

GIWA 3

Bifacial TOPCon Solar Module (half-cut)

410-430W



Higher Power Output

The output power is as high as 430W
Provide up to 25% extra power from rear side



Less Loss

Innovative non-destructive cutting technology
/reducing the risk of hidden cracks
Promise a higher yield for PV system



Enhanced Safety Level

Passed Fire test Class A
IP68 water resistant for long-term weaher endurance



Outstanding Durability

Rarely Affected By Light Induced Degradation
Resistant to harsh environments such as salt mist, sand
and dust, ammonia gas, etc.



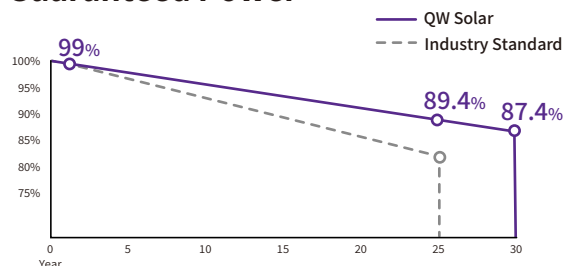
2x54
CELLS

5.0%

Excellent Linear Power Warranty

Average annual degradation below 0.4% from
2nd year to 30th year.
At least 5.0% higher power output than P-type
module after 25 years.

Guaranteed Power

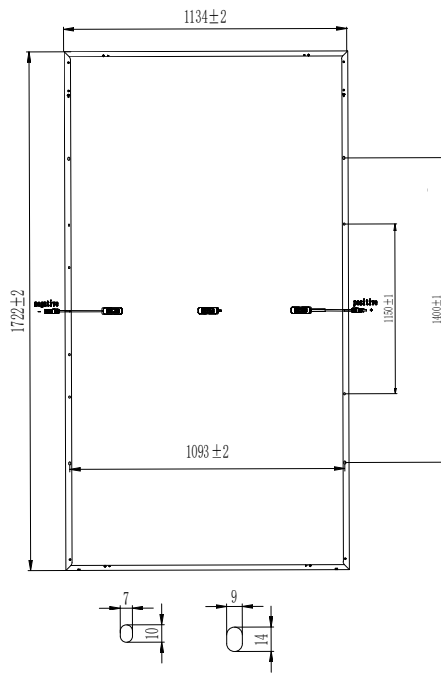


15 years Product Warranty | **30 years** Linear Performance Warranty

EN EN-20230731



TECHNICAL DRAWINGS



ELECTRICAL CHARACTERISTICS

Model/QWBDT108-	410W	415W	420W	425W	430W
Testing Condition: STC Maximum Power (Pmax/W)	410	415	420	425	430
Operating Voltage (Vmpp/V)	31.28	31.49	31.70	31.91	32.12
Operating Current (Impp/A)	13.11	13.18	13.25	13.32	13.39
Open-Circuit Voltage (Voc/V)	37.90	38.11	38.32	38.57	38.74
Short-Circuit Current (Isc/A)	13.84	13.92	14.00	14.08	14.16
Module Efficiency (%)	21.00	21.25	21.51	21.76	22.02

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

REAR SUDE POWER GAIN(REFERENCE TO 420W FRONT)

Pmax Gain	5%	10%	15%	20%	25%
Pmax/W	455	477	483	504	525
Vmpp/V	32.70	32.70	31.70	31.70	31.70
Impp/A	13.91	14.58	15.24	15.90	16.56
Voc/V	38.32	38.32	39.32	39.32	39.32
Isc/A	14.07	15.40	16.10	16.80	17.50

MECHANICAL CHARACTERISTICS

Solar Cell	Mono-Crystalline Silicon 182*91mm
No. of Cells	108(6*18)
Module Dimensions	1722*1134*30mm(67.80*44.65*1.18inches)
Weight	23kg
Front Glass	2.0mm AR Coating Semi-tempered Glass
Back Glass	1.6mm Black Grid Glass
Frame	Anodized Aluminium Alloy(Black)
Junction Box	IP68, 3 Bypass Diodes
Output Cables	4mm ² , 300mm(+)/300mm(-) or Customized Length
Connectors	MC4

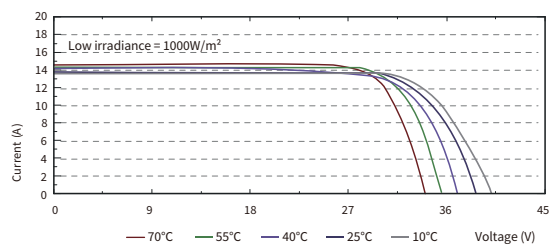
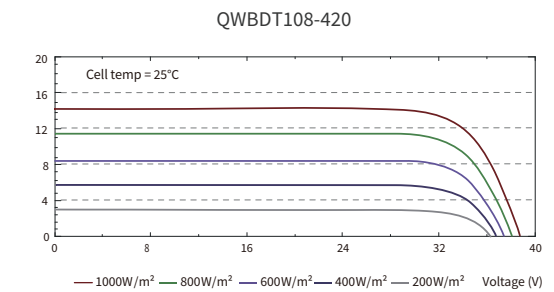
APPLICATION CONDITIONS

Maximun System Voltage	DC1500V
Operating Temperature	-40°C~+85°C
Maximun Series Fuse	25A
Safety Protection Class	Class II
Mechanical Load	Front side 5400Pa, Back side 2400Pa
Refer. Bifaciality Factor	80%±5%

TEMPERATURE CHARACTERISTICS

Temperature Coefficient of Pmax	-0.34%/°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of Isc	+0.046%/°C
Nominal Module Operating Temperature (NOCT)	42±2°C

I-V CURVE



PACKING CONFIGURATION

Type of Shipping	Platform Trailer (17.5m)	Container 40'HC
Pieces/Pallet	36	36
Total Amout	1332	936