

12BB



100% TEST

Double EL tests ensures high quality standard



Reduced hot spot risk with optimized electrical design and lower operating current



Monocrystalline PERC
Half cut cells



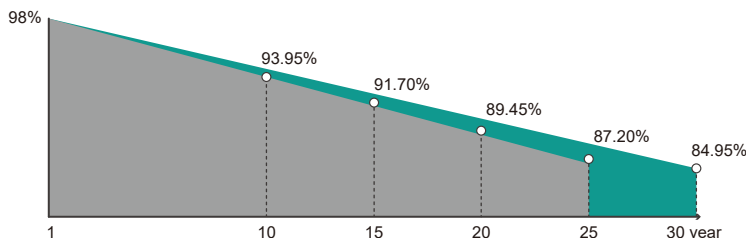
Positive Power tolerance
0~+5W extra output power



Anti-PID
Low LID Performance

650~670W

210mm 132Cells PV Solar Module



Quality Guarantee

12-Year
material & technology warranty
30-Year
linear power output warranty

- SUNWE solar linear power output guarantee
- Standard linear power output guarantee

Electrical Characteristics (STC/NOCT)

Module Type	SW650M12		SW655M12		SW660M12		SW665M12		SW670M12	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power- Pmax(W)	650W	492W	655W	496W	660W	500W	665W	504W	670W	508W
Open Circuit Voltage - Voc(V)	45.29V	42.59V	45.49V	42.79V	45.69V	42.99V	45.89V	43.19V	46.09V	43.39V
Short- Circuit Current - Isc(A)	18.43A	14.84A	18.49A	14.88A	18.52A	14.93A	18.58A	14.98A	18.63A	15.03A
Voltage at Pmax -Vmp(V)	37.39V	34.89V	37.59V	35.09V	37.79V	35.29V	37.99V	35.49V	38.19V	35.69V
Current at Pmax - Imp(A)	17.39A	14.11A	17.43A	14.14A	17.47A	14.17A	17.51A	14.21A	17.55A	14.24A
Module Efficiency - η m(%)	20.92%		21.09 %		21.25%		21.41%		21.57%	
Power Tolerance(W)	(0, +5W)									
Maximum System Voltage(V)	1500Vdc (IEC / UL)									
Maximum Series Fuse Rating (A)	30A									

STC : Irradiance 1000W/m², Cell Temperature 25 C , Air Mass 1.5

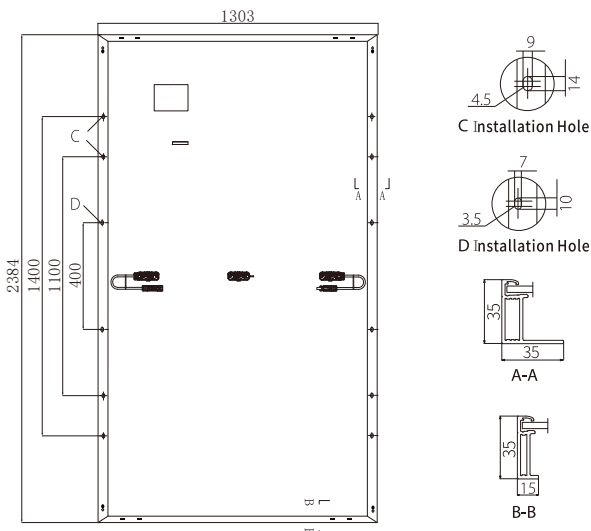
NOCT : Irradiance 800W/m², Ambient Temperature 20 C , Air Mass 1.5, Wind Speed 1m/s

Mechanical Specifications

External Dimensions	2384×1303×35mm
Weight	34.0kg
Solar Cells	Mono crystalline 210mm (2x66pcs)
Front Glass	AR Coated 3.2 mm tempered glass
Frame	Anodized aluminum alloy
Junction Box	IP68 with 3 bypass diodes
Output Cables	4.0mm ² , 30cm (+), 40cm (-), length can be customized
Connector	MC4 Compatible
Mechanical Load	Front Side Max. 5400Pa, Rear Side Max. 2400Pa

Temperature Characteristics

Pmax Temperature Coefficient	-0.340%/C
Voc Temperature Coefficient	-0.240%/C
Isc Temperature Coefficient	+0.040%/C
Operating Temperature	-40 ~ +85 C
Nominal Operating Cell Temperature(NOCT)	43±2 C



Packing Configuration

Container	20'GP	40'HQ
Pieces per Pallet	31	31
Pallets per Container	5	17
Pieces per Container	155	527

Current-Voltage & Power-Voltage Curves (SW660M12)

