Tier1
BloombergNEF

Ariel Re
Lloyd's Syndicate 1910

YHSUNPRO POWER

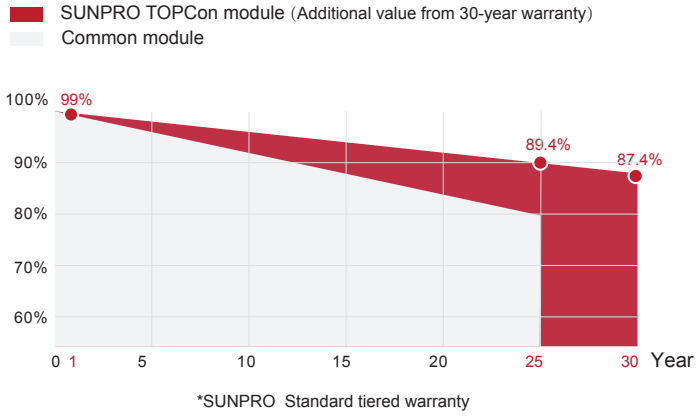
PV CYCLE ISO14001 ISO9001 ISO45001 INMETRO

M10 N TYPE MONO

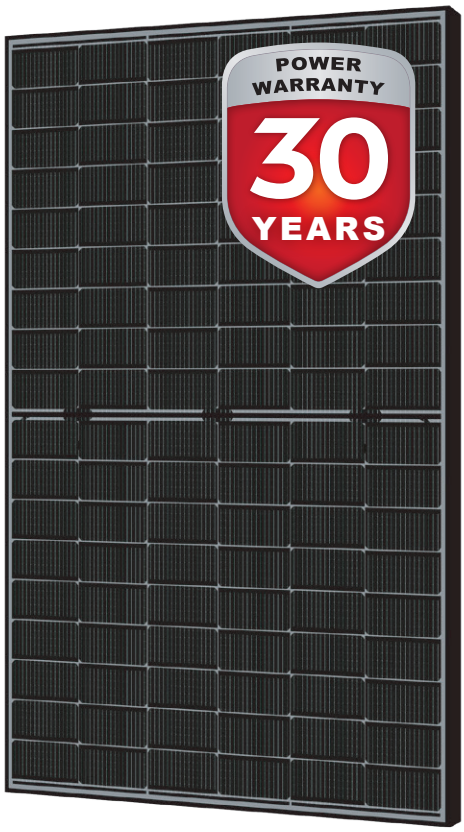
SPDGxxx-N108M10

· Double glass (xxx=410~430W)
· Full black
· Silver frame
· Black frame

15 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~+3%.
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 22.00%. 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℃)

Typical type	410W	415W	420W	425W	430W
Max power(Pmax)	410	415	420	425	430
Max power voltage(Vmp)	31.35	31.68	32.02	32.35	32.68
Max power current(Imp)	13.08	13.10	13.12	13.14	13.16
Open circuit voltage(Voc)	38.34	38.41	38.48	38.54	38.60
Short circuit current(Isc)	13.76	13.77	13.78	13.79	13.80
Module Efficiency(%)	21.00	21.30	21.50	21.80	22.00
Max system voltage	DC 1500V（TUV）/1500V(UL)				
Maximum Series Fuse Rating	30A				

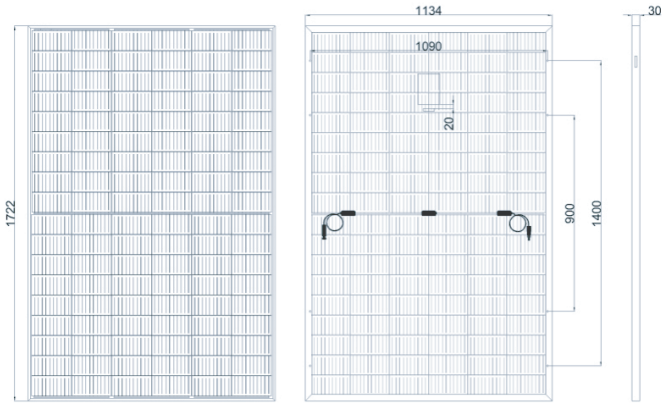
Electrical Characteristics with 15% Rear Side Power Gain
(Take 420W as an example)

Back power gain	10%	15%	20%	25%	30%
Max power(Pmax)	462	483	504	525	546
Max power voltage(Vmp)	32.02	32.02	32.12	32.12	32.12
Max power current(Imp)	15.16	15.85	16.49	17.18	17.87
Open circuit voltage(Voc)	38.48	38.48	38.58	38.58	38.58
Short circuit current(Isc)	15.16	15.85	16.49	17.18	17.87

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

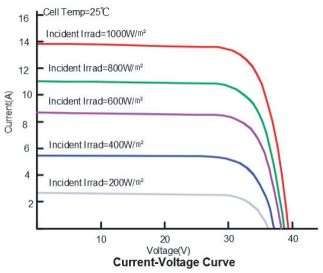
Typical type	410W	415W	420W	425W	430W
Max power(Pmax)	310.0	313.0	316.0	319.0	322.0
Max power voltage(Vmp)	29.59	29.82	30.05	30.28	30.51
Max power current(Imp)	10.48	10.50	10.52	10.54	10.56
Open circuit voltage(Voc)	36.29	36.35	36.40	36.46	36.52
Short circuit current(Isc)	11.09	11.10	11.11	11.11	11.12

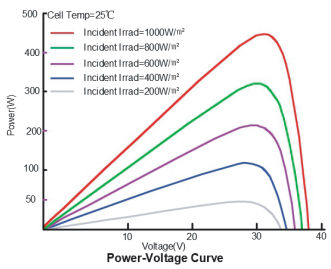
DIMENSIONS AND STRUCTURE



Length: + 2mm
Width:+ 2mm
Thickness:+ 1mm
Hole pitch:+ 2mm

I-V CHARACTERISTICS AT DIFFERENT IRRADIATION





Mechanical Data

Dimensions	1722x1134x30mm
Weight	24.3kg ±3%
Glass	(F) 2.0 mm High Transmission, AR Coated Heat Strengthened Glass (B) 2.0 mm High Transmission, AR Coated Heat Strengthened Glass
Output cables	4mm², symmetrical lengths 1100mm
Connectors	MC4 compatible IP68
Cell type	N type Mono-Crystalline , 16BB , 182x91mm
Number of cells	108cells (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	42±2℃

Packing Configuration

Container	40'GP
Pieces per pallet	72
Pallets per container	13
Pieces per container	936

Tests, Certifications and Warranties

Standard tests	IEC 61701, IEC 62716, PPP 58042
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	0~+5W
Junction box	IP 68
Warranties	15 years product warranty and 30 years 87.4% of power

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