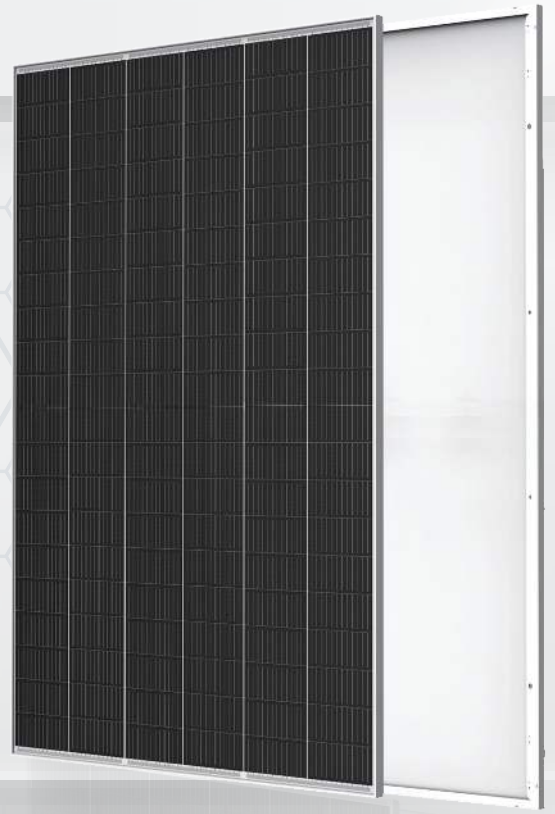




# SPPM-MG12-SS 580W – 600W

MONO-FACIAL MODULE



Worldwide Standard



Thai Industrial  
standard :



Key Features



**Smart Technology G12**  
Monocrystalline silicon wafer



**SMBB Technology (12BB)**  
Better light trapping with multi busbar decreasing resistance and power loss



**PID Resistance excellence**  
Anti-performance deterioration induced by negative potential to ground



**Anti – reflective and anti- soiling**  
Reducing reflection loss and dust adhesion and improving power conversion efficiency (PCE)

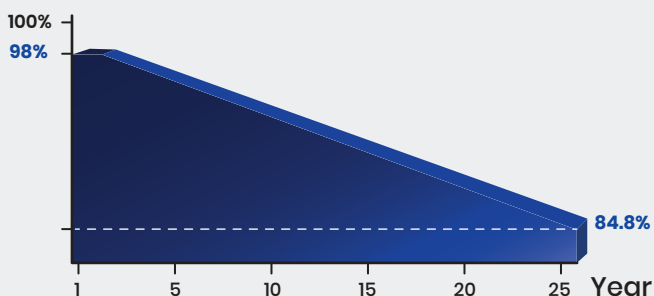


**1500 VDC IES Compatibility**  
Safe measurement from series circuit connection up to 1500 voltage



**PERC Technology**  
Passivated emitter and rear contact

Power Performance



**Linear Performance Warranty**

**15** Year Product Warranty

**25** Year Linear Power Warranty

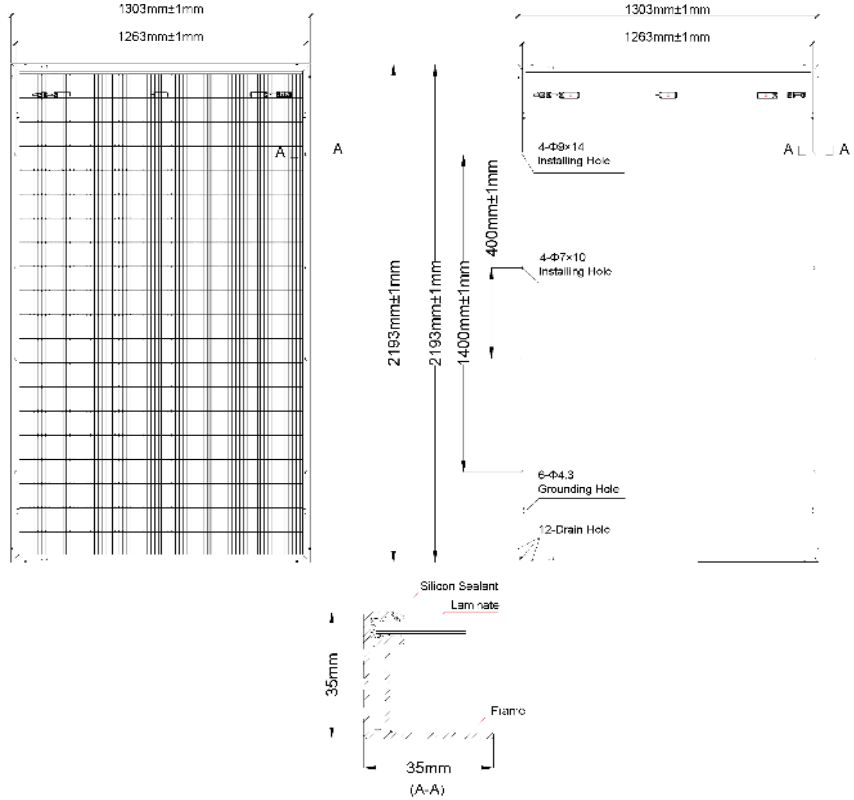
**0.55%** Annual Degradation Over 25 years

## MECHANICAL PARAMETERS

Cell (mm)	MONO-PERC 210 x 210(12 BB)
Weight (Kg)	33
Glass Thickness (mm)	3.2 + Transparent, Low Iron, Tempered Glass
Dimensions (L x W x H)(mm)	2193 x 1303 x 35
Cable Cross Section Size (mm <sup>2</sup> )	4.0
No. of Cells and Connections	120 (6 x 20)
Junction Box	IP68,3 Schottky diode
Connector	MC4 Compatible
Packaging Configuration	Anodized Aluminium Alloy

## WORKING CONDITIONS

Maximum System Voltage	DC1500V (IEC)
Operating Temperature	-40 °C +85 °C
Maximum Series Fuse	30A
Maximum Static Load, Front(e.g, snow and wind)	5400Pa
Maximum Static Load, Back(e.g, wind)	2400Pa
NOCT	45+2 °C
Application Class	A
Fire Performance Class	Class C / Type 1



## ELECTRICAL PARAMETERS

TYPE	SPPM-MG12-SS 580W	SPPM-MG12-SS 585W	SPPM-MG12-SS 590W	SPPM-MG12-SS 595W	SPPM-MG12-SS 600W
Rated Maximum Power at STC (W)	580	585	590	595	600
Open Circuit Voltage (Voc/V)	84.26	84.42	84.64	84.84	85.00
Maximum Power Voltage (Vmp/V)	69.50	69.76	70.00	70.22	70.44
Short Circuit Current (Isc/A)	8.85	8.89	8.93	8.97	9.02
Maximum Power Current (Imp/A)	8.35	8.39	8.44	8.48	8.52
Module efficiency (%)	20.30%	20.47%	20.65%	20.82%	21.00%
Power tolerance	-0 to +5 Watt				
Temperature Coefficient of Isc	0.07%/ °C				
Temperature Coefficient of Voc	-0.26%/ °C				
Temperature Coefficient of Pmax	-0.35%/ °C				
STC	Irradiance 1000W/m <sup>2</sup> , Cell Temperature 25°C, Air Mass 1.5				

## NOCT

TYPE	SPPM-MG12-SS 580W	SPPM-MG12-SS 585W	SPPM-MG12-SS 590W	SPPM-MG12-SS 595W	SPPM-MG12-SS 600W
Maximum Power (Pmax) (W)	438.66	440.65	446.41	450.07	454.52
Open Circuit Voltage (Voc/V)	77.22	77.40	77.58	77.76	77.94
Maximum Power Voltage (Vmp/V)	64.48	64.74	65.01	65.18	65.44
Short Circuit Current (Isc/A)	7.15	7.17	7.19	7.21	7.24
Maximum Power Current (Imp/A)	6.80	6.84	6.87	6.91	6.95
Condition	Under Normal Operating Cell Temperature, Irradiance of 800W/m <sup>2</sup> , Spectrum AM1.5, ambient temperature 20°C, wind speed 1 m/s				

## PACKAGE CONFIGURATION

- Modules per box: 31 pieces
- Modules per 40' container: 496 pieces

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