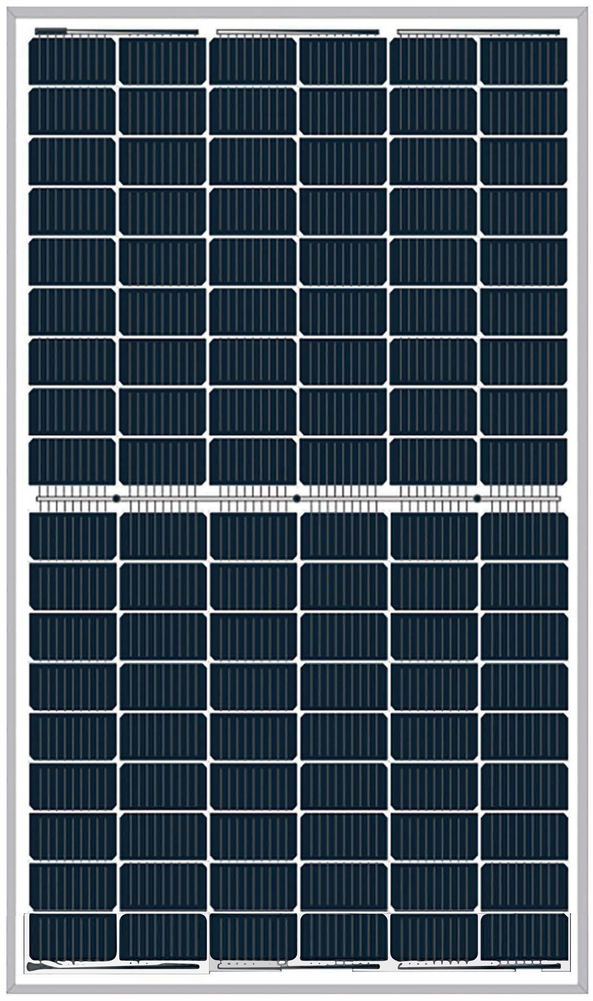
Spar Solar

SPxxx-108M10

182x91mm half-cut 9bb/10bb/11bb Monocrystalline Module

390-415W



415W
Max Power Output

21.20%
Max Module Efficiency

0~+5w
Power Output Guarantee

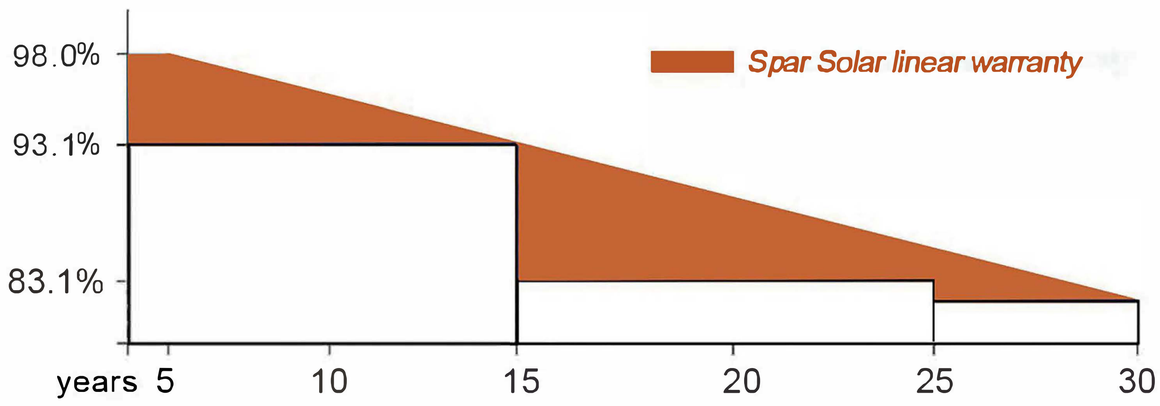
High conversion efficiency due to top quanlity wafers and advanced cell technology,Ideal choice for large scale ground installation

Through sand, salt fog, ammonia and other weather resistance test,adapt to harsh outdoor environment

Selected encapsulating material and stringent production process control ensure the product is highly PID resistan and snail trails free

Enhanced frame design,moreexcellentcomponent load capacity

Highly transparent self cleaning glass brings additional yield and easymaintenance



15 Years Limited Product Warranty / 30 Years Linear Power Warranty

- 15-year limited product warranty(materials and labour)
- 30-year limited power warranty
  10-year at 93.1% power output
  25-year at 83.1% power output
  30-year at 80.0% power output

SPxxx-108M10 390-415w

（STC*） Electrical Specification

Max Power	Pmax（W）	390	395	400	405	410	415
Max Power Voltage	Vmp（V）	30.76	30.98	31.18	31.38	31.59	31.80
Max Power Current	Imp（A）	12.69	12.76	12.83	12.91	12.98	13.05
Open Circuit Voltage	Voc（V）	36.62	36.84	37.04	37.24	37.45	37.66
Short Circuit Current	Isc（A）	13.59	13.66	13.73	13.81	13.88	13.88
Module Efficiency	（%）	19.93	20.18	20.44	20.69	20.95	21.20
Dimensions of Module L*W*H	(mm)	1726x1134x30 or 1726x1134x35					
Weight	(kg)	22.1					
Solar Cell Type	(mm)	Mono 182×91,108 cells					
Packaging	(pcs)	31/37 pallet,962/806/40hq					
Power Output Tolerance	（W）	0 ～+5					
Operational Temperature		-40~+85°C					
Maximum System Voltage		1500V DC					
Max Series Fuse Rating		25A					

* Irradiance 1000W/m², Module Temperature 25°C, Air Mass 1.5

(NOCT*） Electrical Specification

Max Power	Pmax（W）	294	298	302	306	309	312
Max Power Voltage	Vmp（V）	28.40	28.60	28.80	29.00	29.20	29.40
Max Power Current	Imp（A）	10.35	10.42	10.49	10.55	10.58	10.61
Open Circuit Voltage	Voc（V）	34.40	34.60	34.80	35.00	35.20	35.40
Short Circuit Current	Isc（A）	10.70	10.78	10.85	10.91	10.98	11.05

* Irradiance 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s

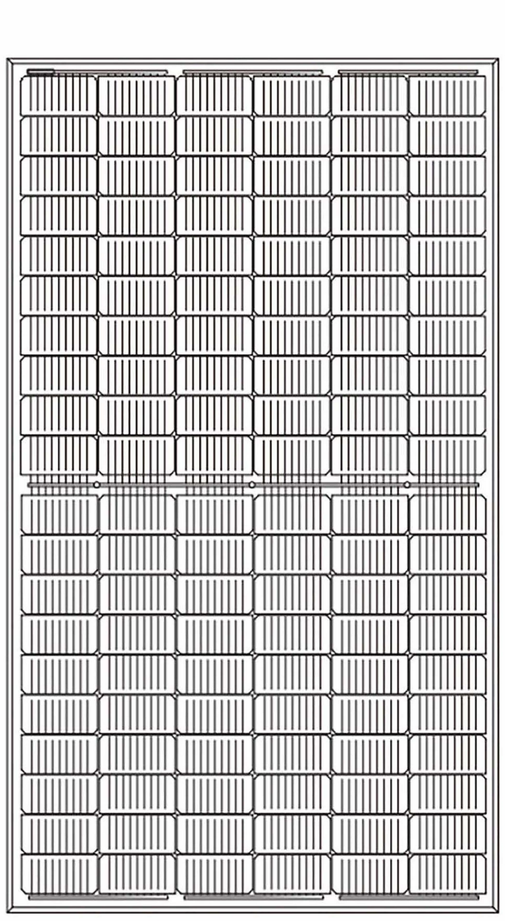
Mechanical Data

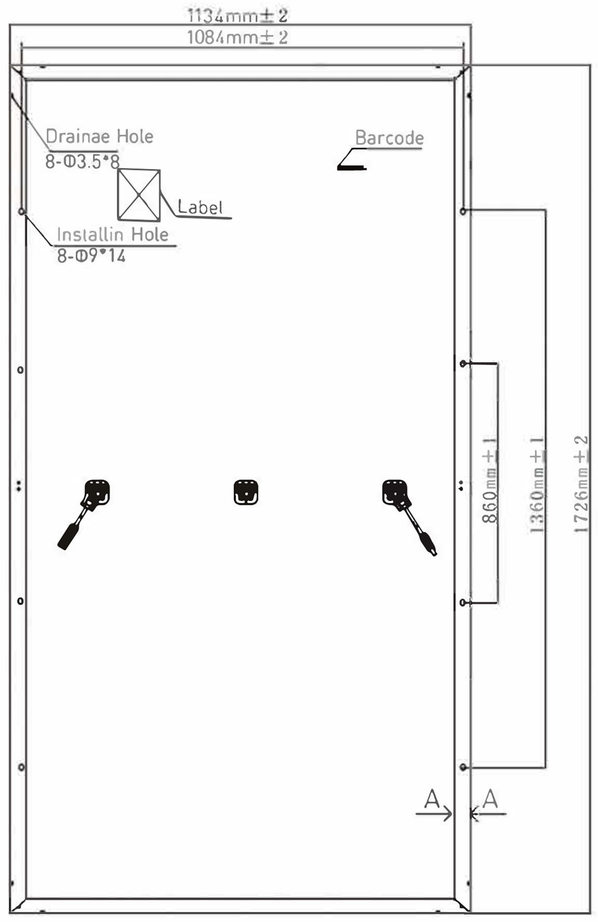
Glass	3.2mm High transparency solar glass
Backsheet	White or Black
Frame	Silver /black anodized alu alloy
J-Box	IP68 Rated
Cable	4.0mm² (0.006 inches²) 300mm(1)
Number of diodes	3
Wind/ Snow Load	2400Pa/5400Pa*
Connector	MC4 Compatible

* For more details please check the installation manual of SF

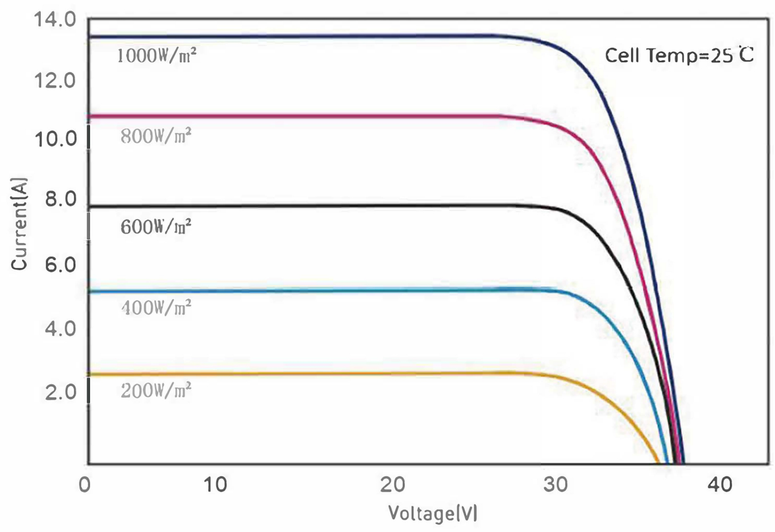
Temperature Ratings

(NOCT) Nominal Operating Cell Temperature	45±2°C
(Isc) Temperature Coefficient of Isc	+ 0.06%/°C
(Voc) Temperature Coefficient of Voc	- 0.30%/°C
(Pmax) Temperature Coefficient of Pmax	- 0.37%/°C





I-V Curve at Different Temperature (405W)



I-V/P-V Curve at Different Irradiation (405W)