Tier1

BloombergNEF

YH SUNPRO POWER

CLEAN ENERGY COUNCIL PV CYCLE ISO 9001 ISO 14001 SA 8000 ISO 45001 OHSAS 18001

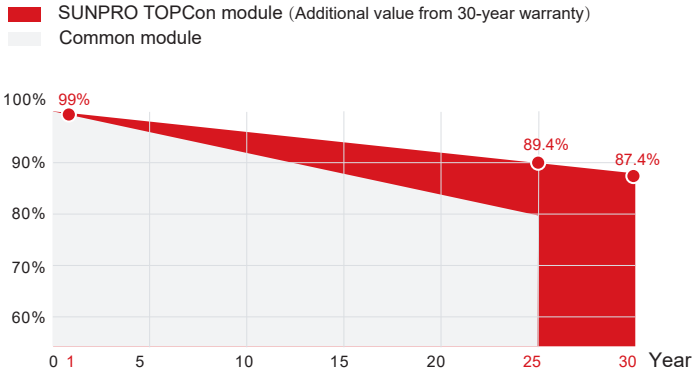
M10 TOPCON MONO

SPDGxxx-N108M10

410~440W

- Double glass
- Full black
- Black frame
- Sliver frame

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 22.53%. 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	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						

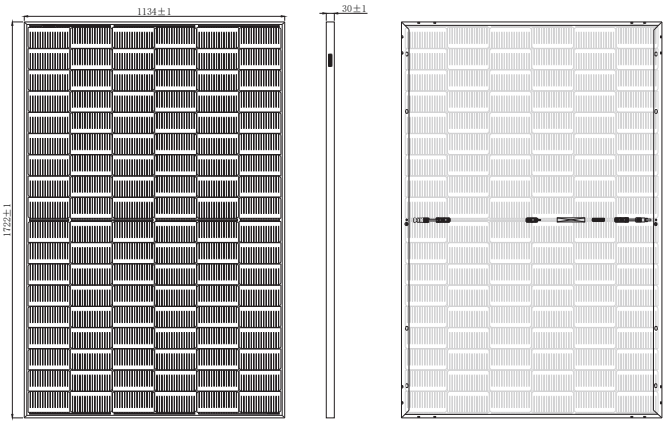
Electrical Characteristics with 15% Rear Side Power Gain

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	29.80	29.90
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	1722x1134x30mm
Weight	23.3kg
Glass	(F)2.0mm ultra clear embossed double layer colorless glass (B)2.0mm black mesh glazed tempered glass
Output cables	4mm², symmetrical lengths 1100mm
Connectors	MC4 compatible IP68
Cell type	Mono-Crystalline, N type Bifacial, 182x91mm
Number of cells	108cells (Half-Cell)

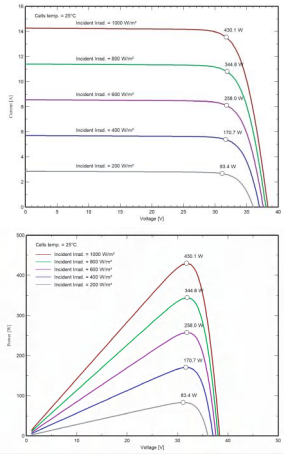
Temperature Characteristics

Temp.Coeff.of Isc(TK Isc)	0.046%/ ℃
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	72
Pallets per container	13
Pieces per container	936

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

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