

N⁺SERIES

SUN182THCDXXX-72(X=585~595)

585~595W MAXIMUM POWER OUTPUT	22.65~23.03% MAX MODULE EFFICIENCY	0~+5W POWER TOLERANCE	≤1% FIRST YEAR POWER DEGRADATION	≤0.4% YEAR 2~30 POWER DEGRADATION
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BIFACIAL MODULE

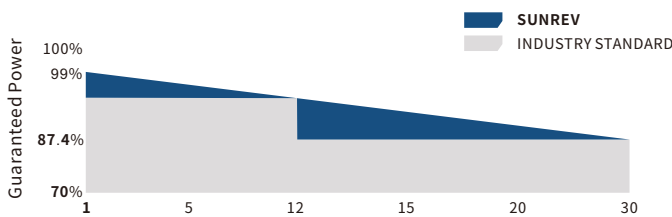
N-Type

IEC 61215(2021), IEC 61730(2023)

ISO 9001:2015: Quality management system

ISO 14001:2015: Environment System

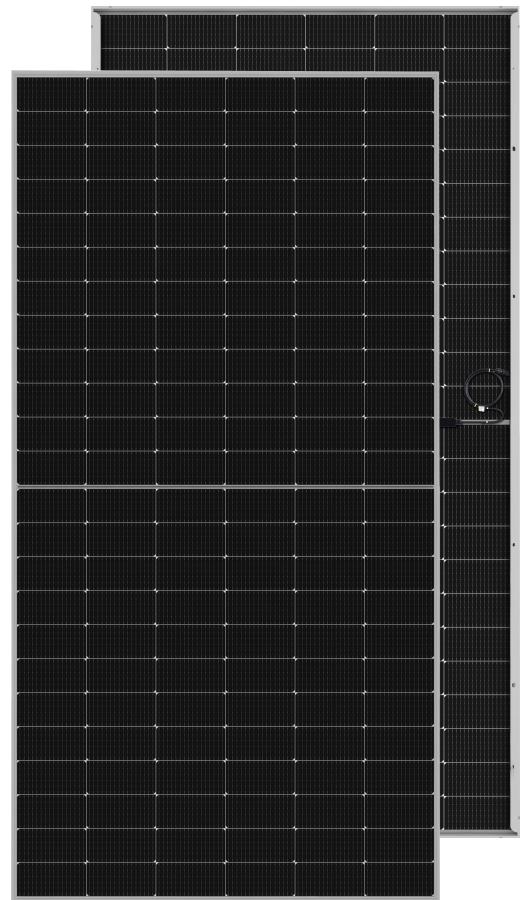
ISO 45001:2018: Occupational health management systems



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



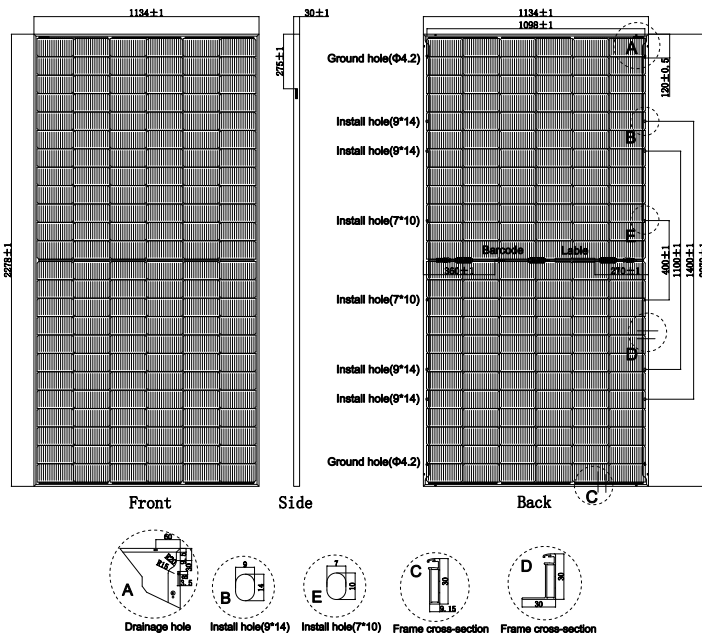
Enhanced Mechanical Load

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

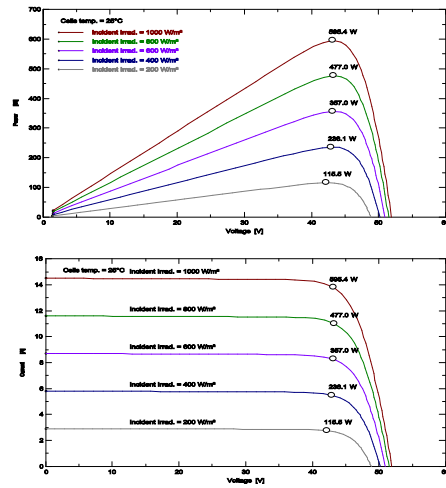


Made in China

Drawing Information



I-V Curve(595W)



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	180	720

Mechanical Parameters

Cell Type	N type Mono-crystalline
No. of cells	144(6*24)
Dimensions	2278*1134*30mm
Weight	32.0kg
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	SUN182THCD585-72			SUN182THCD590-72			SUN182THCD595-72		
	STC	BNPI	aBSI	STC	BNPI	aBSI	STC	BNPI	aBSI
Maximun Power(Pmax/W)	585	648		590	654		595	659	
Maximun Power Voltage(Vmp/V)	42.75	42.75		42.81	42.81		42.90	42.90	
Maximun Power Current(Imp/A)	13.68	15.16		13.78	15.28		13.87	15.37	
Open-circuit Voltage(Voc/V)	51.76	51.76		51.85	51.85		51.94	51.94	
Shot-circuit Current(Isc/A)	14.41	15.97	17.87	14.46	16.02	17.93	14.51	16.08	17.99
Module Efficiency(%)	22.65			22.84			23.03		
Module [T ₉₅] _{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/>