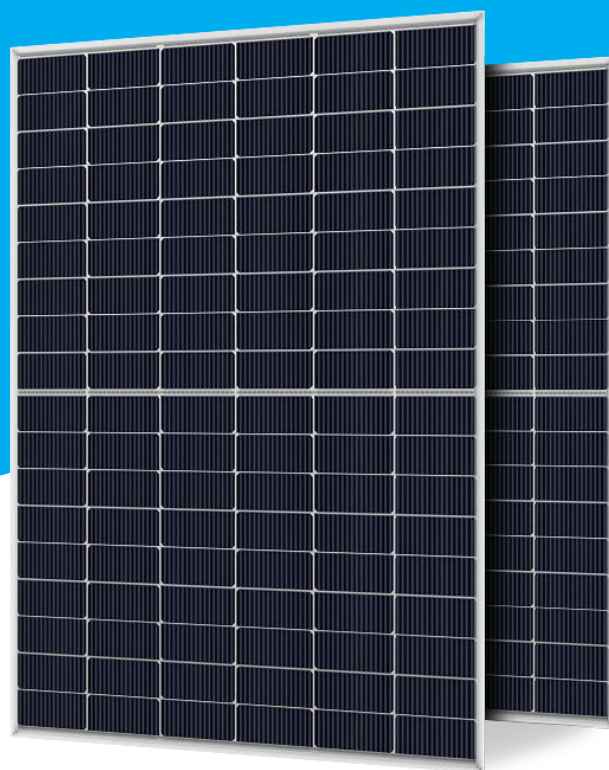




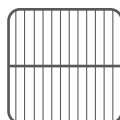
PNGNH54-B8(182)

440-460 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 23.56%

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;

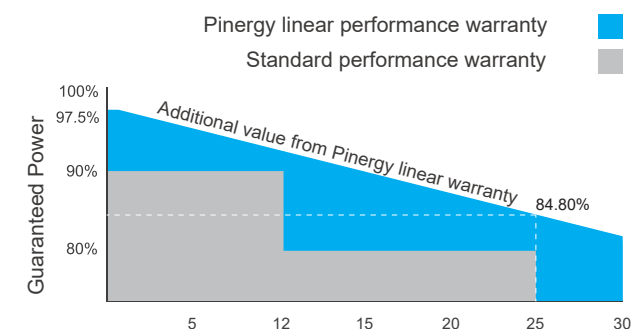


Strength and Durability

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-B8-xxx , (xxx=Pmax)

Module Type	440		445		450		455		460	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Max. Power (Pmax/W)	440	334	445	338	450	342	455	346	460	350
Voltage at Max. Power (Vmp/V)	32.35	30.72	32.55	30.92	32.75	31.12	32.95	31.32	33.15	31.52
Current at Max. Power (Imp/A)	13.60	10.87	13.67	10.93	13.74	10.99	13.81	11.05	13.88	11.11
Open circuit voltage (Voc/V)	38.95	36.98	39.15	37.18	39.35	37.38	39.55	37.58	39.75	37.78
Short circuit current (Isc/A)	14.29	11.45	14.36	11.52	14.43	11.59	14.50	11.65	14.57	11.71
Module efficiency (%)	22.53%		22.79%		23.04%		23.30%		23.56%	
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

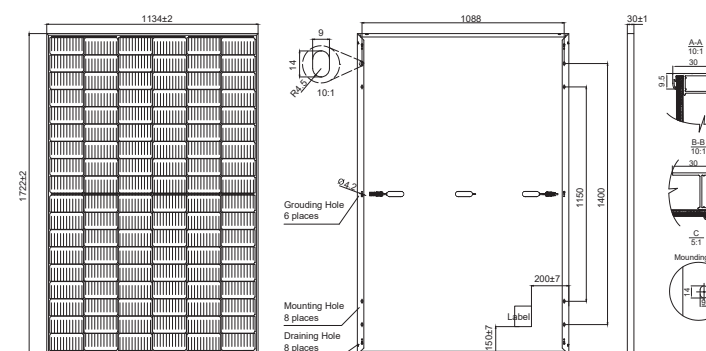
Mechanical Specifications

Cell Type	N-Type Mono 182×91mm
No. of Cells	108 (6×18)
Dimension	1722x1134x30mm
Weight	21.5kg
Glass	3.2mm, Low Iron 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	25A

Curve & Temperature Dependence

