-HV

SRP-XXX-BMB: Maximum System Voltage1000 VDC
SRP-XXX-BMB-HV: Maximum System Voltage1500 VDC

Electrical Characteristics

Module Type	SRP-305-BMB SRP-305-BMB-HV	SRP-310-BMB SRP-310-BMB-HV	SRP-315-BMB SRP-315-BMB-HV	SRP-320-BMB SRP-320-BMB-HV
	STC	STC	STC	STC
Maximum Power at STC (Pmp)	305	310	315	320
Open Circuit Voltage (Voc)	39.5	39.8	40.1	40.4
Short Circuit Current (Isc)	9.69	9.77	9.85	9.93
Maximum Power Voltage (Vmp)	33.2	33.5	33.7	34.0
Maximum Power Current (Imp)	9.19	9.26	9.35	9.42
Module Efficiency at STC(ηm)	18.37	18.67	18.97	19.27
Power Tolerance	(0,+4.99)			
Maximum System Voltage	1000 VDC / 1500 VDC			
Maximum Series Fuse Rating	20A			

STC: Irradiance 1000 W/m² module temperature 25°C AM=1.5;

Temperature Characteristics

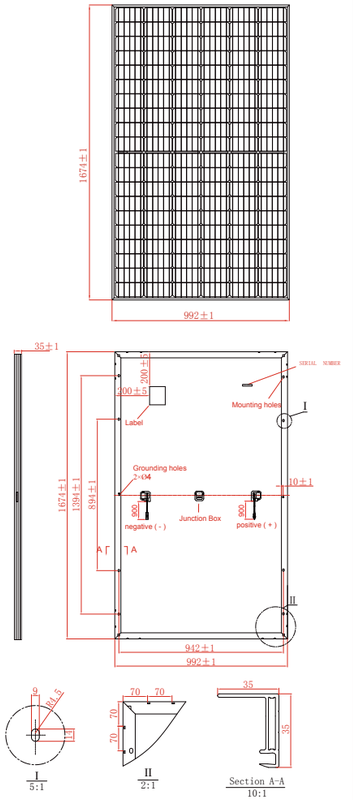
Pmax Temperature Coefficient	-0.38 %/°C
Voc Temperature Coefficient	-0.28 %/°C
Isc Temperature Coefficient	+0.05 %/°C
Operating Temperature	-40～+85 °C
Nominal Operating Cell Temperature (NOCT)	45±2 °C

Mechanical Specifications

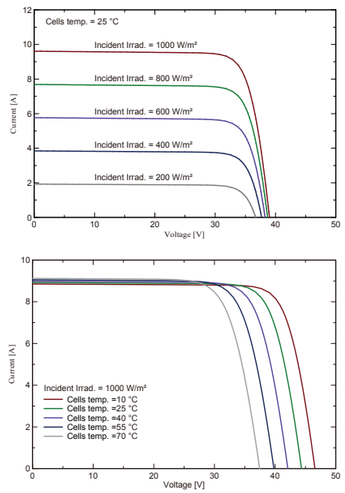
External Dimensions	1674x 992x35 mm
Weight	18.5 kg
Solar Cells	Mono crystalline
Front Glass	3.2 mm AR coating tempered glass, low iron
Frame	Anodized aluminium alloy
Junction Box	IP67
Output Cables	4.0 mm²,cable length: 900 mm
Connector	MC4 Compatible
Mechanical Load	5400 Pa

Packing Configuration

	1674x 992x 35 mm	
Container	20'GP	40'GP
Pieces per Pallet	30	30
Pallets per Container	12	26
Pieces per Container	360	780



I-V Curve (SRP-305-BMB(-HV))



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SERAPHIM®

BIADE™
Cuts Night, Breaks Dawn.

305W-320W

Blade™ – A Module re-Modeled

Seraphim's Blade™ Series solar module boasts two identical parts, which are composed of cells that are half the size of ordinary solar cells. By cutting cells into halves, these smaller currents will help reduce "Cell To Module" loss, which means higher output.

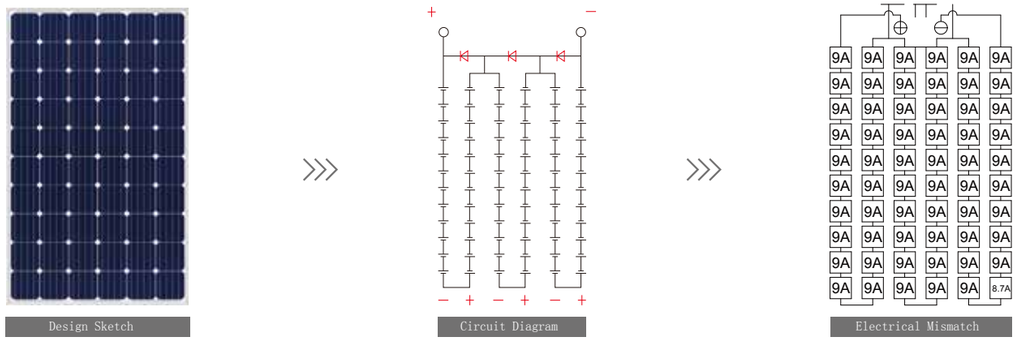
In the meantime, the overall space between cells are doubled, and more light will be transferred into power through multiple reflections. Compared to mainstream standard modules, the Blade™ series module has lower current and series resistance which helps minimize mismatch loss, internal power loss, and shadow effect, etc. Once one cell has EL defect or appearance defect, such as black edge or V sharp. After cutting, one intact half can be reused.

More Output | ***Higher Efficiency*** | ***Higher ROI***

Less Mismatch loss

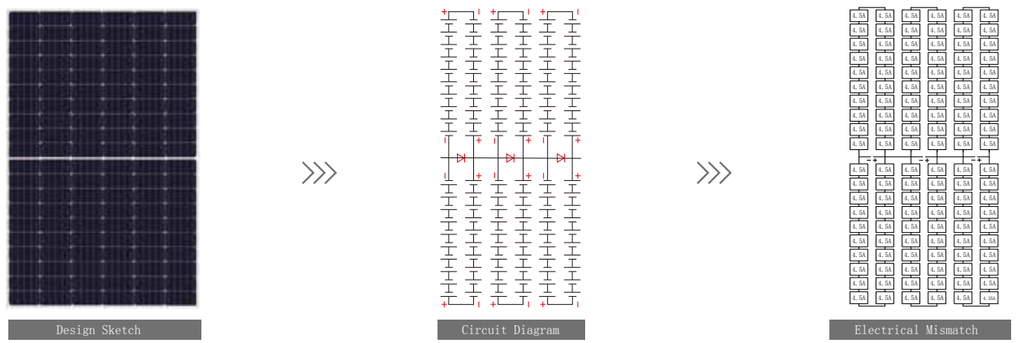
Instead of 6 internal strings of cells, the Blade series module has 2 x 6 shorter ones. This design effectively deals with the mismatch happened between cells caused by shadow, out of sync performance degradation, ect.

Standard Module / With 6 internal strings of cells



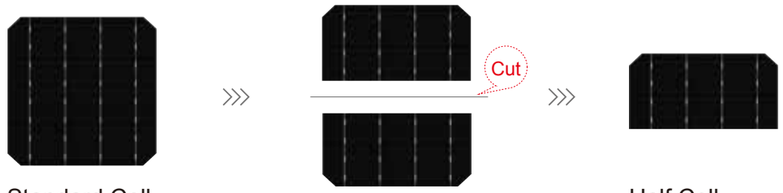
Module current output is 8.7A, current mismatch in series is **0.3A**.

Blade™ / With 2 x 6 internal strings of cells



Module current output is 4.5+4.35=8.75A, current mismatch in series is **0.15A**.

Less Internal Power Loss



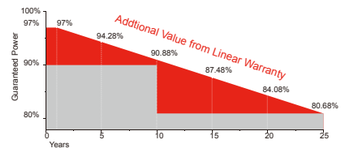
The ribbon length of half-cell is shorter than normal cell. Calculated by Joule's law and Ohm' law, the power loss reduction is nearly 6%.

Product Certificates

Insurance

PICC

Warranty



10 YEARS Guarantee on product material and workmanship

25 YEARS linear power output warranty

Higher Yield Due to Better Shading Response

Blade™ comprises two separated and identical solar cell arrays, which means the ordinary strings of cells are cut into halves, and these shorter strings compose arrays which has separated current paths. When a module is shaded, only one side shaded array's current will be impacted, while the other array will still be functionally producing power. Under this circumstance, when a module is shaded, the affected working areas of Blade™ will be 50% less.

By cutting solar cell into halves, the internal power loss will be lower and hot spot effect will also be reduced.

Standard Module ***Blade™ Module***