



## PNGNH78-DGB8 610-635 Watt

N-type Mono TOPCon

### Key Features



#### Multi Busbar Solar Cell

Stronger current collection ability, Special circuit design with much lower hot spot temperature;



#### PID Resistant

Excellent PID resistance at 96 hours (85°C/85%) test, and also can be improved to meet higher standards for the particularly harsh environment;



#### Anti-Crack

Excellent anti-microcracking performance with more balanced interior stress;



#### Module efficiency up to 22.72%

Half cell structure brings low resistance characteristic, higher lifetime generating capacity, simultaneously lower annual power attenuation;



#### Low-Light Performance

Excellent power generation performance under Low-Light condition due to multi busbar; better shading response benefit from half cell module;

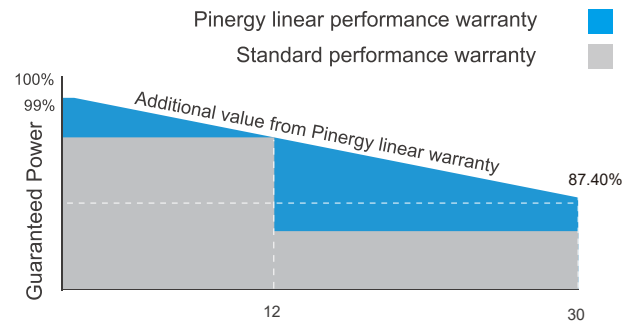


#### Strength and Durability

Certified for 5400Pa snow and 2400Pa Wind loads test;

### Linear Performance Warranty

12 Years Product Warranty · 30 Years Linear Power Warranty



### Certifications

- IEC 61215, IEC 61730, CE, CQC
- ISO9001: 2015: Quality management system
- ISO14001: 2015: Environmental management system
- ISO45001: 2018: Occupational health and safety management system



## Electrical Specifications

Module Type: PNGNH78-DGB8-xxx,(xxx=Pmax)

Module Type	610		615		620		625		630		635	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Max. Power (Pmax/W)	610	460	615	464	620	467	625	471	630	475	635	479
Voltage at Max. Power (Vmp/V)	45.56	42.22	45.66	42.33	45.76	42.44	45.86	42.55	45.96	42.66	46.06	42.77
Current at Max. Power (Imp/A)	13.39	10.89	13.47	10.95	13.55	11.01	13.63	11.07	13.71	11.13	13.79	11.19
Open circuit voltage (Voc/V)	55.27	52.45	55.42	52.6	55.57	52.74	55.72	52.88	55.87	53.02	56.02	53.16
Short circuit current (Isc/A)	14.04	11.38	14.11	11.44	14.18	11.50	14.25	11.56	14.32	11.62	14.39	11.68
Module efficiency (%)	21.82%		22.00%		22.18%		22.36%		22.54%		22.72%	
Power Tolerance (W)	0~+5											

Standard Test Condition (STC): Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, AM1.5

Nominal Module Operating Temperature (NOCT): Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, AM1.5, Wind Speed 1m/s

## Bifacial Output-rearside Power Gain

5%	Maximum power (Pmax)	640.50	645.75	651.00	656.25	661.50	666.75
	Module Efficiency STC (%)	22.91%	23.10%	23.29%	23.48%	23.66%	23.85%
15%	Maximum power (Pmax)	701.50	707.25	713.00	718.75	724.50	730.25
	Module Efficiency STC (%)	25.10%	25.30%	25.51%	25.71%	25.92%	26.12%
25%	Maximum power (Pmax)	762.50	768.75	775.00	781.25	787.50	793.75
	Module Efficiency STC (%)	27.28%	27.50%	27.73%	27.95%	28.17%	28.40%

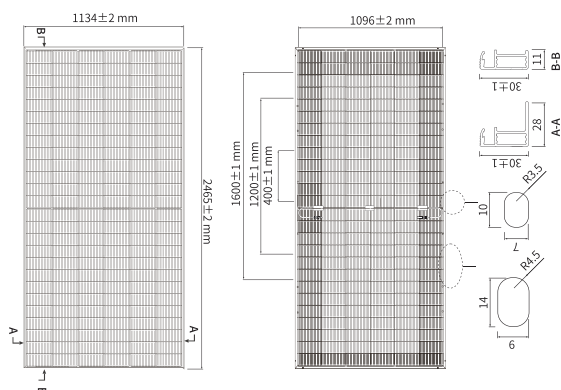
## Mechanical Specifications

Cell Type	N-Type MONO
No. of Cells	156 (78x2)
Dimension	2465x1134x30 mm
Weight	34.0kg
Glass	Dual glass,2.0mm coated tempered glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68, 3 diodes
Output Cables	4mm <sup>2</sup> , Length 300mm or customized
Connector type	MC4 compatible

## Packaging Configurations

Per Pallet	36 pcs
Per 40' HQ Container	576 pcs

## Engineering Drawings



## Temperature Characteristics

NOCT Temperature	44°C ±2°C
Temperature Coefficient (Pmax)	-0.36%/°C
Temperature Coefficient (Voc)	-0.28%/°C
Temperature Coefficient (Isc)	0.05%/°C

## Maximum Ratings

Maximum system voltage (IEC)	1500V DC
Snow / Wind	5400Pa / 2400Pa
Operating Temperature	-40°C ~ +85°C
Maximum series fuse rating	30A

## Curve & Temperature Dependence

