

SUNPRO POWER

You can find various energy solutions
from Sunpro Power

Zhejiang Sunpro Power Technology Co., Ltd

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Scan QR code for more information



RESIDENTIAL / COMMERCIAL



SOLAR CELL



SOLAR MODULES



SOLAR PROJECT
DESIGN

ABOUT SUNPRO

TIER1

PHOTOVOLTAIC MODULE SUPPLIER

SUNPRO POWER was established in 2018, HQ located in Yuhuan city, Zhejiang province China.

We have two production bases in Yuhuan and Wuxi, annual capacity more than 2GW, mainly engaged in R&D, production and sales of PV cells, PV modules, and investment in solar projects. We are also providing professional OEM/ODM service for global customers.

Sunpro Power have sold to more than 100 countries, and listed in Bloomberg Tier 1 PV module supplier since Q2 2022.



**WELCOME TO
SUNPRO POWER**

HOW DID WE DO IT ?

**RAPID GROWTH BROUGHT
ABOUT BY QUALITY AND
REPUTATION**



OUR TRAJECTORY

OUR SALES OUTLETS



● EU NATIONAL SITE: POLAND, GERMANY, SPAIN, NETHERLANDS, ITALY, HUNGARY, CROATIA, ROMANIA, CZECH REPUBLIC

ASIA

- ◆ HEADQUARTERS
Qinggang Technological Ind. Zone, Yuhuan City, Zhejiang Province, China
- ◆ BANGLADESH
H # 469, R # 31, Mohakhali DOHS, Mohakhali, Dhaka-1206

EUROPE

- ◆ GERMANY
Mergenthalerallee 73-75, 65760, Eschborn, Germany
- ◆ POLAND
ul. Leszno 8, 01-192, Warsaw, Poland
- ◆ ROMANIA
18 - 20 Decebal Street, Floor #2, 100142 PLOIEȘTI, Prahova County
- ◆ ITALY
Piazza Sigmund Freud 1, 20154 Milano
- ◆ ESTONIA
Harju maakond, Tallinn, Mustamäe linnaosa, Akadeemia, tee 39, 13520

AFRICA

- ◆ SOUTH AFRICA
Unit 4 Cavi Centre, corner of BP Road, Montague Drive, Montague Gardens, Cape Town, 7441

◆◆◆

EUROPEAN WAREHOUSE

- ◆ NETHERLAND
Provincialeweg 3, 3248LK Melissant
- ◆ POLAND
Rajec Szlachecki 157a 26-613 Radom- Ul. Piłsudskiego 123 c 05-260 Marki
- ◆ ITALY
Roncello, Milan Italy

**GLOBAL WAREHOUSE
AND SERVICE CENTRES**

QUALITY CONTROL MANAGEMENT

PROVIDE HIGH PERFORMANCE,
HIGH RELIABILITY PRODUCT
THROUGH QUALITY MANAGEMENT PROCEDURE

MATERIAL CONTROL

HIGHLY SELECTIVE
SUPPLIERS

GOOD STORE
ENVIRONMENT

AUTOMATIC MATERIAL

SUPPLIER QUALITY
MANAGEMENT

INSPECTION

MATERIAL QUALITY
MANAGEMENT

MANUFACTURE

300+ QUALITY
CHECKPOINT

100% TRIPLE EL
TESTS

SPC CONTROL IN
WHOLE PROCEDURE

SUPPLIER QUALITY
MANAGEMENT

INSPECTION

OBA INSPECTION

MANAGEMENT SYSTEM



ISO9001: 2015 QUALITY MANAGEMENT SYSTEM CERTIFICATION

ISO14001: 2015 ENVIRONMENTAL MANAGEMENT SYSTEM

ISO18001: OHSAS 18001 CERTIFIED COMPANY OF HEALTH AND SAFETY MANAGEMENT SYSTEM

ISO45001: 2018 OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM



QUALITY CERTIFICATION



Product quality assurance and
power output guarantee Anti
PID, resisted to salt&ammonia.

INTERNATIONAL CERTIFICATES



IEC61215/61730

Salt Mist

Ammonia

Anti-PID



UL



CEC



Inmetro



CE

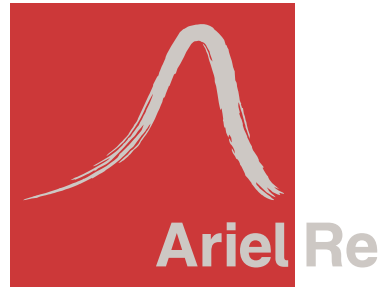


PV CYCLE



WEEE

LLOYD'S REGULATORY INSURANCE



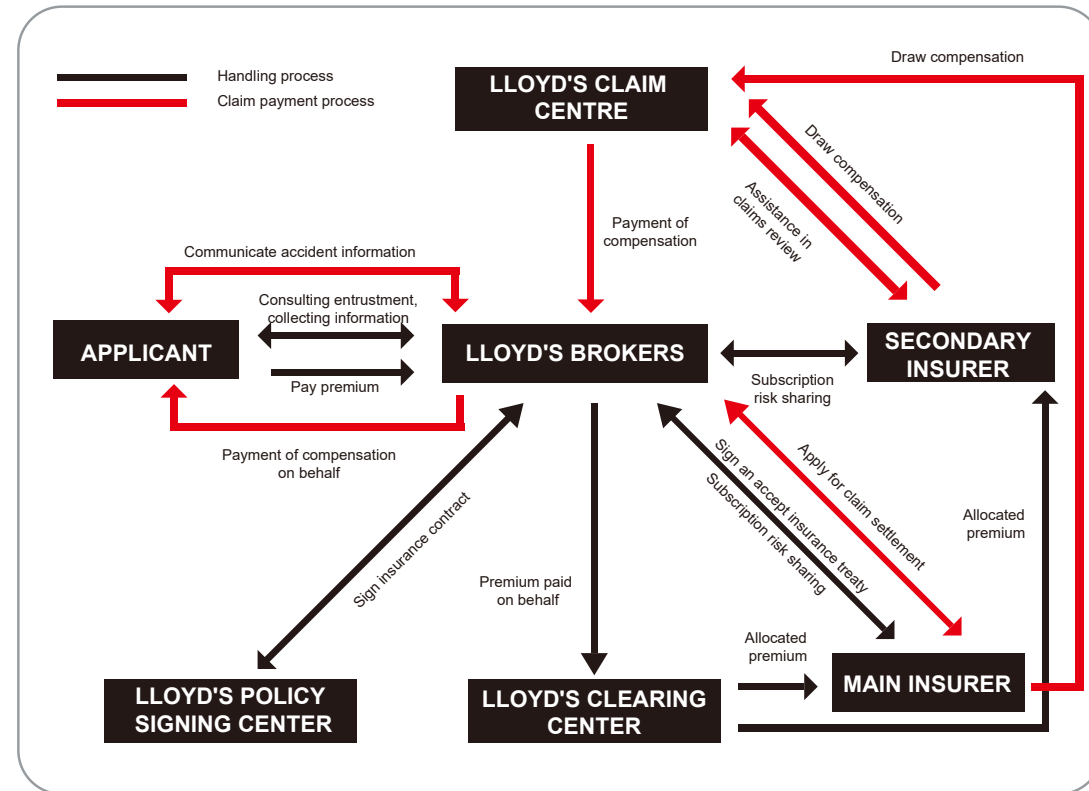
Lloyd's Syndicate 1910

Sunpro's solar modules have ultra long term quality insurance.

The selected Ariel Re Insurance is an insurance company regulated by the world-renowned insurance supervision agency Lloyd's, which maximizes after-sales protection and reduces your purchase risk.



INSURANCE REIMBURSEMENT PROCESS



Sunpro Power could provide ARIEL RE INSURANCE as third party guarantee during **12&25** and **15&30** years warranty.



PROJECTS REFERENCE



Madrid Airport, Spain



Germany



Romania



Romania



Germany



Germany



Germany



Germany



Poland

AND MORE...

SOLAR MODULES

HI-EFF TWIN MONO

Diversify

- In addition to covering mainstream PERC M6, M10, and M12 modules, the latest technology N-TOPCon and N-HJT components are also included to meet different performance requirements.

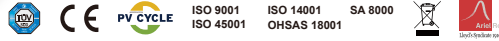
Durable

- The product performance guarantee can last for more than 20 years, and Lloyd's supervised insurance for more than 10 years is provided



Tier1

BloombergNEF



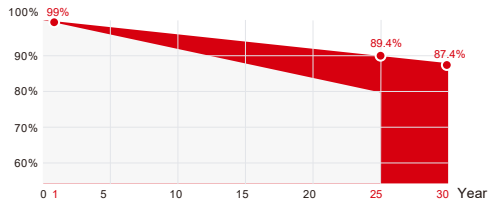
199R TOPCON MONO

SPDG xxx-N132RX10
560~590W

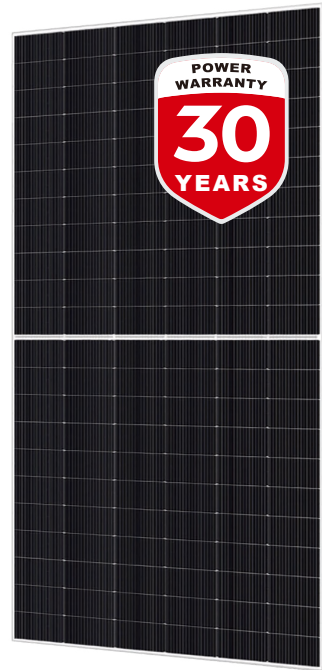
- Double glass
- Silver frame
- White mesh

25 Yr quality guarantee | 30 Yr power warranty

■ SUNPRO TOPCon module (Additional value from 30-year warranty)
■ Common module



*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
gy.



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 Technolo
gy.



HIGH EFFICIENCY

N-type , Components have
better reliability and
lower LID/LETID attenuation.
Efficiency can reach
22.83%. 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 Temperature25°C)

Typical type	560W	565W	570W	575W	580W	585W	590W
Max power(Pmax)	560	565	570	575	580	585	590
Max power voltage(Vmp)	39.44	39.65	39.84	40.05	40.23	40.41	40.58
Max power current(Imp)	14.20	14.25	14.31	14.36	14.42	14.48	14.54
Open circuit voltage(Voc)	47.27	47.39	47.51	47.63	47.74	47.86	47.98
Short circuit current(Isc)	15.02	15.10	15.18	15.25	15.33	15.40	15.48
Module Efficiency(%)	21.67	21.86	22.06	22.25	22.44	22.64	22.83
Max system voltage	DC 1500V(TÜV)						
Maximum Series Fuse Rating	30A						

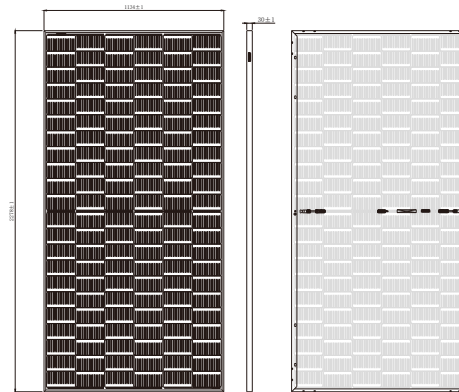
Electrical Characteristics with 15% Rear Side Power Gain

Front power Pmax/W	560W	565W	570W	575W	580W	585W	590W
Total power Pmax/W	644.00	649.75	655.50	661.25	667.00	672.75	678.50
Vmp/V(Total)	39.44	39.65	39.84	40.05	40.23	40.41	40.58
Imp/A(Total)	16.33	16.39	16.45	16.51	16.58	16.65	16.72
Voc/V(Total)	47.27	47.39	47.51	47.63	47.74	47.86	47.98
Isc/A(Total)	17.27	17.37	17.46	17.54	17.63	17.71	17.80

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

Typical type	560W	565W	570W	575W	580W	585W	590W
Max power(Pmax)	421.70	425.50	429.70	433.80	437.70	441.70	455.70
Max power voltage(Vmp)	36.90	37.00	37.20	37.30	37.40	37.60	37.80
Max power current(Imp)	11.43	11.49	11.56	11.61	11.69	11.74	11.81
Open circuit voltage(Voc)	44.60	44.70	44.90	45.00	45.10	45.20	45.40
Short circuit current(Isc)	12.10	12.16	12.23	12.28	12.35	12.40	12.47

DIMENSIONS AND STRUCTURE



Mechanical Data

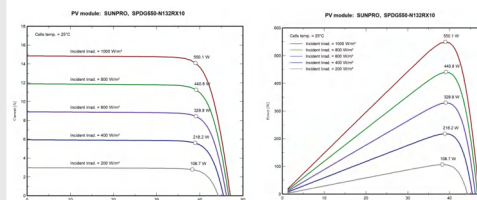
Dimensions	2278x1134x30mm
Weight	32kg
Glass	(F)2.0mm ultra clear embossed double layer colorless glass (B)2.0mm white mesh glazed tempered glass
Output cables	4mm ² , symmetrical lengths 1300mm
Connectors	MC4 compatible IP68
Cell type	N type Mono-Crystalline , 182.2mmx99.5mm
Number of cells	132cells (Half-Cell)

Temperature Characteristics

Temp.Coeff.of Isc(TK Isc)	0.046%/°C	Container	40'HQ
Temp.Coeff.of Voc(TK Voc)	-0.25%/°C	Pieces per pallet	36
Temp.Coeff.of Pmax(TK Pmax)	-0.30%/°C	Pallets per container	20
Operating temperature	-40~+85 °C	Pieces per container	720
Normal operating cell temperature	45±2 °C		

Packing Configuration

I-V CHARACTERISTICS AT DIFFERENT IRRADIATION

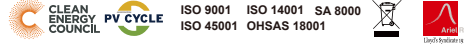


Tests, Certifications and Warranties

Standard tests	IEC 61215, IEC 61730
System certs	ISO 9001, ISO14001, ISO45001
Certifications	TÜV, CE, 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

Tier1

BloombergNEF



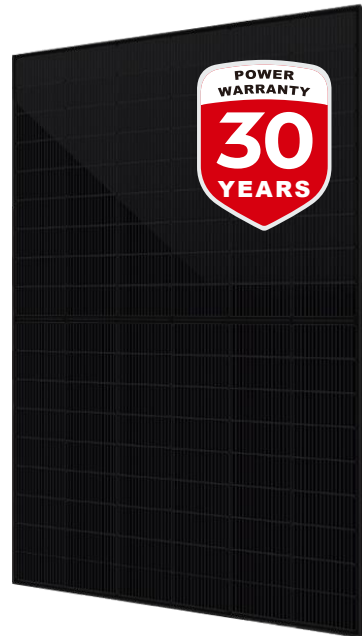
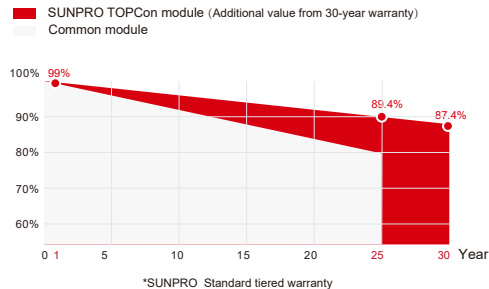
M10 TOPCON MONO

SPDGxxx-N108M10

410~440W

- Double glass
- Black frame
- Black mesh

25 Yr quality guarantee | 30 Yr power 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
22.53%. Excellent low light
performance. Higher power
output under the conditions
of haze, overcast, etc.

www.sunpower.com



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

Typical type	410W	415W	420W	425W	430W	435W	440W
Max power(Pmax)	410	415	420	425	430	435	440
Max power voltage(Vmp)	31.25	31.37	31.49	31.64	31.79	31.94	32.09
Max power current(Imp)	13.12	13.23	13.34	13.44	13.53	13.62	13.72
Open circuit voltage(Voc)	37.94	38.04	38.13	38.24	38.34	38.43	38.53
Short circuit current(Isc)	13.85	13.96	14.07	14.16	14.25	14.34	14.43
Module Efficiency(%)	21.00	21.25	21.51	21.76	22.02	22.28	22.53
Max system voltage	DC 1500V (TÜV,UL)						
Maximum Series Fuse Rating	30A						

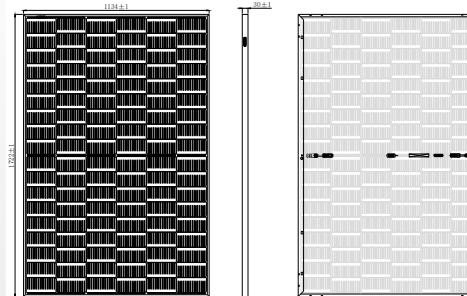
Electrical Characteristics with 15% Rear Side Power Gain

Front power Pmax/W	410W	415W	420W	425W	430W	435W	440W
Total power Pmax/W	471.50	477.25	483.00	488.75	494.50	500.25	506
Max power voltage(Vmp)	31.25	31.37	31.49	31.64	31.79	31.94	32.09
Max power current(Imp)	15.09	15.21	15.34	15.45	15.56	15.66	15.77
Open circuit voltage(Voc)	37.94	38.04	38.13	38.24	38.34	38.43	38.53
Short circuit current(Isc)	15.93	16.05	16.18	16.28	16.39	16.49	16.59

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

Typical type	410W	415W	420W	425W	430W	435W	440W
Max power(Pmax)	308	312	316	320	324	325	329
Max power voltage(Vmp)	29.4	29.5	29.6	29.7	29.9	29.8	29.9
Max power current(Imp)	10.49	10.58	10.67	10.75	10.84	10.91	11.00
Open circuit voltage(Voc)	35.7	35.8	35.9	36	36.1	36.00	36.10
Short circuit current(Isc)	11.16	11.25	11.34	11.41	11.48	11.56	11.63

DIMENSIONS AND STRUCTURE



Mechanical Data

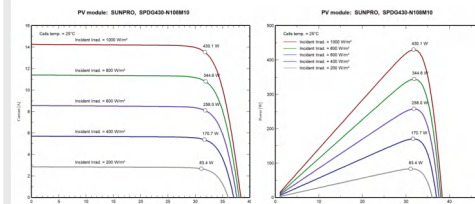
Dimensions	1722×1134×30mm
Weight	23.3kg
Glass	(F)2.0mm ultra clear embossed double layer colorless glass (B)2.0mm black mesh glazed tempered glass
Output cables	4mm ² , symmetrical lengths 1100mm
Connectors	MC4 compatible IP68
Cell type	N type Mono-Crystalline, 182mm×91mm
Number of cells	108cells (Half-Cell)

Temperature Characteristics

Temp.Coeff.of Isc(TK Isc)	0.046%/°C	Container	40'HQ
Temp.Coeff.of Voc(TK Voc)	-0.25%/°C	Pieces per pallet	36
Temp.Coeff.of Pmax(TK Pmax)	-0.30%/°C	Pallets per container	26
Operating temperature	-40~+85°C	Pieces per container	936
Normal operating cell temperature	45±2°C		

Packing Configuration

I-V CHARACTERISTICS AT DIFFERENT IRRADIATION

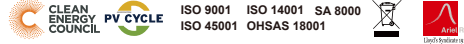


Tests, Certifications and Warranties

Standard tests	IEC 61215, IEC 61730, IEC 61701, IEC 62716, PPP 58042
System certs	ISO 9001, ISO14001, ISO45001
Certifications	TÜV, CE, CEC, UL, 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

Tier1

BloombergNEF

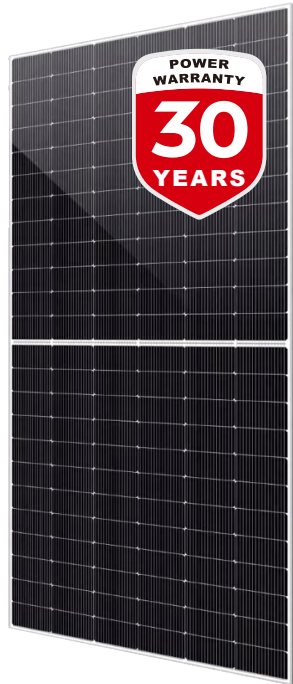
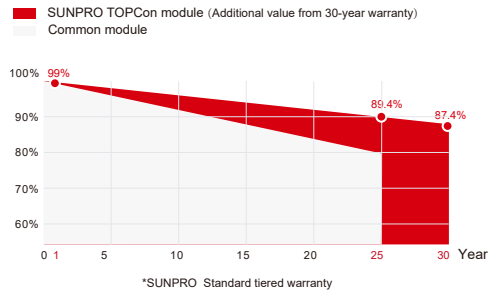


M10 TOPCON MONO

SPDGxxx-N144M10
550~585W

- Double glass
- Silver frame
- White mesh

25 Yr quality guarantee | 30 Yr power 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 22.64%. Excellent low light performance. Higher power output under the conditions of haze, overcast, etc.

www.sunpropower.com



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

Typical type	550W	555W	560W	565W	570W	575W	580W	585W
Max power(Pmax)	550	555	560	565	570	575	580	585
Max power voltage(Vmp)	41.73	41.86	41.99	42.13	42.26	42.41	42.56	42.72
Max power current(Imp)	13.18	13.26	13.34	13.41	13.49	13.56	13.63	13.70
Open circuit voltage(Voc)	50.56	50.7	50.84	50.98	51.13	51.28	51.43	51.58
Short circuit current(Isc)	13.95	14.01	14.07	14.13	14.2	14.27	14.34	14.41
Module Efficiency(%)	21.28	21.48	21.67	21.86	22.06	22.25	22.44	22.64
Max system voltage	DC 1500V (TÜV,UL)							
Maximum Series Fuse Rating	30A							

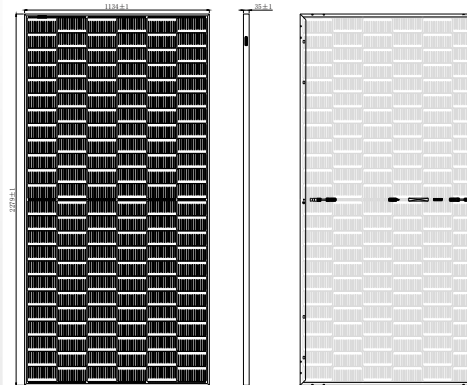
Electrical Characteristics with 15% Rear Side Power Gain

Front power Pmax/W	550W	555W	560W	565W	570W	575W	580W	585W
Total power Pmax/W	632.5	638.25	644	649.75	655.5	661.25	667	672.75
Vmp/V(Total)	41.73	41.86	41.99	42.13	42.26	42.41	42.56	42.72
Imp/A(Total)	15.16	15.25	15.34	15.42	15.51	15.59	15.67	15.75
Voc/V(Total)	50.56	50.7	50.84	50.98	51.13	51.28	51.43	51.58
Isc/A(Total)	16.04	16.11	16.18	16.25	16.33	16.41	16.49	16.57

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

Typical type	550W	555W	560W	565W	570W	575W	580W	585W
Max power(Pmax)	411	417	421	425	429	433	436.7	437.3
Max power voltage(Vmp)	38.9	39.3	39.5	39.7	39.7	39.9	40.1	39.9
Max power current(Imp)	10.56	10.62	10.67	10.72	10.79	10.85	10.90	10.96
Open circuit voltage(Voc)	47.4	47.7	47.9	48.1	48.2	48.4	48.5	48.3
Short circuit current(Isc)	11.24	11.29	11.34	11.39	11.44	11.50	11.56	11.61

DIMENSIONS AND STRUCTURE



Mechanical Data

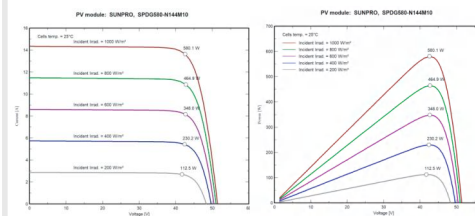
Dimensions	2279x1134x35mm
Weight	32 kg
Glass	(F) 2.0mm ultra clear embossed double layer colorless glass (B) 2.0mm white mesh glazed tempered glass
Output cables	4mm ² , symmetrical lengths 1300mm
Connectors	MC4 compatible IP68
Cell type	N type Mono-Crystalline, 182mmx91mm
Number of cells	144cells (Half-Cell)

Temperature Characteristics

Temp.Coeff.of Isc(TK Isc)	0.046%/°C	Container	40'HQ
Temp.Coeff.of Voc(TK Voc)	-0.25%/°C	Pieces per pallet	31
Temp.Coeff.of Pmax(TK Pmax)	-0.30%/°C	Pallets per container	20
Operating temperature	-40~+85°C	Pieces per container	620
Normal operating cell temperature	45±2°C		

Packing Configuration

I-V CHARACTERISTICS AT DIFFERENT IRRADIATION



Tests, Certifications and Warranties

Standard tests	IEC 61215, IEC 61730, IEC 61701, IEC 62716, PPP 58042
System certs	ISO 9001, ISO14001, ISO45001
Certifications	TÜV, CE, CEC, UL, 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

Tier1

BloombergNEF



M12 TOPCON MONO

SPDGxxx-N132M12

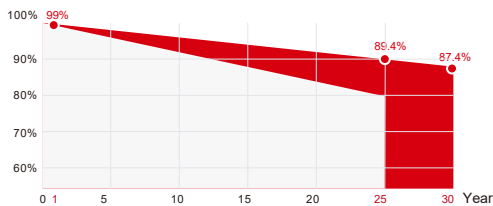
685~720W

- Double glass
- Silver frame
- White mesh



25 Yr quality guarantee | 30 Yr power warranty

■ SUNPRO TOPCon module (Additional value from 30-year warranty)
 ■ Common module



*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 23.18%. Excellent low light performance. Higher power output under the conditions of haze, overcast, etc.

www.sunpropower.com



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

Typical type	685W	690W	695W	700W	705W	710W	715W	720W
Max power(Pmax)	685	690	695	700	705	710	715	720
Max power voltage(Vmp)	39.91	40.12	40.32	40.51	40.69	40.88	41.07	41.27
Max power current(Imp)	17.17	17.2	17.24	17.28	17.33	17.37	17.41	17.45
Open circuit voltage(Voc)	47.69	47.88	48.08	48.27	48.46	48.65	48.85	49.04
Short circuit current(Isc)	18.21	18.25	18.28	18.32	18.36	18.4	18.44	18.48
Module Efficiency(%)	22.05	22.21	22.37	22.53	22.70	22.86	23.02	23.18
Max system voltage	DC 1500V (TÜV)							
Maximum Series Fuse Rating	35A							

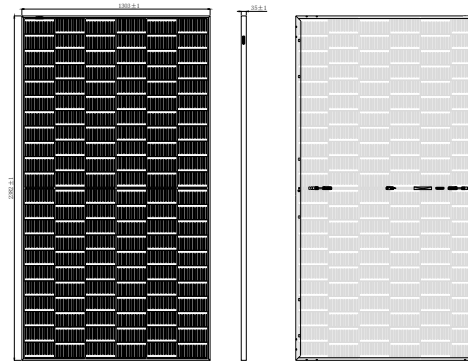
Electrical Characteristics with 15% Rear Side Power Gain

Front power Pmax/W	685W	690W	695W	700W	705W	710W	715W	720W
Total power Pmax/W	787.75	793.5	799.25	805	810.75	816.5	822.25	828
Vmp/V(Total)	39.91	40.12	40.32	40.51	40.69	40.88	41.07	41.27
Imp/A(Total)	19.74	19.78	19.82	19.87	19.93	19.97	20.02	20.06
VocV(Total)	47.69	47.88	48.08	48.27	48.46	48.65	48.85	49.04
IscA(Total)	20.94	20.99	21.02	21.07	21.11	21.16	21.21	21.25

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	715W	720W
Max power(Pmax)	517.7	521.7	525.6	529.5	533.8	537.9	541.9	546
Max power voltage(Vmp)	37.4	37.6	37.8	38	38.2	38.40	38.60	38.8
Max power current(Imp)	13.84	13.87	13.91	13.94	13.98	14.01	14.04	14.07
Open circuit voltage(Voc)	45.2	45.4	45.6	45.8	46	46.20	46.40	46.6
Short circuit current(Isc)	14.65	14.68	14.70	14.74	14.77	14.80	14.83	14.86

DIMENSIONS AND STRUCTURE



Mechanical Data

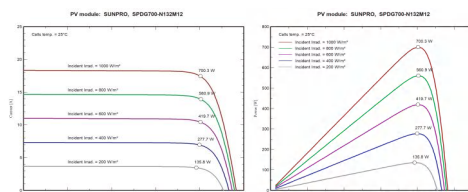
Dimensions	2382×1303×35mm
Weight	38.3kg
Glass	(F) 2.0mm ultra clear embossed double layer colorless glass (B) 2.0mm white mesh glazed tempered glass
Output cables	4mm ² , symmetrical lengths 1300mm
Connectors	MC4 compatible IP68
Cell type	Mono-Crystalline, N type Bifacial, 210mm x 105mm
Number of cells	132cells (Half-Cell)

Temperature Characteristics

Temp.Coeff. of Isc(TK Isc)	0.045%/ °C	Container	40'HQ
Temp.Coeff. of Voc(TK Voc)	-0.25%/°C	Pieces per pallet	31
Temp.Coeff. of Pmax(TK Pmax)	-0.30%/°C	Pallets per container	18
Operating temperature	-40~+85°C	Pieces per container	558
Normal operating cell temperature	45±2°C		

Packing Configuration

I-V CHARACTERISTICS AT DIFFERENT IRRADIATION



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

ADD.: QINGGANG TECHNOLOGICAL IND. ZONE, YUHUAN CITY, ZHEJIANG PROVINCE, CHINA
 TEL.: +86 0576-80730906 E-MAIL: info@sunpropower.com WEBSITE: www.sunpropower.com

Tier1

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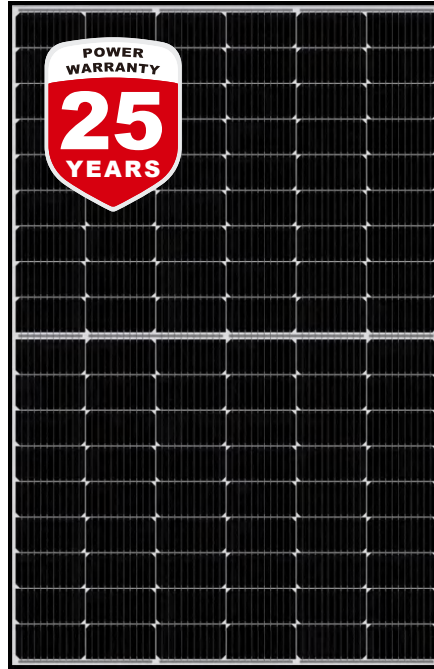
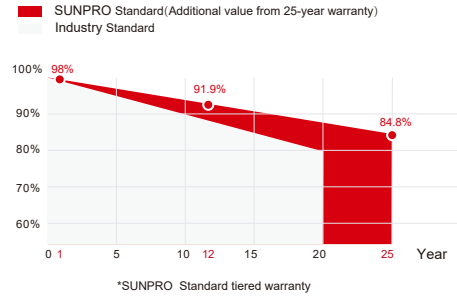


M10 HI-EFF TWIN MONO

SPxxx-108M10
390~420W

- Black frame
- Silver frame
- Full black
- Bifacial

12Yr quality guarantee | 25Yr power warranty



WARRANTY & GUARANTEE

Linear output power guarantee
12 years: 91.9% power output
25 years: 84.8% 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 21.48%. Excellent low light performance. Higher power output under the conditions of haze, overcast, etc.



POWER TOLERANCE

Power positive tolerance: 0~+5W

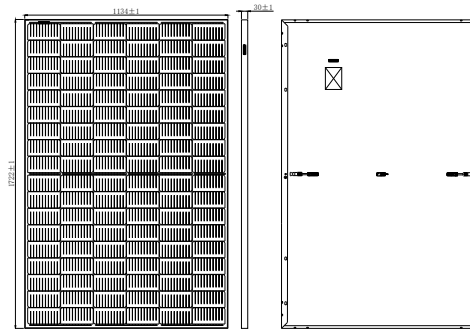
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Electrical parameters at standard test conditions (STC:AM=1.5, 1000W/m², Cells Temperature 25°C)

Typical type	390W	395W	400W	405W	410W	415W	420W
Max power(Pmax)	390	395	400	405	410	415	420
Max power voltage(Vmp)	30.41	30.62	30.83	31.04	31.25	31.47	31.69
Max power current(Imp)	12.83	12.90	12.98	13.05	13.12	13.19	13.26
Open circuit voltage(Voc)	36.53	36.73	36.93	37.13	37.33	37.53	37.73
Short circuit current(Isc)	13.62	13.69	13.76	13.83	13.90	13.97	14.04
Module Efficiency(%)	19.95	20.20	20.46	20.72	20.97	21.23	21.48
Max system voltage	DC 1500V(TÜV,UL) / 1000V(CUL)						
Maximum Series Fuse Rating	25A						

DIMENSIONS AND STRUCTURE



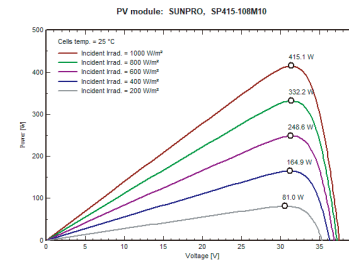
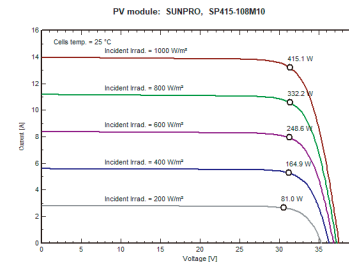
Electrical parameters at NMOT test conditions (Irradiance 800W/m², Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s)

Typical type	390W	395W	400W	405W	410W	415W	420W
Max power(Pmax)	290	294	298	301	305	309	313
Max power voltage(Vmp)	28.00	28.30	28.40	28.60	28.80	29.00	29.20
Max power current(Imp)	10.34	10.40	10.46	10.52	10.58	10.65	10.71
Open circuit voltage(Voc)	34.00	34.30	34.50	34.60	34.80	35.00	35.20
Short circuit current(Isc)	10.98	11.04	11.09	11.15	11.20	11.26	11.32

Mechanical Data

Dimensions	1722x1134x30mm
Weight	21kg
Glass	3.2mm ultra clear embossed tempered coated glass
Output cables	4mm ² , symmetrical lengths 1100mm
Connectors	MC4 compatible IP68
Cell type	Mono-Crystalline PERC, 182mmx91mm
Number of cells	108 cells (Half-Cell)

I-V CHARACTERISTICS AT DIFFERENT IRRADIATION



Temperature Characteristics

Temp. Coeff. of Isc(TK Isc)	0.048%/°C	Container	40'HQ
Temp. Coeff. of Voc(TK Voc)	-0.27%/°C	Pieces per pallet	36
Temp. Coeff. of Pmax(TK Pmax)	-0.34%/°C	Pallets per container	26
Operating temperature	-40~+85°C	Pieces per container	936
Normal operating cell temperature	44±2°C		

Packing Configuration

Tests, Certifications and Warranties

Standard tests	IEC 61215, IEC 61730, IEC 61701, IEC 62716, PPP 58042
System certs	ISO 9001, ISO14001, ISO45001
Certifications	TÜV, CE, UL, CEC, INMETRO, 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	12 years product warranty and 25 years 84.8% of power

Tier1

BloombergNEF

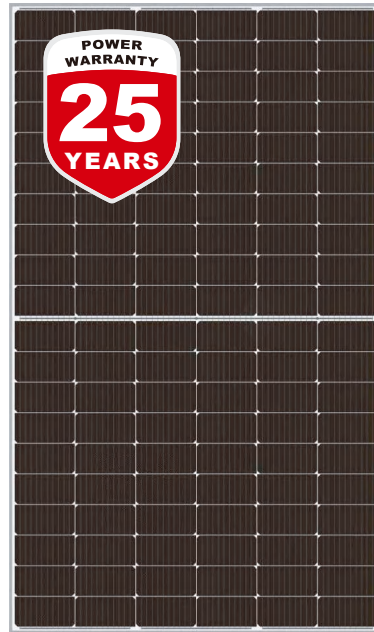
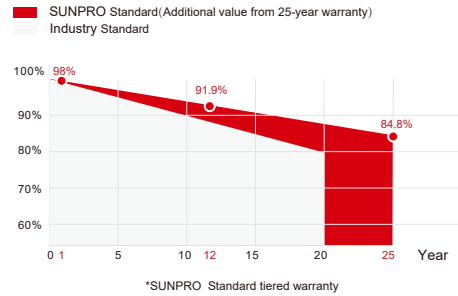


M10 HI-EFF TWIN MONO

SPxxx-120M10
435~470W

- Silver frame
- Black frame
- Full black

12Yr quality guarantee | 25Yr power warranty



WARRANTY & GUARANTEE

Linear output power guarantee
12 years: 91.9% power output
25 years: 84.8% 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 21.70%. Excellent low light performance. Higher power output under the conditions of haze, overcast, etc.



POWER TOLERANCE

Power positive tolerance: 0~+5W

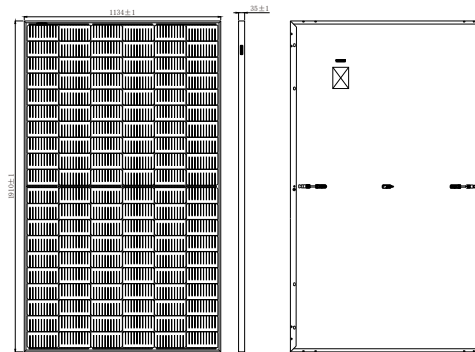
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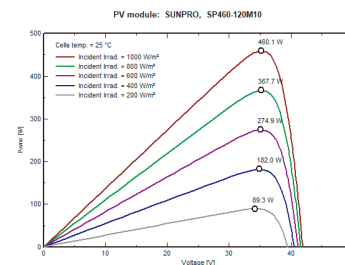
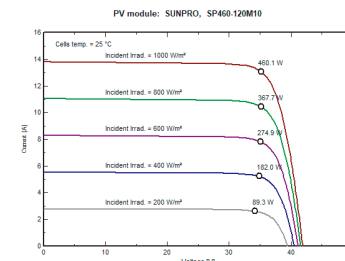
Electrical parameters at standard test conditions (STC:AM=1.5, 1000W/m², Cells Temperature 25°C)

Typical type	435W	440W	445W	450W	455W	460W	465W	470W
Max power(Pmax)	435	440	445	450	455	460	465	470
Max power voltage(Vmp)	34.07	34.32	34.56	34.81	35.06	35.31	35.56	35.81
Max power current(Imp)	12.77	12.83	12.88	12.93	12.98	13.03	13.08	13.13
Open circuit voltage(Voc)	40.80	41.10	41.30	41.50	41.70	41.90	42.10	42.30
Short circuit current(Isc)	13.55	13.60	13.65	13.70	13.75	13.80	13.85	13.90
Module Efficiency(%)	20.08	20.31	20.55	20.78	21.01	21.24	21.47	21.70
Max system voltage	DC 1500V(TÜV) / 1000(CUL)							
Maximum Series Fuse Rating	25A							

DIMENSIONS AND STRUCTURE



I-V CHARACTERISTICS AT DIFFERENT IRRADIATION



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

Typical type	435W	440W	445W	450W	455W	460W	465W	470W
Max power(Pmax)	324	328	331	335	339	342	346	350
Max power voltage(Vmp)	31.40	31.70	31.80	32.10	32.30	32.50	32.70	32.90
Max power current(Imp)	10.30	10.34	10.40	10.44	10.49	10.54	10.58	10.63
Open circuit voltage(Voc)	38.10	38.30	38.50	38.70	38.90	39.10	39.30	39.40
Short circuit current(Isc)	10.92	10.96	11.00	11.04	11.08	11.12	11.16	11.20

Mechanical Data

Dimensions	1910x1134x35mm
Weight	22.5 kg
Glass	3.2mm ultra clear embossed tempered coated glass
Output cables	4mm ² , symmetrical lengths 1100mm
Connectors	MC4 compatible IP68
Cell type	Mono-Crystalline PERC, 182mm x 91mm
Number of cells	120cells (Half-Cell)

Temperature Characteristics

Temp.Coeff.of Isc(TK Isc)	0.048%/°C
Temp.Coeff.of Voc(TK Voc)	-0.27%/°C
Temp.Coeff.of Pmax(TK Pmax)	-0.34%/°C
Operating temperature	-40~+85°C
Normal operating cell temperature	44±2°C

Packing Configuration

Container	40'HQ
Pieces per pallet	31
Pallets per container	24
Pieces per container	744

Tests, Certifications and Warranties

Standard tests	IEC 61215, IEC 61730, IEC 61701, IEC 62716, PPP 58042
System certs	ISO 9001, ISO14001, ISO45001
Certifications	TÜV, CE, UL, INMETRO, 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	12 years product warranty and 25 years 84.8% of power

ADD.: QINGGANG TECHNOLOGICAL IND. ZONE, YUHUAN CITY, ZHEJIANG PROVINCE, CHINA
TEL.: +86 0576-80730906 E-MAIL: info@sunpropower.com WEBSITE: www.sunpropower.com

Tier1

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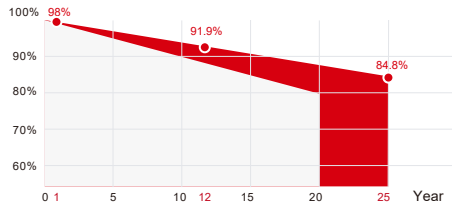
M10 HI-EFF TWIN MONO

SPxxx-144M10
530~565W

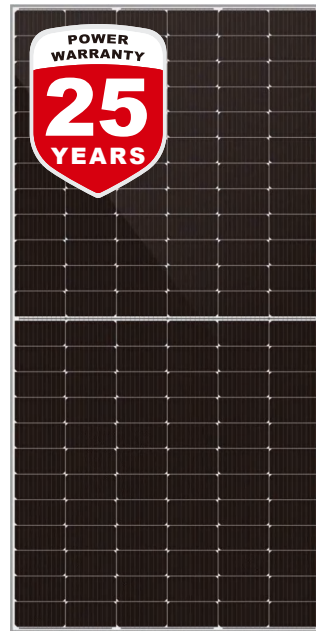
- Silver frame
- Black frame
- Full black
- Bifacial

12Yr quality guarantee | 25Yr 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: 84.8% 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 21.86%. Excellent low light performance. Higher power output under the conditions of haze, overcast, etc.



POWER TOLERANCE

Power positive tolerance: 0~+5W

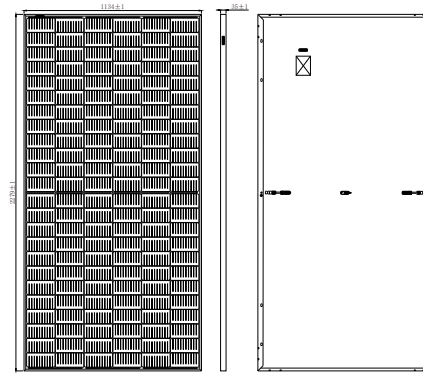
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Electrical parameters at standard test conditions (STC:AM=1.5, 1000W/m², Cells Temperature 25°C)

Typical type	530W	535W	540W	545W	550W	555W	560W	565W
Max power(Pmax)	530	535	540	545	550	555	560	565
Max power voltage(Vmp)	41.39	41.54	41.69	41.83	41.96	42.09	42.23	42.36
Max power current(Imp)	12.81	12.88	12.96	13.03	13.11	13.19	13.27	13.34
Open circuit voltage(Voc)	49.26	49.42	49.58	49.74	49.90	50.06	50.22	50.38
Short circuit current(Isc)	13.69	13.76	13.84	13.92	14.00	14.08	14.16	14.24
Module Efficiency(%)	20.51	20.70	20.89	21.09	21.28	21.48	21.67	21.86
Max system voltage	DC 1500V(TÜV,UL) / 1000V(CUL)							
Maximum Series Fuse Rating	25A							

DIMENSIONS AND STRUCTURE



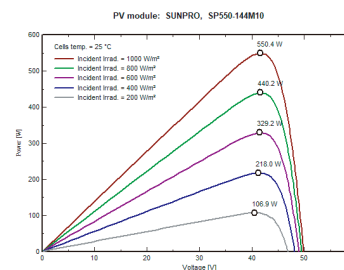
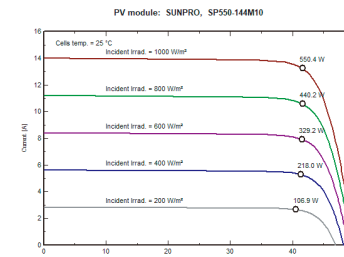
Electrical parameters at NMOT test conditions (Irradiance 800W/m², Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s)

Typical type	530W	535W	540W	545W	550W	555W	560W	565W
Max power(Pmax)	395	399	402	406	410	413	417	421
Max power voltage(Vmp)	37.90	38.10	38.20	38.30	38.50	38.6	38.7	38.8
Max power current(Imp)	10.41	10.47	10.53	10.59	10.65	10.71	10.77	10.83
Open circuit voltage(Voc)	46.00	46.10	46.20	46.40	46.50	46.7	46.8	47
Short circuit current(Isc)	11.04	11.09	11.16	11.22	11.28	11.35	11.41	11.48

Mechanical Data

Dimensions	2279x1134x35mm
Weight	27 kg
Glass	3.2mm ultra clear embossed tempered coated glass
Output cables	4mm ² , symmetrical lengths 1300mm
Connectors	MC4 compatible IP68
Cell type	Mono-Crystalline PERC, 182mm x 91mm
Number of cells	144 cells (Half-Cell)

I-V CHARACTERISTICS AT DIFFERENT IRRADIATION



Temperature Characteristics

Temp.Coeff.of Isc(TK Isc)	0.048%/°C	Container	40'HQ
Temp.Coeff.of Voc(TK Voc)	-0.27%/°C	Pieces per pallet	31
Temp.Coeff.of Pmax(TK Pmax)	-0.34%/°C	Pallets per container	20
Operating temperature	-40~+85°C	Pieces per container	620
Normal operating cell temperature	44±2°C		

Packing Configuration

Tests, Certifications and Warranties

Standard tests	IEC 61215, IEC 61730, IEC 61701, IEC 62716, PPP 58042
System certs	ISO 9001, ISO14001, ISO45001
Certifications	TÜV, CE, UL, CEC, INMETRO, 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	12 years product warranty and 25 years 84.8% of power

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TEL: +86 0576-80730906 E-MAIL: info@sunpropower.com WEBSITE: www.sunpropower.com

Tier1

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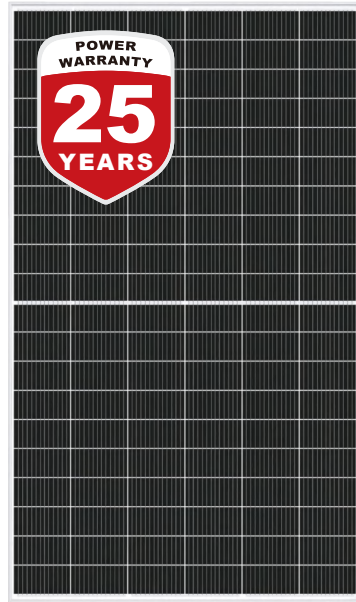
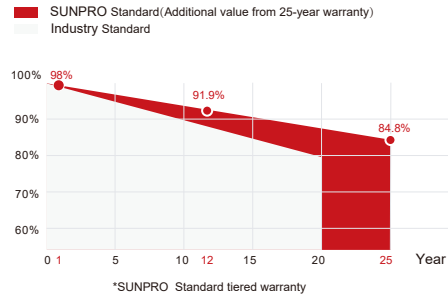


M12 HI-EFF TWIN MONO

SPxxx-120M12
580~605W

- Silver frame
- Black frame
- Full black
- Bifacial

12Yr quality guarantee | 25Yr power warranty



WARRANTY & GUARANTEE

Linear output power guarantee
12 years: 91.9% power output
25 years: 84.8% 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.



POWER TOLERANCE

Power positive tolerance: 0~+5W

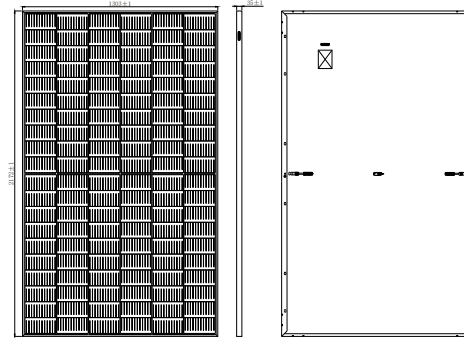
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Electrical parameters at standard test conditions (STC:AM=1.5, 1000W/m², Cells Temperature 25°C)

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(%)	20.49	20.67	20.85	21.02	21.20	21.38
Max system voltage	DC 1500V(TÜV,UL) / 1000V(CUL)					
Maximum Series Fuse Rating	30A					

DIMENSIONS AND STRUCTURE



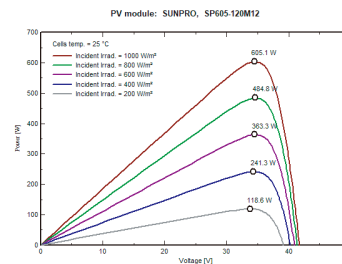
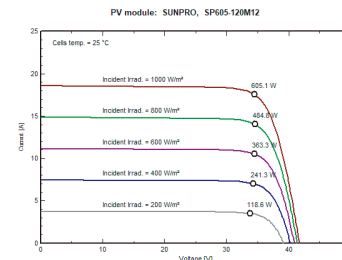
Electrical parameters at NMOT test conditions (Irradiance 800W/m², Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s)

Typical type	580W	585W	590W	595W	600W	605W
Max power(Pmax)	432	436	439	443	447	450
Max power voltage(Vmp)	31.20	31.40	31.60	31.70	31.90	32.00
Max power current(Imp)	13.84	13.88	13.92	13.97	14.02	14.06
Open circuit voltage(Voc)	38.00	38.20	38.40	38.60	38.80	39.00
Short circuit current(Isc)	14.74	14.78	14.82	14.86	14.90	14.94

Mechanical Data

Dimensions	2172x1303x35mm
Weight	31.5 kg
Glass	3.2mm ultra clear embossed tempered coated glass
Output cables	4mm ² , symmetrical lengths 1300mm
Connectors	MC4 compatible IP68
Cell type	Mono-Crystalline PERC, 210mm x 105mm
Number of cells	120 cells (Half-Cell)

I-V CHARACTERISTICS AT DIFFERENT IRRADIATION



Temperature Characteristics

Temp. Coeff. of Isc(TK Isc)	0.05%/°C	Container	40'HQ
Temp. Coeff. of Voc(TK Voc)	-0.27%/°C	Pieces per pallet	31
Temp. Coeff. of Pmax(TK Pmax)	-0.34%/°C	Pallets per container	18
Operating temperature	-40~+85°C	Pieces per container	558
Normal operating cell temperature	44±2°C		

Packing Configuration

Tests, Certifications and Warranties

Standard tests	IEC 61215, IEC 61730, IEC 61701, IEC 62716, PPP 58042
System certs	ISO 9001, ISO14001, ISO45001
Certifications	TÜV, CE, UL, INMETRO, 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	12 years product warranty and 25 years 84.8% of power

Tier1

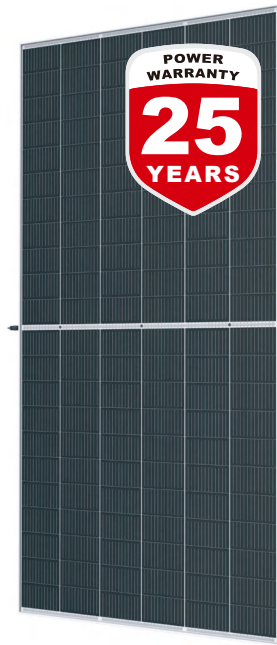
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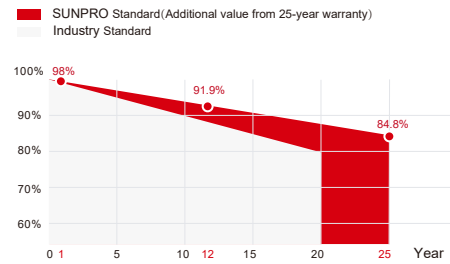
M12 HI-EFF TWIN MONO

SPxxx-132M12
635~670W

- Silver frame
- Black frame
- Full black
- Bifacial



12Yr quality guarantee | 25Yr power warranty



*SUNPRO Standard tiered warranty



WARRANTY & GUARANTEE

Linear output power guarantee
12 years: 91.9% power output
25 years: 84.8% 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 21.57%. Excellent low light performance. Higher power output under the conditions of haze, overcast, etc.



POWER TOLERANCE

Power positive tolerance: 0~+5W

www.sunpropower.com

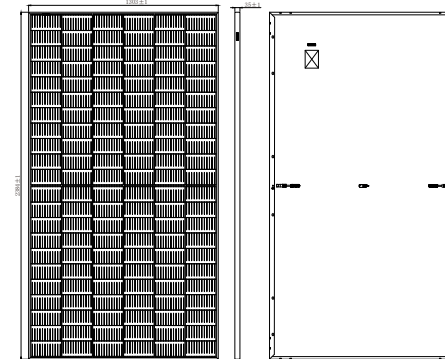


Electrical parameters at standard test conditions (STC:AM=1.5, 1000W/m², Cells Temperature 25°C)

Typical type

	635W	640W	645W	650W	655W	660W	665W	670W
Max power(Pmax)	635	640	645	650	655	660	665	670
Max power voltage(Vmp)	36.75	36.97	37.18	37.38	37.58	37.79	38.01	38.22
Max power current(Imp)	17.28	17.31	17.35	17.39	17.43	17.47	17.5	17.53
Open circuit voltage(Voc)	44.64	44.85	45.06	45.27	45.48	45.69	45.91	46.13
Short circuit current(Isc)	18.32	18.36	18.4	18.44	18.48	18.52	18.56	18.60
Module Efficiency(%)	20.44	20.60	20.76	20.92	21.09	21.25	21.41	21.57
Max system voltage	DC 1500V(TÜV,UL) / 1000V(CUL)							
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)

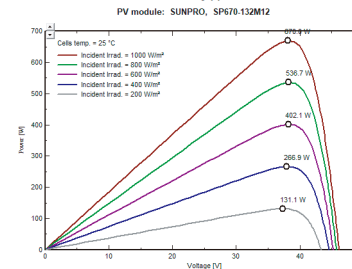
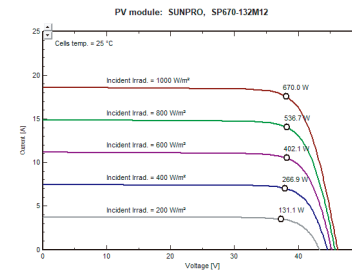
Typical type

	635W	640W	645W	650W	655W	660W	665W	670W
Max power(Pmax)	474	478	482	484	490	494	499	509
Max power voltage(Vmp)	34.30	34.50	34.70	34.70	35.10	35.30	35.50	36.20
Max power current(Imp)	13.83	13.86	13.90	13.93	13.96	14.00	14.03	14.07
Open circuit voltage(Voc)	41.80	42.00	42.30	42.30	42.70	42.90	43.20	43.90
Short circuit current(Isc)	14.74	14.77	14.80	14.84	14.87	14.90	14.93	14.96

Mechanical Data

Dimensions	2384x1303x35mm
Weight	34 kg
Glass	3.2mm ultra clear embossed tempered coated glass
Output cables	4mm ² , symmetrical lengths 1300mm
Connectors	MC4 compatible IP68
Cell type	Mono-Crystalline PERC, 210mm x 105mm
Number of cells	132 cells (Half-Cell)

I-V CHARACTERISTICS AT DIFFERENT IRRADIATION



Temperature Characteristics

Temp.Coeff.of Isc(TK Isc)	0.050%/°C	Container	40'HQ
Temp.Coeff.of Voc(TK Voc)	-0.27%/°C	Pieces per pallet	31
Temp.Coeff.of Pmax(TK Pmax)	-0.34%/°C	Pallets per container	18
Operating temperature	-40~+85°C	Pieces per container	558
Normal operating cell temperature	44±2°C		

Packing Configuration

Tests, Certifications and Warranties

Standard tests	IEC 61215, IEC 61730, IEC 61701, IEC 62716, PPP 58042
System certs	ISO 9001, ISO 14001, ISO 45001
Certifications	TÜV, CE, UL, CEC, 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	12 years product warranty and 25 years 84.8% of power

ADD.: QINGGANG TECHNOLOGICAL IND. ZONE, YUHUAN CITY, ZHEJIANG PROVINCE, CHINA
TEL.: +86 0576-80730906 E-MAIL: info@sunpropower.com WEBSITE: www.sunpropower.com

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BloombergNEF



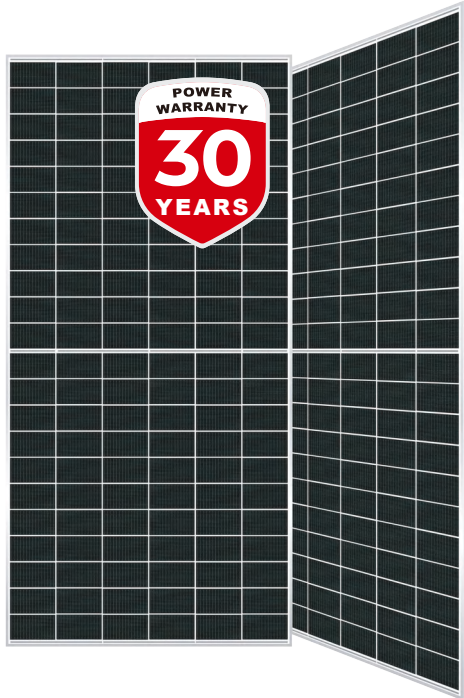
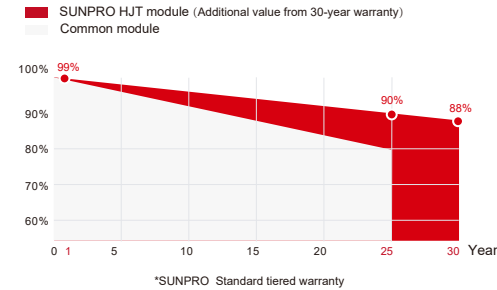
G12 HIEFF TWIN MONO (HJT)

SP-210-132DSXXX

685~720W

- Double glass
- Silver frame
- White mesh

15 Yr quality guarantee | 30Yr power warranty



WARRANTY & GUARANTEE

Linear output power guarantee
25 years: 90% power output
30 years: 88% power output



WITHSTAND STRONG

Snow load 5400Pa
Wind load 2400Pa



ADVANCED BIFACIAL EFFICIENCY

Bifaciality>95%, effectively improves backside power generation. A bifacial cell design that generates energy from both sides, capturing and converting more sunlight into power.



R&D AND PRODUCTION

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



HIGH ENERGY YIELD

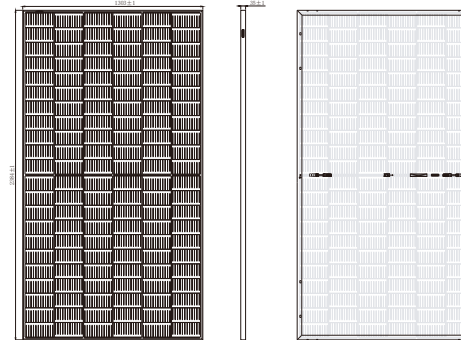
Efficiency can reach 23.18%. Excellent weak light performance and better performance in hot climate. Leading temper a ture coefficient for more production when the sun shines strongest, Or under the cloudy, haze condition



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

Typical type	685W	690W	695W	700W	705W	710W	715W	720W
Max power(Pmax)	685	690	695	700	705	710	715	720
Max power voltage(Vmp)	41.65	41.8	41.95	42.1	42.25	42.39	42.54	42.68
Max power current(Imp)	16.45	16.51	16.57	16.63	16.69	16.75	16.81	16.87
Open circuit voltage(Voc)	49.66	49.82	49.98	50.13	50.29	50.44	50.59	50.74
Short circuit current(Isc)	17.25	17.31	17.37	17.43	17.49	17.55	17.61	17.67
Module Efficiency(%)	22.05	22.21	22.37	22.53	22.70	22.86	23.02	23.18
Max system voltage	DC 1500V(TÜV)							
Maximum Series Fuse Rating	35A							

DIMENSIONS AND STRUCTURE



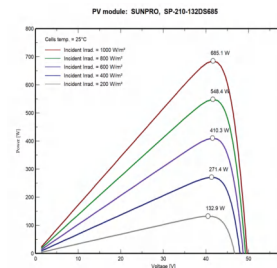
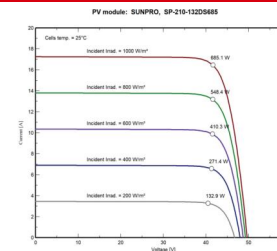
Electrical Characteristics with 15% Rear Side Power Gain

Front power Pmax/W	685W	690W	695W	700W	705W	710W	715W	720W
Total power Pmax/W	787.75	793.50	799.25	805	810.75	816.5	822.25	828
Vmp/V(Total)	41.65	41.8	41.95	42.1	42.25	42.39	42.54	42.68
Imp/A(Total)	18.91	18.98	19.05	19.12	19.19	19.26	19.33	19.40
Voc/V(Total)	49.66	49.82	49.98	50.13	50.29	50.44	50.59	50.74
Isc/A(Total)	19.83	19.90	19.97	20.04	20.11	20.18	20.25	20.32

Mechanical Data

Dimensions	2384x1303x35mm
Weight	38.7kg
Glass	(F)2.0mm ultra clear embossed semi-tempered coated glass (B)2.0mm white mesh semi-tempered glass
Output cables	4mm ² , 1300mm in length, length can be customized / UV Resistant
Connectors	MC4 compatible IP68
Cell type	Mono-Crystalline, Bifacial HJT, 210mmx105mm
Number of cells	132 cells (Half-Cell)

I-V CHARACTERISTICS AT DIFFERENT IRRADIATION



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