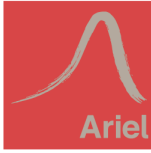


Tier1

BloombergNEF



Lloyd's Syndicate 1910



ISO14001

ISO9001

ISO45001



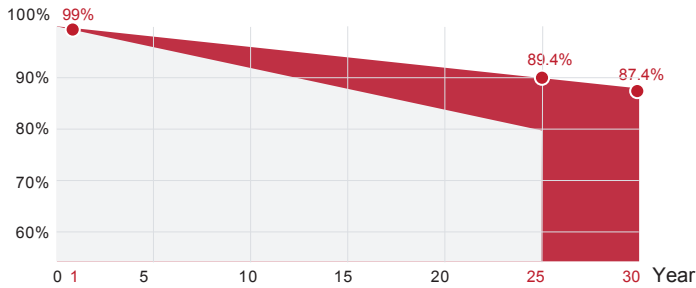
M10 N TYPE MONO

SPDGxxx-N108M10

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

15 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~+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
gry.



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 Temperature 25°C)

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	31.68
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				

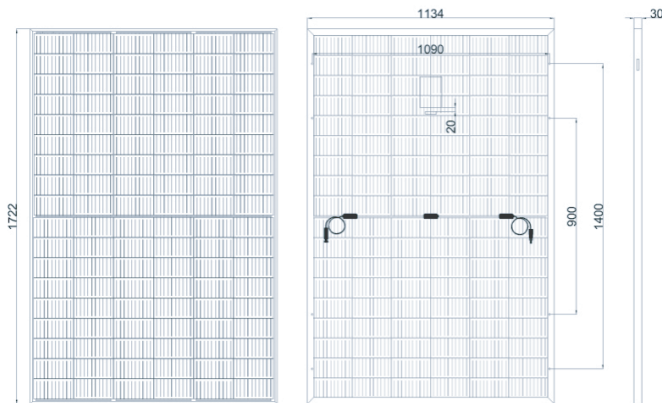
Electrical Characteristics with 15% Rear Side Power Gain (Take 420W as an example)

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

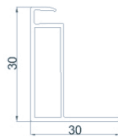
Electrical parameters at NMOT test conditions (Irradiance 800W/m², Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s)

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

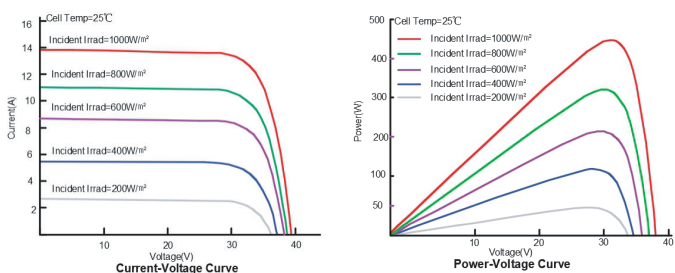
DIMENSIONS AND STRUCTURE



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	4mm ² , 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%/°C
Temp.Coeff.of Voc(TK Voc)	-0.25%/°C
Temp.Coeff.of Pmax(TK Pmax)	-0.30%/°C
Operating temperature	-40~+85°C
Normal operating cell temperature	42±2°C

Packing Configuration

Container	40'GP
Pieces per pallet	36
Pallets per container	26
Pieces per container	936

Tests, Certifications and Warranties

Standard tests	IEC 61215, IEC 61730, IEC 61701, IEC 62716, PPP 58042
System certs	ISO 9001, ISO14001, ISO45001
Certifications	TUV, CE, WEEE, INMETRO, 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