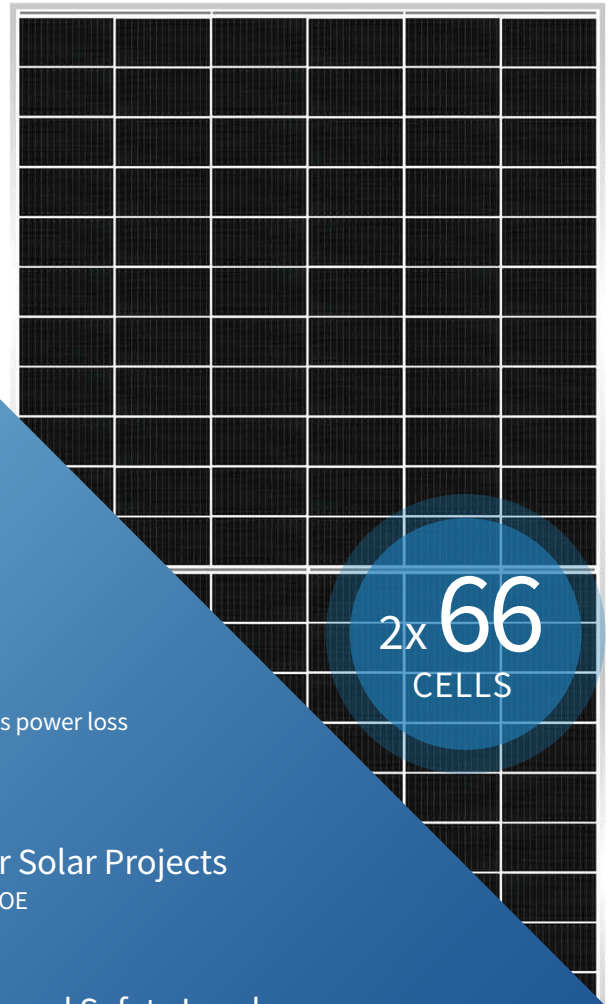


GIWA 5

Bifacial HJT Solar Module (Half-cut)

690-720W



Higher Power Output

The output power is as high as 720W
Bifaciality is up to 90%
Provide up to 25% extra power from rear side



Less Power Loss

Unique half-cut cell technology reduces power loss
Anti-PID & LID
Promise a higher yield for PV system



Ideal Choice For Solar Projects

Lower BOS / Lower LCOE
Improved ROI



Enhanced Safety Level

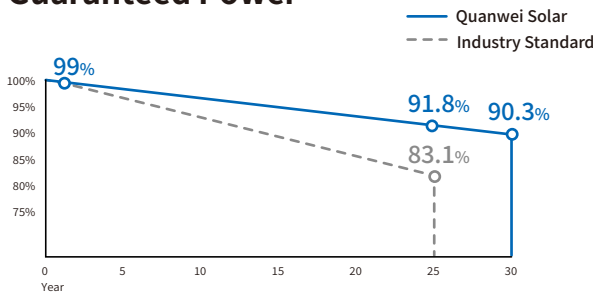
IP68 water resistance
Long-term weather endurance



Excellent Linear Power Warranty

Average annual degradation below 0.3% from 2nd year to 30th year.
At least 5% higher power output than P-type module after 25 years.

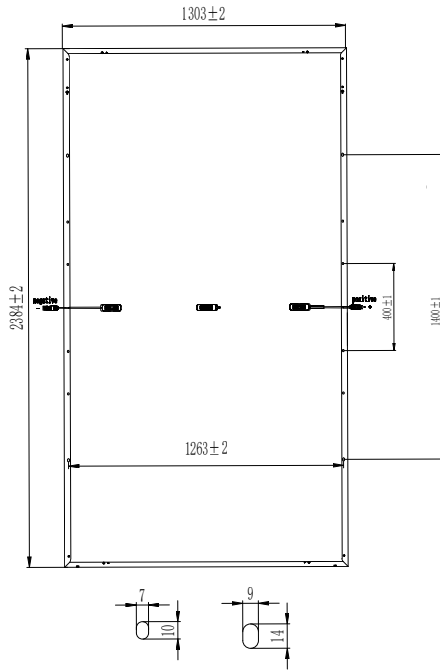
Guaranteed Power



15 years Product Warranty | **30 years** Linear Performance Warranty



TECHNICAL DRAWINGS



ELECTRICAL CHARACTERISTICS

Model/QWBDN132-	690W	695W	700W	705W	710W	715W	720W
Testing Condition: STC Maximum Power (Pmax/W)	690	695	700	705	710	715	720
Operating Voltage (Vmpp/V)	42.55	42.77	43.00	43.23	43.46	43.68	43.91
Operating Current (Impp/A)	16.22	16.25	16.28	16.31	16.34	16.37	16.40
Open-Circuit Voltage (Voc/V)	49.91	50.11	50.31	50.51	50.71	50.91	51.11
Short-Circuit Current (Isc/A)	17.17	17.19	17.21	17.23	17.25	17.27	17.29
Module Efficiency (%)	22.21	22.37	22.53	22.70	22.86	23.02	23.18

STC: Irradiance 1000W/m², Spectra at AM1.5, Module Temperature 25°C.
Power Output Tolerance: 0~+5W, Test Uncertainty for Pmax: ±3%

REAR SIDE POWER GAIN(REFERENCE TO 700W FRONT)

Pmax Gain	5%	10%	15%	20%	25%
Pmax/W	735	770	805	840	875
Vmpp/V	43.00	43.00	43.03	43.03	43.03
Impp/A	17.10	17.91	18.71	19.53	20.34
Voc/V	50.31	50.31	50.33	50.33	50.33
Isc/A	17.36	18.23	18.95	19.78	20.66

MECHANICAL CHARACTERISTICS

Solar Cell	HJT 210 x 105mm
No. of Cells	132 (2 x 66)
Module Dimensions	2384 x 1303 x 35mm (93.86 x 51.30 x 1.38 inches)
Weight	38.5kg
Front Glass	2.0mm AR Coating Semi-tempered Glass
Back Glass	Glazed Semi-tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68, 3 Bypass Diodes
Output Cables	4mm ² , 250mm(+)/350mm(-) or Customized Length
Connectors	MC4

APPLICATION CONDITIONS

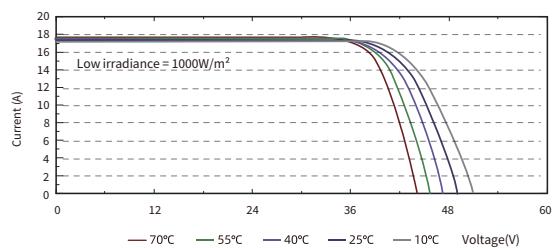
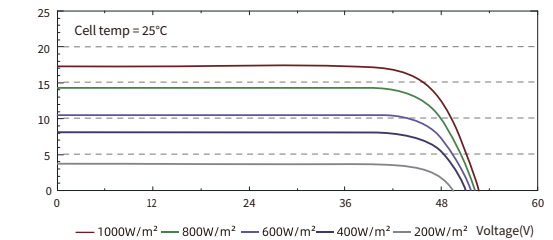
Maximun System Voltage	DC1500V
Operating Temperature	-40°C~+85°C
Maximun Series Fuse	30A
Safety Protection Class	Class II
Mechanical Load	Front side 5400Pa, Back side 2400Pa
Refer. Bifaciality Factor	85%±5%

TEMPERATURE CHARACTERISTICS

Temperature Coefficient of Pmax	-0.26%/°C
Temperature Coefficient of Voc	-0.22%/°C
Temperature Coefficient of Isc	+0.047%/°C
Nominal Module Operating Temperature (NOCT)	42±2°C

I-V CURVE

QWBDN132-700



PACKING CONFIGURATION

Type of Shipping	Platform Trailer (17.5m)	Container 40'HC
Pieces/Pallet	31	31
Total Amount	868	558