

N⁺SERIES

SUN182THCD450-54

450W MAXIMUM POWER OUTPUT
 23.04% MAX MODULE EFFICIENCY
 0~+5W POWER TOLERANCE
 ≤1% FIRST YEAR POWER DEGRADATION
 ≤0.4% YEAR 2~30 POWER DEGRADATION

BIFACIAL MODULE

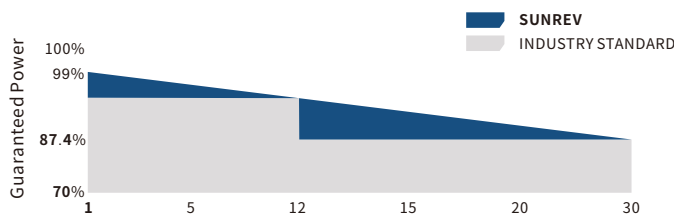
N-Type

IEC 61215(2021), IEC 61730(2023)

ISO 9001:2015: Quality management system

ISO 14001:2015: Environment System

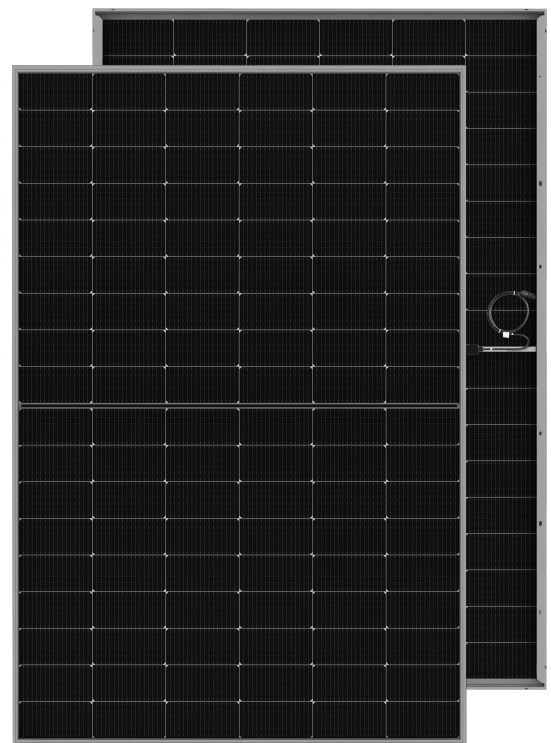
ISO 45001:2018: Occupational health management systems



12-Year Warranty for Materials and Processing

30-Year Warranty for Extra Linear Power Output

0.40% Annual Degradation Over 30 years



PRODUCT FEATURES



SMBB Technology Half Cut N-Type Cell
Better light trapping and current collection to improve module power output and reliability.



Higher Power Output
Module power increases 5-25% generally, bringing significantly lower LCOE and higher IRR.



PID Resistance
Excellent Anti-PID performance guarantee via optimized mass-production process and materials control.



Higher reliability

The N-type has a single-watt power generation gain of over 3% compared to PERC modules, reduces power temperature loss, and exhibits excellent high-temperature performance. Low electricity cost



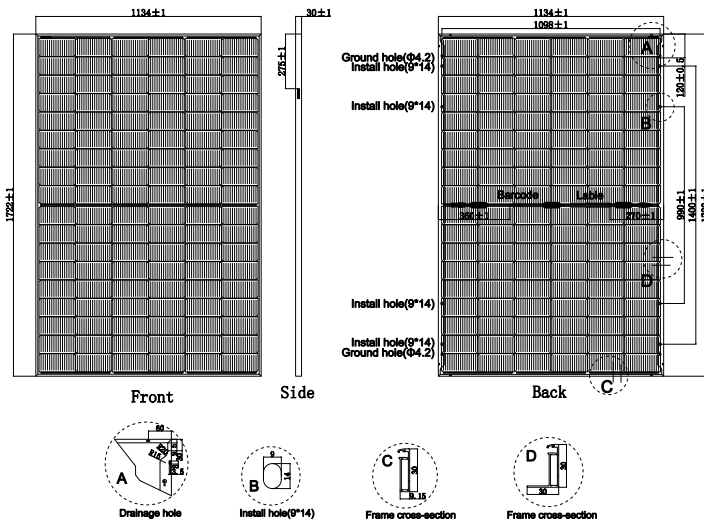
Enhanced Mechanical Load

Test load 5400Pa(downward) and 2400 Pa(upward).

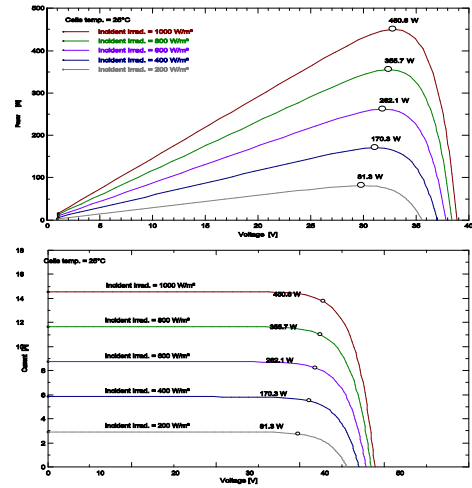


Made in China

Drawing Information



I-V Curve(450W)



Connector Model

- 1: Zerun Co., Ltd. Z4S-abcd
- 2: Zhejiang Minghe New EnergyTechnology Co., Ltd. PV-MH5
- 3: Zhejiang Chint XinHui PV Co., Ltd. PV-HCC40

Packaging Configuration

Per Pallet	36Pcs	
Container	20'GP	40'HQ
Pcs/Container	216	936

Mechanical Parameters

Cell Type	N type Mono-crystalline
No.of cells	108(6*18)
Dimensions	1722*1134*30mm
Weight	25.5kg
Front Glass	2.0mm,Anti-Reflection Coating
Back Glass	2.0mm,Heat Strengthened Glass
Frame	Anodized Aluminum Alloy Frame
Junction Box	IP68 Rated / 3 Diodes
Output Cables	4.0mm ² /+300mm-300mm,or Customized length
Fire Safety Class	Class C according to UL790

ELECTRICAL PARAMETERS

Module Type	SUN182THCD450-54		
	STC	BNPI	aBSI
Maximun Power(Pmax/W)	450	499	
Maximun Power Voltage(Vmp/V)	32.47	32.47	
Maximun Power Current(Imp/A)	13.86	15.37	
Open-circuit Voltage(Voc/V)	38.87	38.87	
Shot-circuit Current(Isc/A)	14.57	16.14	18.07
Module Efficiency(%)	23.04		
Module[T ₉₈]max	70°C		
Maximun system voltage	1500VDC		
Maximun series fuse rating	30A		
Tolerance of Pmax/Voc/Isc	±3%		
Temperature coefficients of Pmax	-0.290%/°C		
Temperature coefficients of Voc	-0.250%/°C		
Temperature coefficients of Isc	0.040%/°C		
Bifaciality Coefficient	φVoc=100±5% φIsc=80±5% φPmax=80±5%		

- *STC:** ☀ Irradiance 1000W/m² 🌡 Cell temperatura 25°C ☁ AM=1.5
- *BNPI:** ☀ Irradiance front 1000W/m² rear 135W/m² 🌡 Cell temperatura 25°C ☁ AM=1.5
- *aBSI:** ☀ Irradiance front 1000W/m², rear 300W/m² 🌡 Cell temperatura 25°C ☁ AM=1.5

Manufacturer: Sunrev(Yangzhou) Photovoltaic Technology Co., Ltd.
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<https://www.sunrev.com.au/>