

Tier1

BloombergNEF



ISO14001



ISO9001



ISO45001



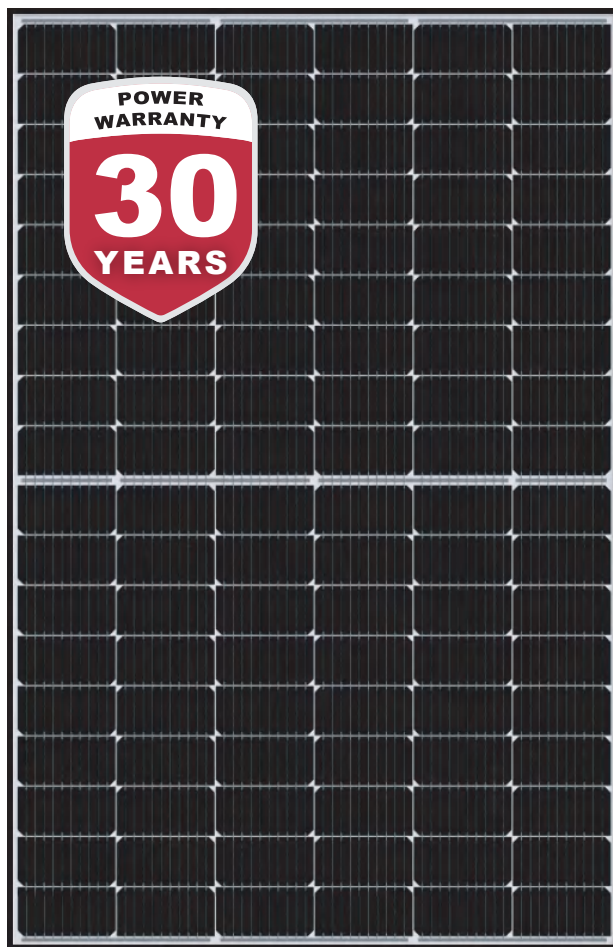
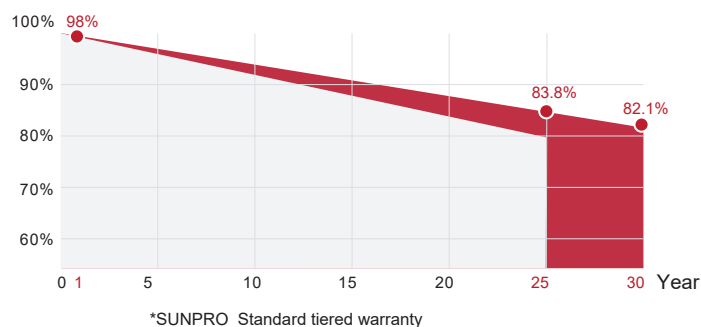
## M10 HIEFF TWIN MONO

### SPxxx-108M10

- Black frame (xxx=390~415W)
- Silver frame
- Full black
- Bifacial

#### 30 Yr quality guarantee | 30Yr power warranty

■ SUNPRO Standard (Additional value from 30-year warranty)  
 ■ Industry Standard



#### WARRANTY & GUARANTEE

30 years for all rooftop installations  
 Linear output power guarantee  
 25 years: 83.8% power output  
 30 years: 82.1% power output



#### WITHSTAND STRONG

Snow load 5400Pa  
 Wind load 2400Pa



#### R&D AND PRODUCTION

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



#### HIGH EFFICIENCY

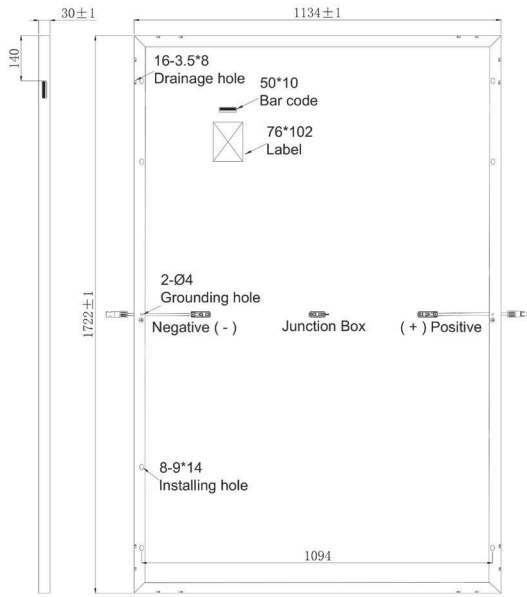
Efficiency can reach 21.23%. Excellent low light performance. Higher power output under the conditions of haze, overcast, etc.

Electrical parameters at standard test conditions (STC:AM=1.5, 1000W/m<sup>2</sup>, Cells Temperature 25°C)

**Typical type**

	390W	395W	400W	405W	410W	415W
Max power(Pmax)	390	395	400	405	410	415
Max power voltage(Vmp)	30.41	30.62	30.83	31.04	31.25	31.47
Max power current(Imp)	12.83	12.90	12.98	13.05	13.12	13.19
Open circuit voltage(Voc)	36.53	36.73	36.93	37.13	37.33	37.53
Short circuit current(Isc)	13.62	13.69	13.76	13.83	13.90	13.97
Module Efficiency(%)	21.88	20.20	20.46	20.72	20.97	21.23
Max system voltage	DC 1500V(TUV)					
Maximum Series Fuse Rating	25A					

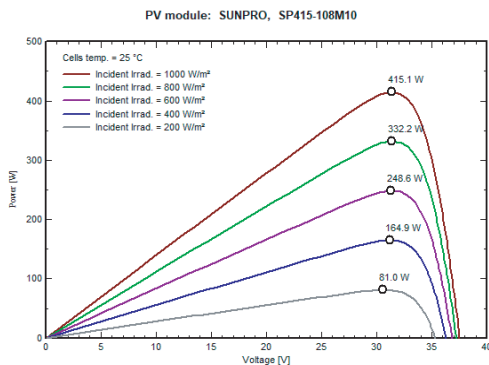
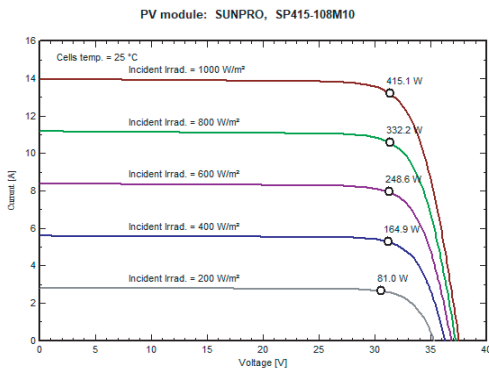
**DIMENSIONS AND STRUCTURE**



Side

Back

**I-V CHARACTERISTICS AT DIFFERENT IRRADIATION**



**Electrical parameters at NMOT test conditions**

(Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s)

Typical type	390W	395W	400W	405W	410W	415W
Max power(Pmax)	317.4	321.2	325.4	329.2	333.1	337.1
Max power voltage(Vmp)	30.90	31.10	31.30	31.50	31.70	31.90
Max power current(Imp)	10.28	10.34	10.41	10.47	10.52	10.58
Open circuit voltage(Voc)	36.70	36.90	37.10	37.30	37.50	37.70
Short circuit current(Isc)	10.88	10.93	10.99	11.04	11.10	11.16

**Mechanical Data**

Dimensions	1722x1134x30mm
Weight	21.5 kg
Glass	3.2mm tempered glass
Output cables	4mm <sup>2</sup> , symmetrical lengths 1100mm
Cell type	Mono-Crystalline PERC, 10BB, 182x91mm
Number of cells	108 cells ( Half-Cell )
Connectors	Taizhou Chuangda Electronic Co.,Ltd. Type: PV-TT02,1500V DC, 43A, -40 to 85° C, IP68(1m,1h)

**Temperature Characteristics**

Temp.Coeff.of Isc(TK Isc)	0.048%/°C
Temp.Coeff.of Voc(TK Voc)	-0.27%/°C
Temp.Coeff.of Pmax(TK Pmax)	-0.35%/°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	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	±3%
Junction box	IP 68
Warranties	30 years product warranty and 30 years 82.1% of power
Fire class rating	Class C