

Tier1

BloombergNEF



ISO 9001
ISO 45001

ISO 14001
OHSAS 18001



M10 HI-EFF TWIN MONO (HJT)

SP-182-108DSBXXX

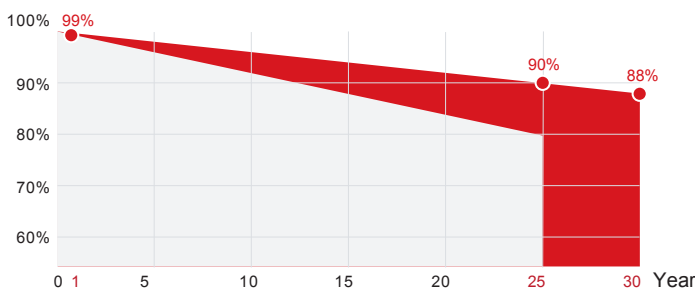
415~450W

- Double glass
- Full black



15 Yr quality guarantee | 30Yr power warranty

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



*SUNPRO Standard tiered 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

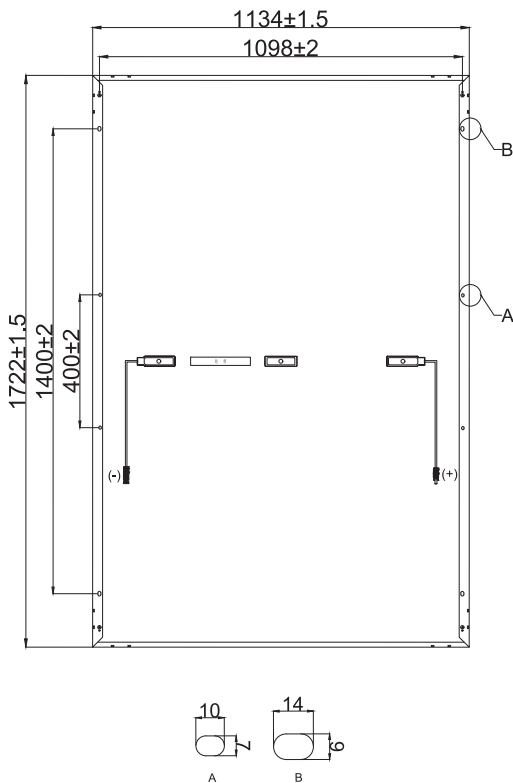
Efficiency can reach 23.04%. Excellent weak light performance and better performance in hot climate. Leading temperature coefficient for more production when the sun shines strongest, Or under the cloudy, haze condition

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

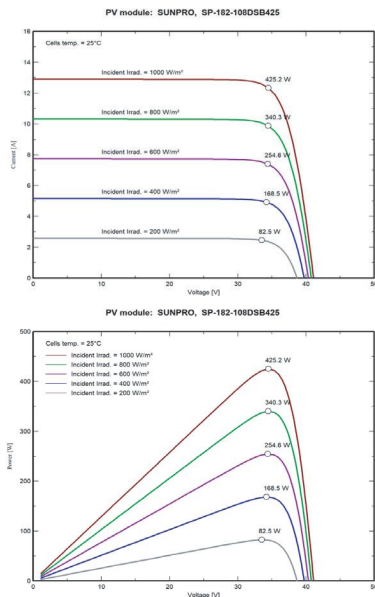
Typical type

	415W	420W	425W	430W	435W	440W	445W	450W
Max power(Pmax)	415	420	425	430	435	440	445	450
Max power voltage(Vmp)	33.8	34.07	34.33	34.6	34.86	35.12	35.38	35.63
Max power current(Imp)	12.28	12.33	12.38	12.43	12.48	12.53	12.58	12.63
Open circuit voltage(Voc)	40.54	40.82	41.1	41.37	41.64	41.91	42.18	42.44
Short circuit current(Isc)	12.8	12.85	12.9	12.95	13	13.05	13.1	13.15
Module Efficiency(%)	21.25	21.51	21.76	22.02	22.28	22.53	22.79	23.04
Max system voltage	DC 1500V(TÜV)							
Maximum Series Fuse Rating	25A							

DIMENSIONS AND STRUCTURE



I-V CHARACTERISTICS AT DIFFERENT IRRADIATION



Electrical Characteristics with 15% Rear Side Power Gain

Front power Pmax/W	415W	420W	425W	430W	435W	440W	445W	450W
Total power Pmax/W	477.25	483	488.75	494.5	500.25	506	511.75	517.5
Vmp/V(Total)	33.8	34.07	34.33	34.6	34.86	35.12	35.38	35.63
Imp/A(Total)	14.12	14.18	14.24	14.29	14.35	14.41	14.46	14.52
Voc/V(Total)	40.54	40.82	41.1	41.37	41.64	41.91	42.18	42.44
Isc/A(Total)	14.72	14.77	14.83	14.89	14.95	15.01	15.06	15.12

Mechanical Data

Dimensions	1722x1134x30mm
Weight	22 kg
Glass	(F) 1.6mm ultra clear embossed semi-tempered coated glass (B) 1.6mm semi-tempered glass
Output cables	4mm ² , 1100mm in length, length can be customized / UV Resistant
Connectors	MC4 compatible IP68
Cell type	Mono-Crystalline ,Bifacial HJT, 182x91mm
Number of cells	108cells (Half-Cell)

Temperature Characteristics

Temp.Coeff.of Isc(TK Isc)	0.04%/°C
Temp.Coeff.of Voc(TK Voc)	-0.24%/°C
Temp.Coeff.of Pmax(TK Pmax)	-0.26%/°C
Operating temperature	-40~+85°C
Normal operating cell temperature	44±2°C

Packing Configuration

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

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~+3%
Junction box	IP 68
Warranties	15 years product warranty and 30 years 88% of power