranties & Certifications

Garanties	2 years product warranty, 10 years limited power warranty of 90% of the minimum specified power rating
Certifications	CE

The specifications on this documentation are subject to change without notice