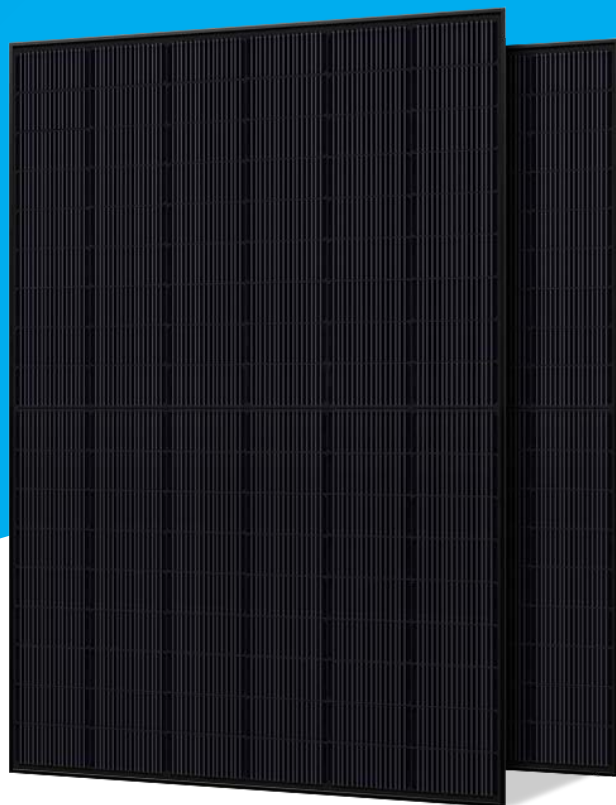


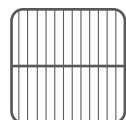


PNGNH54-DGB8(182) 435-455 Watt (FB)

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 23.30%

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;

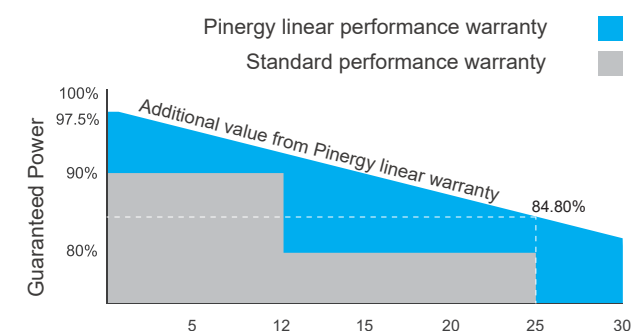


Strength and Durability

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: PNGNH54-DGB8-xxx , (xxx=Pmax)

Module Type	435		440		445		450		455	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Max. Power (Pmax/W)	435	330	440	334	445	338	450	342	455	346
Voltage at Max. Power (Vmp/V)	32.15	30.52	32.35	30.72	32.55	30.92	32.75	31.12	32.95	31.32
Current at Max. Power (Imp/A)	13.53	10.81	13.60	10.87	13.67	10.93	13.74	10.99	13.81	11.05
Open circuit voltage (Voc/V)	38.75	36.78	38.95	36.98	39.15	37.18	39.35	37.38	39.55	37.58
Short circuit current (Isc/A)	14.22	11.38	14.29	11.45	14.36	11.52	14.43	11.59	14.50	11.65
Module efficiency (%)	22.28%		22.53%		22.79%		23.04%		23.30%	
Power Tolerance (W)					0~+5					

Standard Test Condition (STC): Irradiance 1000W/m², Cell Temperature 25 °C, AM1.5

Nominal Module Operating Temperature (NOCT): Irradiance 800W/m², Ambient Temperature 20 °C, AM1.5, Wind Speed 1m/s

Bifacial Output-rearside Power Gain

	Maximum power (Pmax)	456.75	462.00	467.25	472.50	477.75
5%	Module Efficiency STC (%)	23.39%	23.66%	23.93%	24.20%	24.47%
15%	Maximum power (Pmax)	500.25	506.00	511.75	517.50	523.25
	Module Efficiency STC (%)	25.62%	25.91%	26.21%	26.50%	26.80%
25%	Maximum power (Pmax)	543.75	550.00	556.25	562.50	568.75
	Module Efficiency STC (%)	27.85%	28.17%	28.49%	28.81%	29.13%

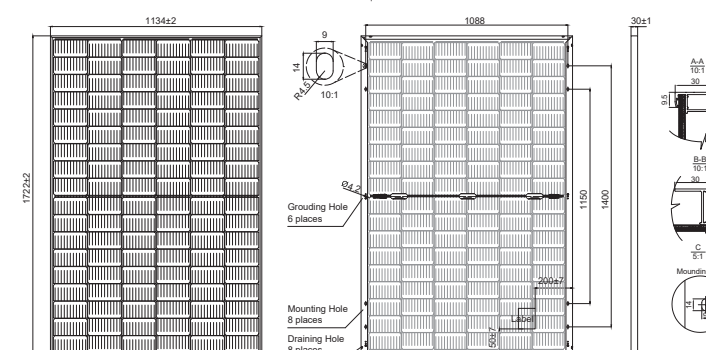
Mechanical Specifications

Cell Type	N-type BIFACIAL MONO 182×91mm
No. of Cells	108 (6×18)
Dimension	1722x1134x30mm
Weight	25kg
Glass	Dual glass, 2.0mm coated tempered glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68, 3 diodes
Output Cables	4mm ² , Length 300mm or customized
Connector type	MC4 compatible

Packaging Configurations

Per Pallet	36 pcs
Per 40' HQ Container	936 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	20A

Curve & Temperature Dependence

