Tier1

BloombergNEF

YH SUNPRO POWER

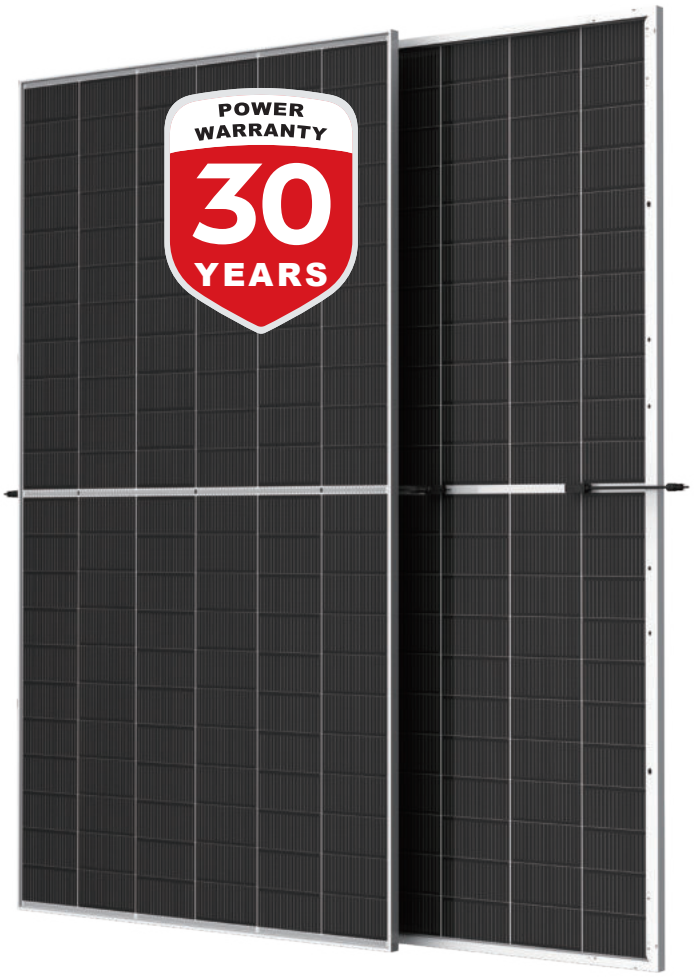
ISO 9001 ISO 14001 SA 8000
ISO 45001 OHSAS 18001

M12 TOPCON BIFACIAL

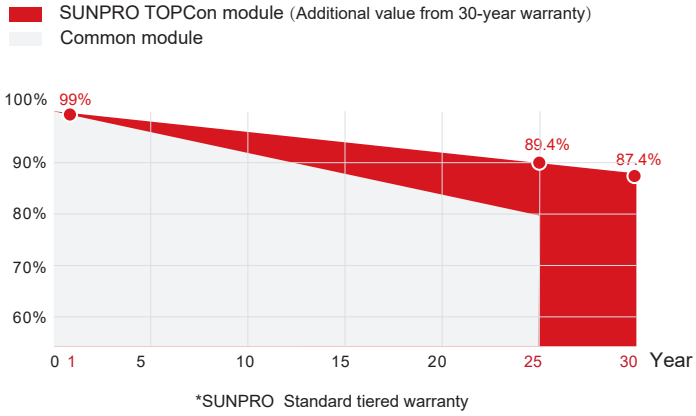
SPDGxxx-N132M12

685~710W

- Double glass
- Silver frame
- White mesh



25 Yr quality guarantee | 30 Yr power warranty



*SUNPRO Standard tiered warranty

WARRANTY & GUARANTEE

Linear output power guarantee
25 years: 89.4% power output
30 years: 87.4% power output

WITHSTAND STRONG

Snow load 5400Pa
Wind load 2400Pa

PID RESISTANCE

Power positive tolerance: 0~+5W.
The attenuation probability of PID phenomenon is minimized through battery production technology optimization and material control

R&D AND PRODUCTION

Advanced production line. Bifaciality>80%,effectively improves backside power generation.The leading solar cell cutting process and multi busbar design with SUNPRO Technology.

HIGH EFFICIENCY

N-type , Components have better reliability and lower LID/LETID attenuation. Efficiency can reach 22.86%. Excellent low light performance. Higher power output under the conditions of haze, overcast, etc.

YHSUNPRO POWER

Electrical parameters at standard test conditions (STC:AM=1.5, 1000W/m² ,Cells Temperature25℃)

Typical type	685W	690W	695W	700W	705W	710W
Max power(Pmax)	685	690	695	700	705	710
Max power voltage(Vmp)	39.91	40.12	40.32	40.51	40.69	40.88
Max power current(Imp)	17.17	17.2	17.24	17.28	17.33	17.37
Open circuit voltage(Voc)	47.69	47.88	48.08	48.27	48.46	48.65
Short circuit current(Isc)	18.21	18.25	18.28	18.32	18.36	18.40
Module Efficiency(%)	22.05	22.21	22.37	22.53	22.70	22.86
Max system voltage	DC 1500V (TÜV)					
Maximum Series Fuse Rating	35A					

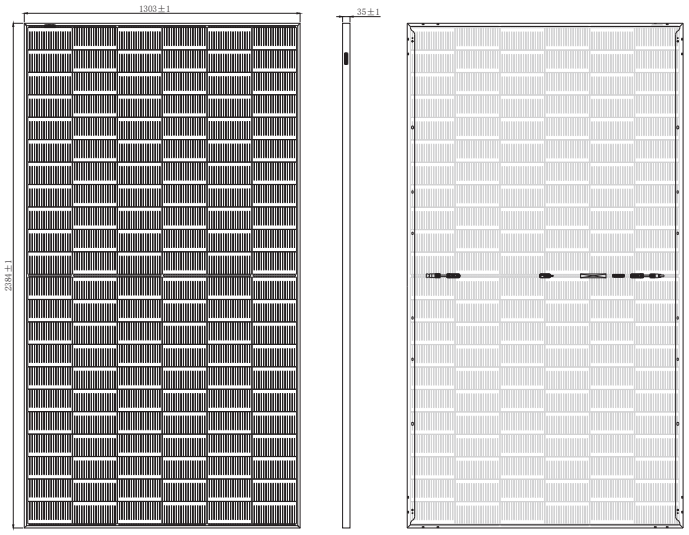
Electrical Characteristics with 15% Rear Side Power Gain

Front power Pmax/W	685W	690W	695W	700W	705W	710W
Total power Pmax/W	787.75	793.5	799.25	805	810.75	816.5
Vmp/V(Total)	39.91	40.12	40.32	40.51	40.69	40.88
Imp/A(Total)	19.74	19.78	19.82	19.87	19.93	19.97
Voc/V(Total)	47.69	47.88	48.08	48.27	48.46	48.65
Isc/A(Total)	20.94	20.99	21.02	21.07	21.11	21.16

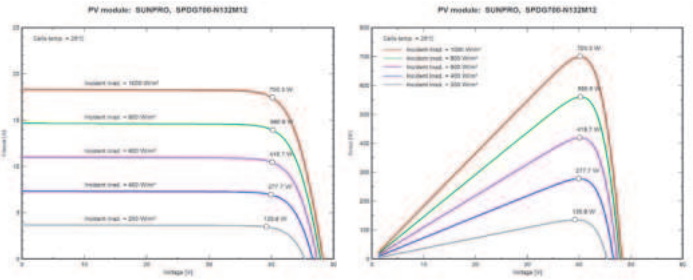
Electrical parameters at NMOT test conditions
(Irradiance 800W/m²,Ambient Temperature 20°C,AM 1.5,Wind Speed 1m/s)

Typical type	685W	690W	695W	700W	705W	710W
Max power(Pmax)	517.7	521.7	525.6	529.5	533.8	537.9
Max power voltage(Vmp)	37.40	37.60	37.80	38.00	38.20	38.40
Max power current(Imp)	13.84	13.87	13.91	13.94	13.98	14.01
Open circuit voltage(Voc)	45.20	45.40	45.60	45.80	46.00	46.20
Short circuit current(Isc)	14.65	14.68	14.70	14.74	14.77	14.80

DIMENSIONS AND STRUCTURE



I-V CHARACTERISTICS AT DIFFERENT IRRADIATION



Mechanical Data

Dimensions	2384×1303×35mm
Weight	38.3kg
Glass	(F) 2.0mm ultra clear embossed double layer colorless glass (B) 2.0mm white mesh glazed tempered glass
Output cables	4mm², symmetrical lengths 1300mm
Connectors	MC4 compatible IP68
Cell type	Mono-Crystalline, N type Bifacial, 210mm x 105mm
Number of cells	132cells (Half-Cell)

Temperature Characteristics

Temp.Coeff.of Isc(TK Isc)	0.045%/ ℃
Temp.Coeff.of Voc(TK Voc)	-0.25%/℃
Temp.Coeff.of Pmax(TK Pmax)	-0.30%/℃
Operating temperature	-40~+85℃
Normal operating cell temperature	45±2℃

Packing Configuration

Container	40'HQ
Pieces per pallet	31
Pallets per container	18
Pieces per container	558

Tests, Certifications and Warranties

Standard tests	IEC 61215, IEC 61730
System certs	ISO 9001, ISO14001, ISO45001
Certifications	TÜV, WEEE
Extreme wind and snow loads testing	Withstand extreme wind(2400 Pascal) and snow loads(5400 Pascal)
Power tolerance	0~+5W
Junction box	IP 68
Warranties	25 years product warranty and 30 years 87.4% of power

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