

Tier1

BloombergNEF



ISO 9001
ISO 45001

ISO 14001
OHSAS 18001

SA 8000



186.8R TOPCON MONO

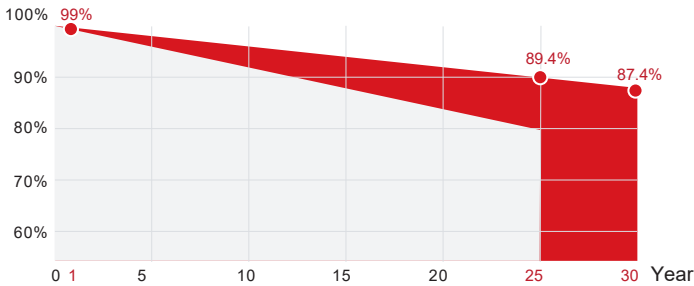
SPxxx-N156R10

620~645W

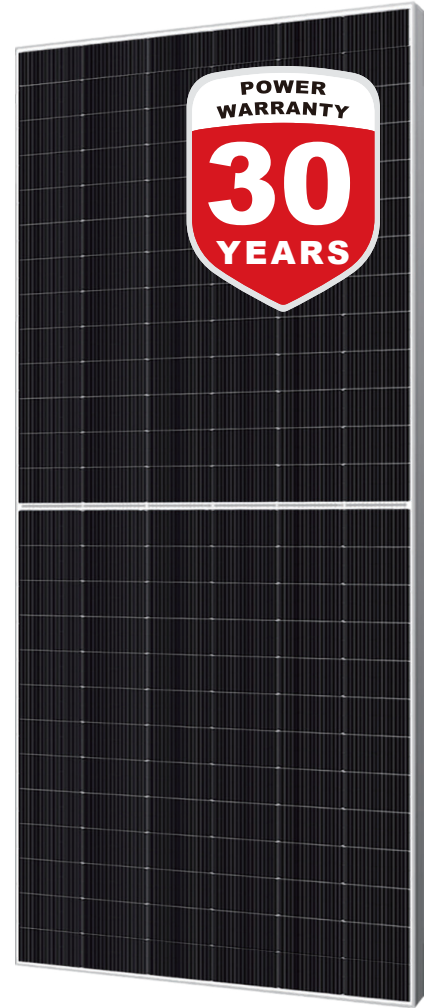
- Silver frame
- Black frame
- Full black

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

R&D AND PRODUCTION

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

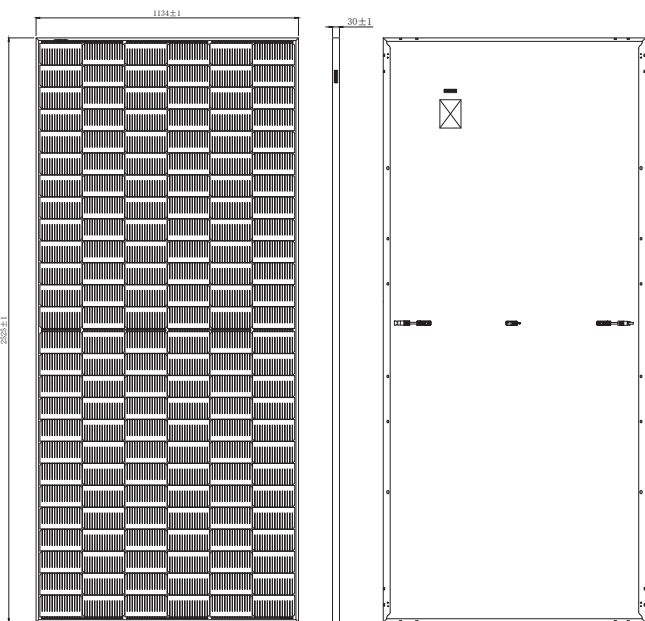
HIGH EFFICIENCY

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.

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

Typical type	620W	625W	630W	635W	640W	645W
Max power(Pmax)	620	625	630	635	640	645
Max power voltage(Vmp)	46.45	46.54	46.64	46.73	46.82	46.91
Max power current(Imp)	13.35	13.43	13.51	13.59	13.67	13.75
Open circuit voltage(Voc)	56.12	56.2	56.29	56.4	56.51	56.62
Short circuit current(Isc)	13.91	13.99	14.07	14.14	14.21	14.28
Module Efficiency(%)	21.65	21.83	22.00	22.18	22.35	22.53
Max system voltage	DC 1500V (TÜV)					
Maximum Series Fuse Rating	25A					

DIMENSIONS AND STRUCTURE



Electrical parameters at NMOT test conditions

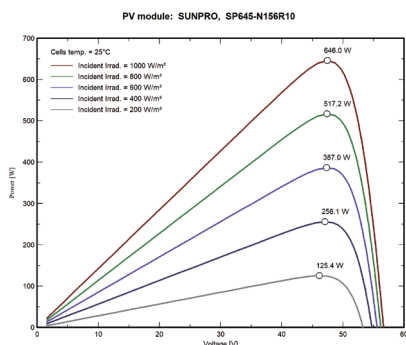
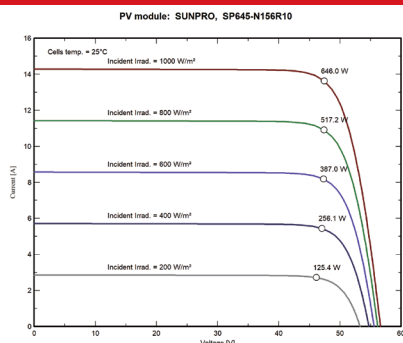
(Irradiance 800W/m², Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s)

Typical type	620W	625W	630W	635W	640W	645W
Max power(Pmax)	468	471.6	475.6	479.5	483.3	487.3
Max power voltage(Vmp)	44.1	44.2	44.3	44.4	44.5	44.6
Max power current(Imp)	10.61	10.68	10.74	10.79	10.86	10.92
Open circuit voltage(Voc)	53	53.1	53.2	53.3	53.4	53.5
Short circuit current(Isc)	11.21	11.28	11.34	11.40	11.45	11.51

Mechanical Data

Dimensions	2525x1134x30mm
Weight	30kg
Glass	3.2mm ultra clear embossed tempered coated glass
Output cables	4mm ² , symmetrical lengths 1400mm
Connectors	MC4 compatible IP68
Cell type	N type Mono-Crystalline, 182mmx93.4mm
Number of cells	156cells (Half-Cell)

I-V CHARACTERISTICS AT DIFFERENT IRRADIATION



Temperature Characteristics

Temp.Coeff. of Isc(TK Isc)	0.046%/°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	45±2°C

Packing Configuration

Container	40'HQ
Pieces per pallet	36
Pallets per container	16
Pieces per container	576

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	15 years product warranty and 30 years 87.4% of power