



SUNNIVA - M18/108

400-415W

182±1.5x91±1.5mm
Cells 108

Monocrystalline

PERC Half-Cell Module

Max Power Out: 415W
Max Efficiency: 21.25%
Power Tolerance: 0~+5W



SMBB Technology

Better light trapping and current collection to improve module power output and reliability



PID Resistance

Excellent Anti-PID performance guarantee via optimized mass-production process and materials control.



Durability Against Extreme Environmental Conditions

High salt mist and ammonia resistance.



Reduced Hot Spot Loss

Optimized electrical design and lower operating current for reduced hot spot loss and better temperature coefficient.



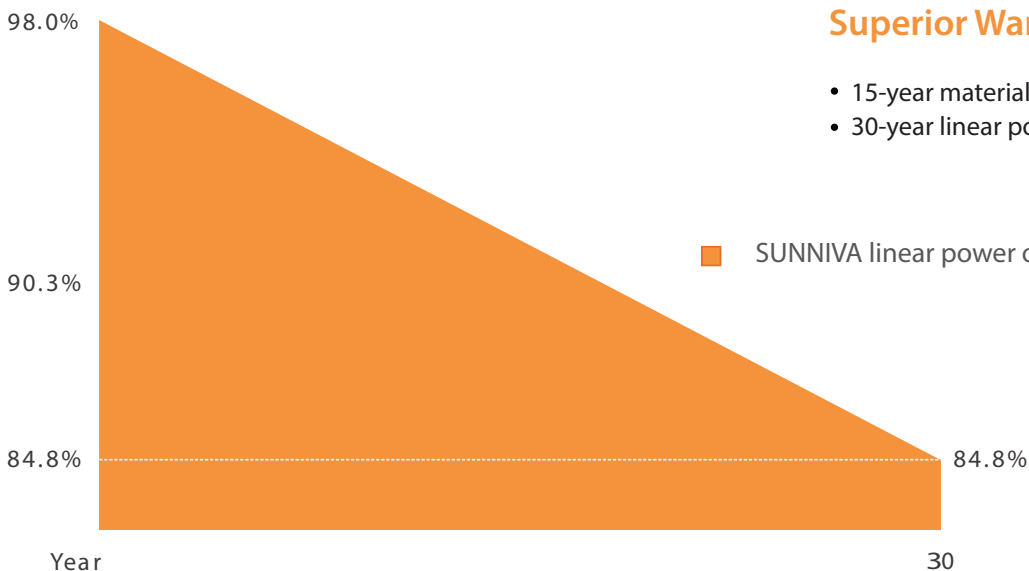
Enhanced Mechanical Load

Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).



High Energy Generation, Low LCOE

Low Pmax temp coefficient increases energy production.

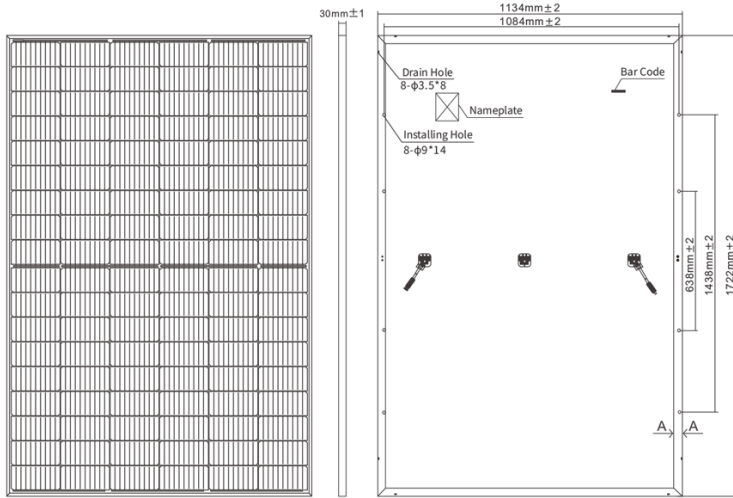


Superior Warranty

- 15-year material & technology warranty
- 30-year linear power output warranty

■ SUNNIVA linear power output guarantee

Engineering Drawings



Front

Side

Back

Structural Parameter

Dimensions of Module	1722x1134x30mm
Weight	21.3kg
J-Box	IP68 Rated
Glass	High Transparency Solar Glass 3.2mm
Frame	Anodized aluminium alloy & custom color accepted
Cable	4mm ² , 300mm
Wind/ Snow Load	2400Pa/5400Pa
Connector	MC4 compatible
Cell Orientation	108 (6x18)

Electrical Specification

(STC: Irradiance 1000W/m², Cell temperature 25°C, AM1.5G — NOCT: Irradiance 800W/m², Ambient temperature 20°C, Wind speed 1m/s)

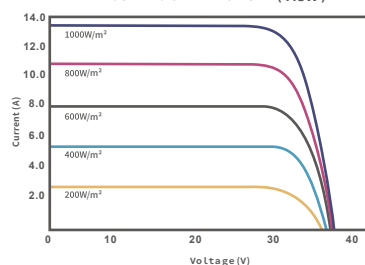
Module Type	SUNNIVA M18/108400		SUNNIVA M18/108405		SUNNIVA M18/108410		SUNNIVA M18/108415	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax) [W]	400	296.8	405	300.51	410	304.22	415	307.93
Maximum Power Voltage (Vmp) [V]	31.01	28.84	31.18	29.00	31.35	29.16	31.52	29.31
Maximum Power Current (Imp) [A]	12.90	10.29	12.99	10.36	13.08	10.43	13.17	10.50
Open Circuit Voltage (Voc) [V]	37.07	34.48	37.16	34.56	37.25	34.64	37.34	34.73
Short Circuit Current (Isc) [A]	13.75	10.97	13.86	11.06	13.97	11.14	14.97	11.23
Module Efficiency [%]	20.48		20.74		21.00		21.25	
Cell Type [mm]	Mono $182 \pm 1.5 \times 91 \pm 1.5$, 108 Cells							
Operational Temperature [°C]	-40~+85°C							
Maximum System Voltage	1500V DC							
Max Series Fuse Rating	25A							

Temperature Ratings

Nominal Operating Cell Temperature	$45 \pm 2^\circ\text{C}$
Temperature Coefficient of Isc	+ 0.06 %/°C
Temperature Coefficient of Voc	- 0.30 %/°C
Temperature Coefficient of Pmax	- 0.39 %/°C

Curve Diagram

I-V CURVES OF PV MODULE (415W)



P-V CURVES OF PV MODULE (415W)

