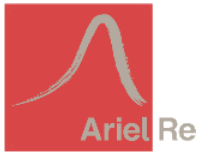


Tier1

BloombergNEF



Lloyd's Syndicate 1910



ISO14001

ISO9001

ISO45001



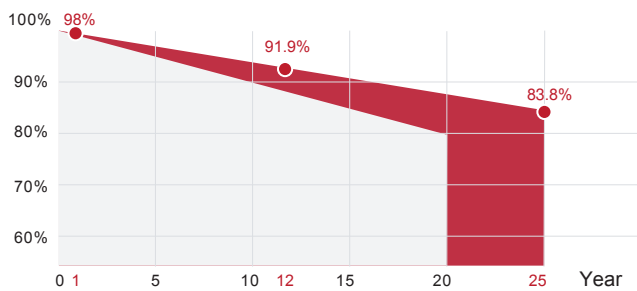
M12 HIEFF TWIN MONO

SPxxx-120M12

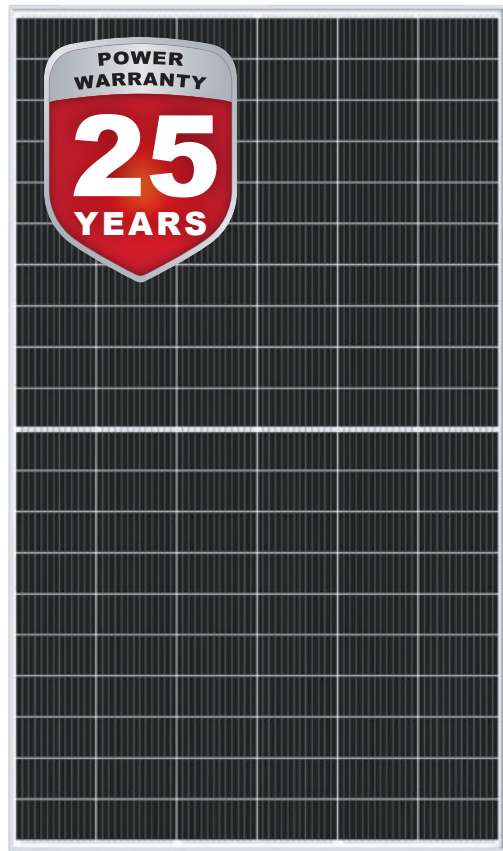
- Silver frame (xxx=580~605W)
- Black frame
- Full black
- Bifacial

25 Yr quality guarantee | 25 Yr power warranty

■ SUNPRO Standard (Additional value from 25-year warranty)
 ■ Industry Standard



*SUNPRO Standard tiered warranty



WARRANTY & GUARANTEE

Linear output power guarantee
 12 years: 91.9% power output
 25 years: 83.8% power output



WITHSTAND STRONG

Snow load 5400Pa
 Wind load 2400Pa



R&D AND PRODUCTION

Advanced production line.
 The leading solar cell cutting process and multi busbar design with SUNPRO Technology.



HIGH EFFICIENCY

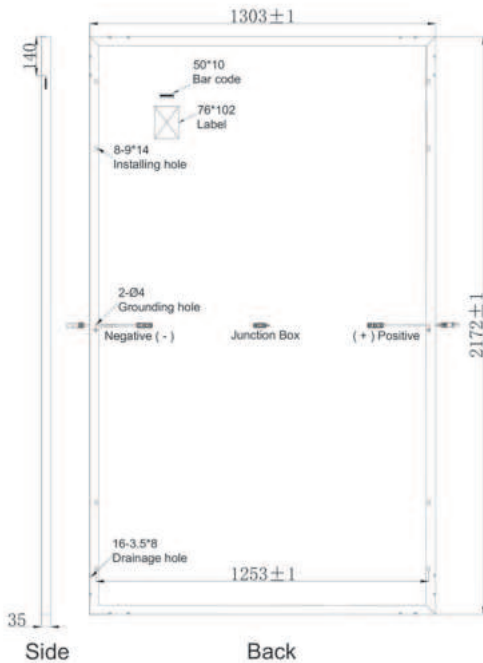
Efficiency can reach 21.38%. Excellent low light performance. Higher power output under the conditions of haze, overcast, etc.

Electrical parameters at standard test conditions (STC:AM=1.5, 1000W/m², Cells Temperature 25°C)

Typical type

	580W	585W	590W	595W	600W	605W
Max power(Pmax)	580	585	590	595	600	605
Max power voltage(Vmp)	33.60	33.80	34.00	34.20	34.40	34.60
Max power current(Imp)	17.27	17.31	17.35	17.40	17.45	17.49
Open circuit voltage(Voc)	40.70	40.90	41.10	41.30	41.50	41.70
Short circuit current(Isc)	18.32	18.37	18.42	18.47	18.52	18.57
Module Efficiency(%)	20.50	20.67	20.85	21.02	21.20	21.38
Max system voltage	DC 1500V(TUV)					
Maximum Series Fuse Rating	30A					

DIMENSIONS AND STRUCTURE



Electrical parameters at NMOT test conditions

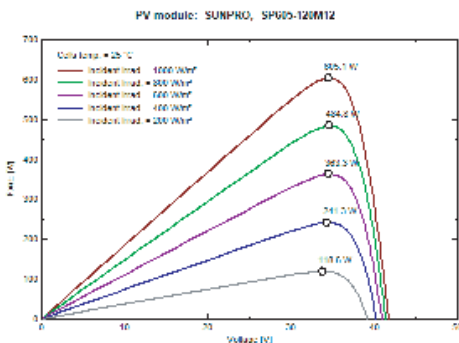
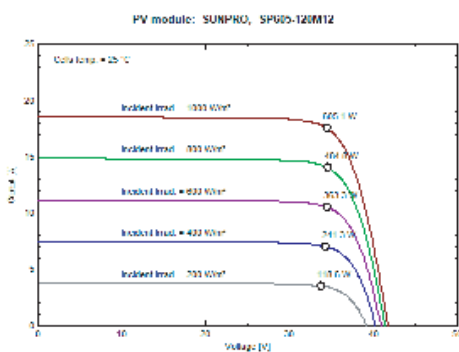
(Irradiance 800W/m², Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s)

Typical type	580W	585W	590W	595W	600W	605W
Max power(Pmax)	472.6	476.4	480.2	484.3	488.5	492.3
Max power voltage(Vmp)	34.20	34.40	34.60	34.80	35.00	35.10
Max power current(Imp)	13.80	13.85	13.89	13.93	13.97	14.01
Open circuit voltage(Voc)	40.90	41.10	41.30	41.50	41.70	41.90
Short circuit current(Isc)	14.64	14.68	14.72	14.76	14.80	14.84

Mechanical Data

Dimensions	2172x1303x35mm
Weight	30.9 kg
Glass	3.2mm tempered glass
Output cables	4mm ² , symmetrical lengths 1300mm
Number of cells	120 cells (Half-Cell)
Cell type	Mono-Crystalline PERC, 12BB, 210x105mm
Connectors	Taizhou Chuangda Electronic Co.,Ltd. Type: PV-TT02,1500V DC,43A, -40 to 85° C, IP68(1m,1h)

I-V CHARACTERISTICS AT DIFFERENT IRRADIATION



Temperature Characteristics

Packing Configuration

Temp.Coeff.of Isc(TK Isc)	0.049%/°C	Container	40'HQ
Temp.Coeff.of Voc(TK Voc)	-0.27%/°C	Pieces per pallet	31
Temp.Coeff.of Pmax(TK Pmax)	-0.35%/°C	Pallets per container	17
Operating temperature	-40~+85°C	Pieces per container	527
Normal operating cell temperature	44±2°C		

Tests, Certifications and Warranties

Standard tests	IEC 61215, IEC 61730
System certs	ISO 9001, ISO14001, ISO45001
Certifications	TUV, CE, WEEE, INMERTRO, FIRE CERTIFICATE C1
Extreme wind and snow loads testing	Withstand extreme wind(2400 Pascal) and snow loads(5400 Pascal)
Power tolerance	-3%~+3%
Junction box	IP 68
Warranties	25 years product warranty and 25 years 83.8% of power
Fire class rating	Class C