

ASM60P 460-480 Series

N-type Single glass components

460-480W

POWER RANGE

22.24%

MAXIMUM EFFICIENCY

0.55%

YEARLY DEGRADATION



12 YEARS PRODUCT WARRANTY



30 YEARS OUTPUT GUARANTEE



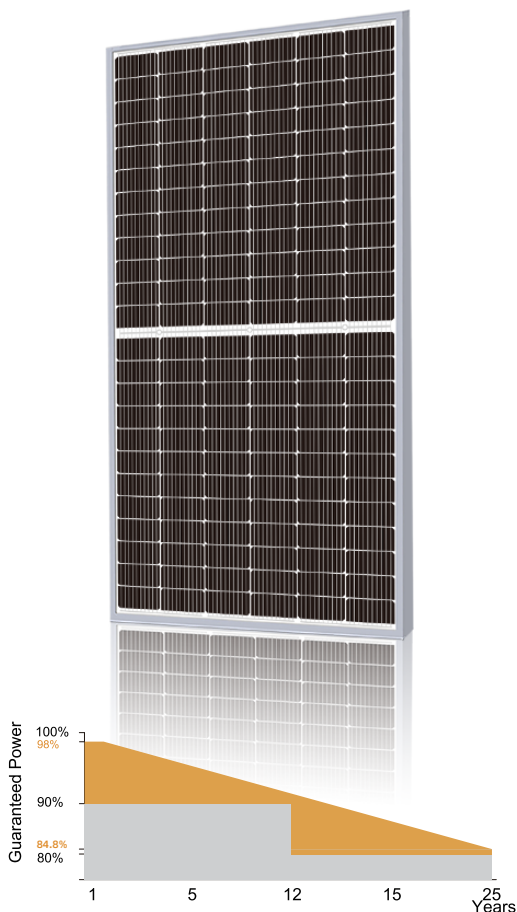
IEC 61215/IEC 61730/IEC 61701/IEC 62716/UL6 1730

ISO 14001: Environmental Management System

ISO 9001: Quality Management System

ISO45001: Occupational Health and Safety Management System

*As there are different certification requirements in different markets, please contact your local znsolar sales representative for the specific certificates applicable to the products in the region in which the products are to be used.



*Please check the valid version of Limited Product Warranty which is officially released by Anhui Shangxia Solar Energy Co., Ltd.

KEY FEATURES



Excellent Cells Efficiency

MBB technology reduce the distance between busbars and finger grid line which is benefit to power increase.



Better Weak Illumination Response

More power output in weak light condition, such as haze, cloudy, and early morning.



Anti PID

Ensured PID resistance through the quality control of cell manufacturing process and raw materials.



Adapt To Harsh Outdoor Environment

Resistant to harsh environments such as salt, ammonia, sand, high temperature and high humidity environment.



TIER 1

Global, Tier 1 bankable brand, with independently certified advanced automated manufacturing.



Excellent Quality Management System

Warranted reliability and stringent quality assurances well beyond certified requirements.



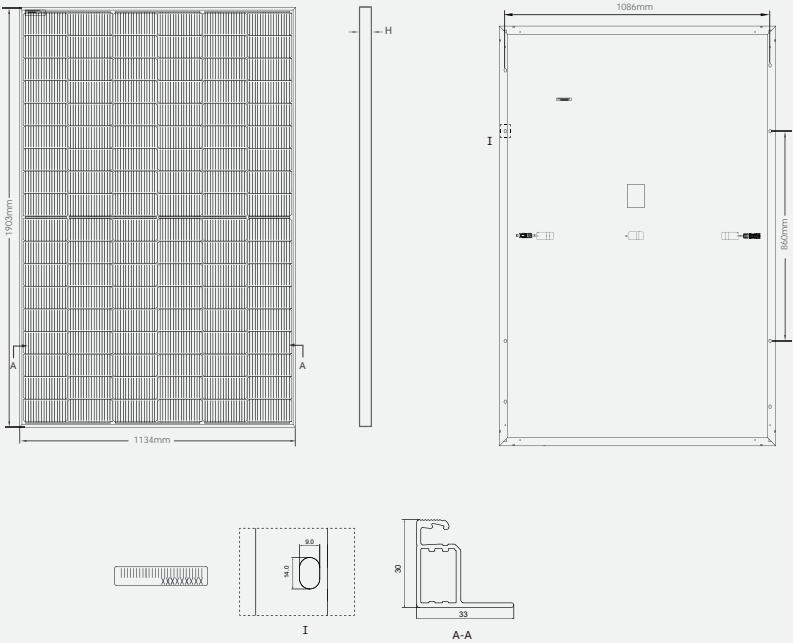
Bifacial Technology

Up to 25% additional power gain from back side depending on albedo.

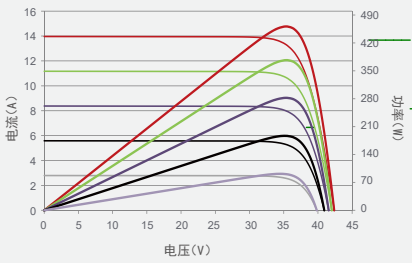
Anhui Shangxia Solar Energy Co., Ltd,

Address: No.1669-4, Huoli Shan North Road, Cihu Gaoxin District, Maanshan City Anhui Province,
Ma'anshan, Anhui, China
Web: www.ahsx-solar.com

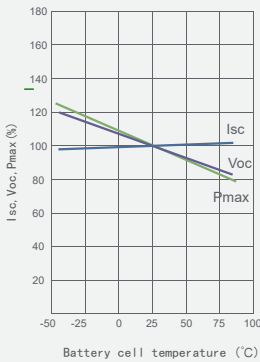
DIMENSIONS OF PV MODULE(mm)



Current voltage and power voltage curves(445W)



Isc, Voc, Pmax Temperature curve



*Remark: customized frame color and cable length available upon request

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ELECTRICAL CHARACTERISTICS | STC*

Nominal Power Watt Pmax(W)*	460	465	470	475	480
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	34.72	34.89	35.05	35.21	35.38
Maximum Power Current Imp(A)	13.25	13.33	13.41	13.49	13.57
Open Circuit Voltage Voc(V)	42.05	42.22	42.38	42.54	42.71
Short Circuit Current Isc(A)	13.99	14.07	14.15	14.23	14.31
Module Efficiency (%)	21.32	21.55	21.78	22.02	22.24

*The data above is for reference only and the actual data is in accordance with the practical testing
*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25°C, AM 1.5
*Measuring tolerance: ±3%

ELECTRICAL CHARACTERISTICS | NMOT*

Maximum Power Pmax(Wp)	346	350	353	357	361
Maximum Power Voltage Vmpp(V)	10.61	10.67	10.73	10.79	10.85
Maximum Power Current Imp(A)	33.60	32.77	32.94	33.10	33.27
Open Circuit Voltage Voc(V)	39.94	40.10	40.25	40.41	40.57
Short Circuit Current Isc(A)	11.29	11.36	11.42	11.49	11.55

*NMOT: Irradiance 800W/m², Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s

Battery cell temperature

Transportation and loading capacity of flatbed trucks (model: high and low board - total length of 17.5 meters, high board length of 3.5-4.5 meters)

MECHANICAL DATA

Solar cells	Single glass
Cells orientation	144 (6×24)
Module dimension	1903×1134×30mm(With Frame)
Weight	24.2 kg
Glass	3.2mm, High Transmission, AR Coated Tempered
Junction box	Glass IP 68, 3 diodes
Cables	4 mm ² ,350 mm (With Connectors)
Connectors*	MC4-compatible

*Please refer to regional datasheet for specified connector

TEMPERATURE RATINGS

NMOT	45°C ±2°C	Maximum system voltage	1500 V DC
Temperature coefficient of Pmax	-0.29%/°C	Operating temperature	-40°C~+85°C
Temperature coefficient of Voc	-0.25%/°C	Maximum series fuse	25 A
Temperature coefficient of Isc	+0.045%/°C	Front Side Maximum Static Loading	Up to 5400Pa
Refer.Bifacial Factor	70±5%	Rear Side Maximum Static Loading	Up to 2400Pa

*Do not connect Fuse in Combiner Box with two or more strings in parallel connection