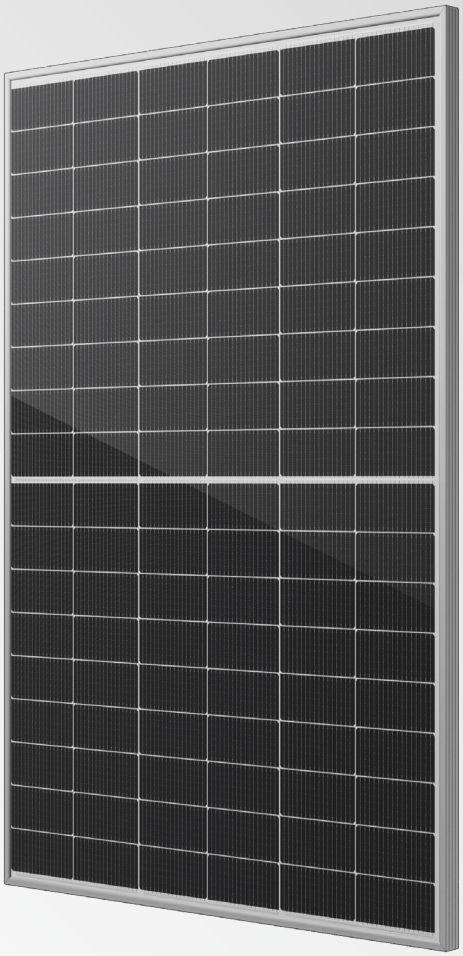
Making more power

BiMAX 5N

430-450W

SP450M-54H

N-type HJT Bifacial Dual Glass Solar Module



HJT 2.0 Technology

Combining gettering process and single-side μc-Si technology to ensure higher cell efficiency and higher module power.

-0.26%/°C Pmax temperature coefficient

More stable power generation performance and even better in hot climate.

SMBB design with Half-Cut Technology

Shorter current transmission distance, less resistive loss and higher cell efficiency.

Up to 90% Bifaciality

Natrual symmetrical bifacial structure bringing more energy yield from the backside.

Sealing with PIB based sealant

Stronger water resistance, greater air impermeability to extent module lifespan.

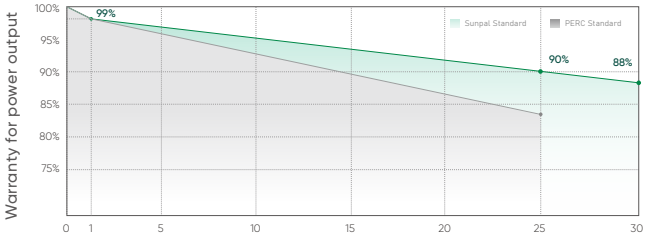
Quality Management System and Product Certification

IEC61215/61730, IEC62804(PID), IEC61701(Salt).
IEC62716 (Ammonia), IEC60068-2-68(Sand).
ISO 9001:2015/quality management system.
ISO 14001:2015/environmental management system.
ISO 45001:2018/occupation health safety management system.
ISO 50001:2011/energy management system.
IEC TS 62941-2016/PV industry quality management system.

Quality Guarantee

25 YEAR Materials Warranty

30 YEAR Power Warranty



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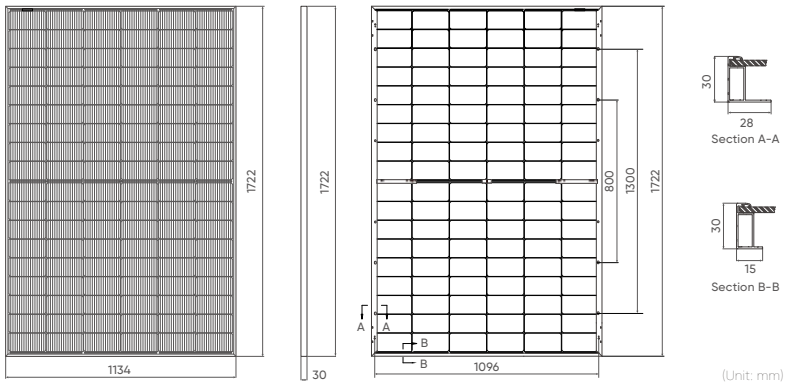
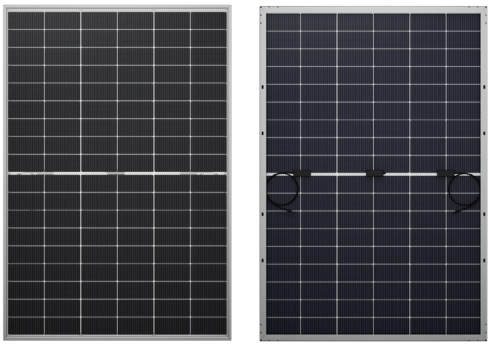
Drawings



Product Image



Mechanical Characteristics

Solar Cells	N-type HJT
No. of Cells	108 (6×18)
Dimensions	1722 × 1134 × 30mm
Weight	23.5kg
Glass	Front: 2.0mm coated semi-tempered glass; Back: 2.0mm semi-tempered glass
Frame	Anodized aluminium alloy
Junction Box	Ip68 rated (3 by pass diodes)
Output Cables	4mm2, 300mm (+) / 300mm (-), Length can be customized
Connectors	Mc4 compatible
M echanical load test	5400Pa
Packaging	36pcs/box, 216pcs/20'GP, 936pcs/40'HQ

Operating Characteristics

Operating Module Temperature	-40°C to +85°C
Maximun System Voltage	1500 DC (IEC)
Maximun Series Fuse Rating	30A
Power Tolerance	0/+5W

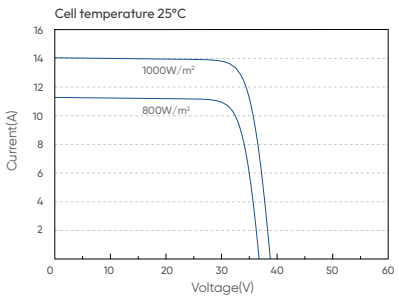
Temperature Characteristics

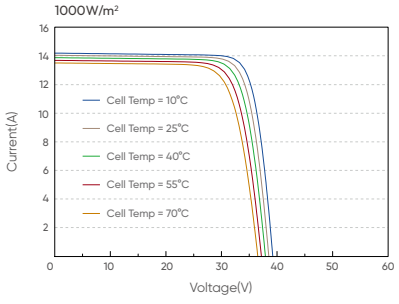
Nominal Operating Temperature (NMOT)	44±2°C
Temperature Coefficient of Pmax	-0.26%°C
Temperature Coefficient of Voc	-0.24%°C
Temperature Coefficient of Isc	+0.04%°C

Electrical Parameters (STC*)

Module Type: **SP450M-54H**	430	435	440	445	450
Maximum power (Pmax/W)	430	435	440	445	450
Open Circuit Voltage (Voc/V)	40.30	40.56	40.83	41.09	41.34
Short Circuit Current (Isc/A)	13.30	13.35	13.40	13.45	13.50
Voltage at Maximum power (Vmpp/V)	33.49	33.75	34.01	34.26	34.51
Current Maximum Power (Impp/A)	12.84	12.89	12.94	12.99	13.04
MODULE EFFICIENCY (%)	22.02	22.28	22.53	22.79	23.04

I-V Curve





Bifacial Output-Rearsid Power Gain

5%	Maximum power (Pmax/W)	475	481	486	492	497
	Module Efficiency STC (%)	23.12	23.39	23.66	23.93	24.19
15%	Maximum power (Pmax/W)	495	500	506	512	518
	Module Efficiency STC (%)	25.32	25.62	25.91	26.21	26.50
25%	Maximum Power (Pmax/W)	538	544	550	556	563
	Module Efficiency STC (%)	27.53	27.85	28.16	28.49	28.80

1. Standard Test Conditions [STC]: irradiance 1000W/m²; AM 1.5; ambient temperature 25°C according to EN 60904-3;
2. Tolerance of Pm: 0~+5W, Measuring uncertainty of power: ±3%. Performance deviation of Voc [V], Isc [A], Vm [V] and Im [A]: ±3%.

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