

Module Type	SRP-385-BMA SRP-385-BMA-HV	SRP-390-BMA SRP-390-BMA-HV	SRP-395-BMA SRP-395-BMA-HV	SRP-400-BMA SRP-400-BMA-HV
	STC	STC	STC	STC
Maximum Power at STC (Pmp)	385	390	395	400
Open Circuit Voltage (Voc)	48.5	48.7	48.9	49.1
Short Circuit Current (Isc)	9.87	9.95	10.03	10.10
Maximum Power Voltage (Vmp)	41.0	41.2	41.4	41.6
Maximum Power Current (Imp)	9.39	9.47	9.55	9.62
Module Efficiency at STC(η_m)	19.07	19.32	19.56	19.81
Power Tolerance	(0,+4.99)			
Maximum System Voltage	1000 VDC / 1500 VDC			
Maximum Series Fuse Rating	20A			

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

External Dimensions	2015 x 1002 x 40 mm
Weight	23.0kg
Solar Cells	PERC Mono crystalline 158.75 x 79.375 mm(144pcs)
Front Glass	3.2 mm AR coating tempered glass, low iron
Frame	Anodized aluminium alloy
Junction Box	IP68, 3 diodes
Output Cable	4.0 mm², Portrait:255mm(+)/355mm(-);Landscape:1200mm
Connector	MC4 Compatible
Mechanical Load	5400 Pa

	2015 x 1002 x 40 mm		
Container	20'GP	40'GP	40'HQ
Pieces per Pallet	27	27	27+2*
Pallets per Container	10	22	22
Pieces per Container	270	594	638

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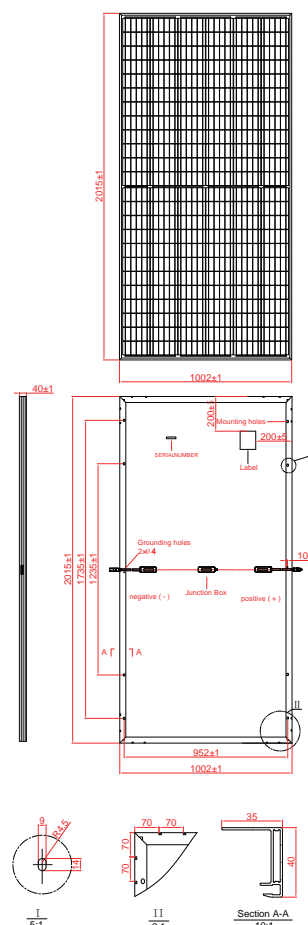
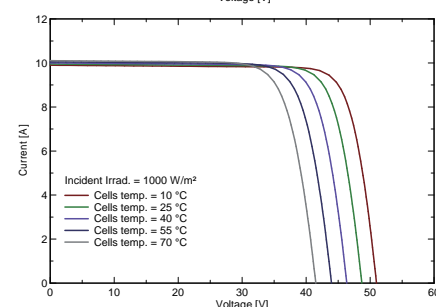


Figure 1 is a line graph showing the current-voltage (I-V) characteristics of a solar cell at a constant temperature of 25 °C. The y-axis represents Current [A] ranging from 0 to 12, and the x-axis represents Voltage [V] ranging from 0 to 60. Five curves are plotted, each corresponding to a different incident irradiance: 1000 W/m² (red), 800 W/m² (green), 600 W/m² (blue), 400 W/m² (purple), and 200 W/m² (black). The curves show that the short-circuit current (at 0 V) decreases linearly with decreasing irradiance, while the open-circuit voltage (at 0 A) increases slightly with increasing irradiance. The curves for higher irradiances show a more pronounced 'knee' region before reaching zero current.



BLADE™
Cuts Night, Breaks Dawn.

385W-400W

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

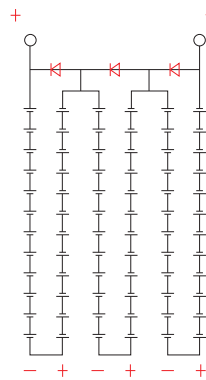
Instead of 6 internal strings of cells, the Blade series module has 2 x 6 shorter ones. This design effectively deals with the mismatch happened between cells caused by shadow, out of sync performance degradation, ect.

Standard Module / With 6 internal strings of cells



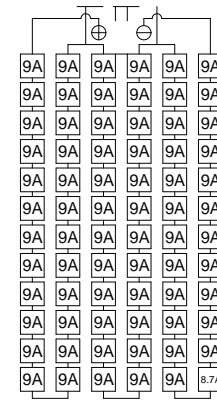
Design Sketch

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Circuit Diagram

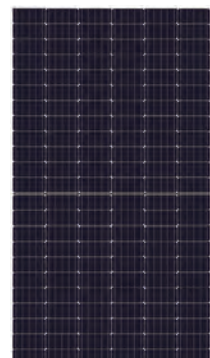
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Electrical Mismatch

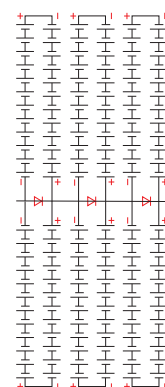
Module current output is 8.7A, current mismatch in series is **0.3A**.

Blade™ / With 2 x 6 internal strings of cells



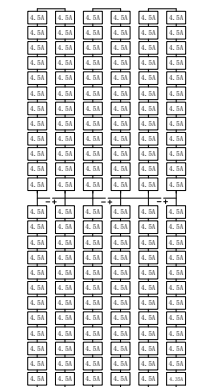
Design Sketch

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Circuit Diagram

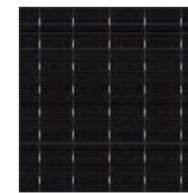
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Electrical Mismatch

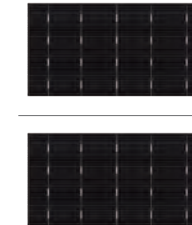
Module current output is 4.5+4.35=8.85A, current mismatch in series is **0.15A**.

Less Internal Power Loss



Standard Cell

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Cut

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Half Cell

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%.

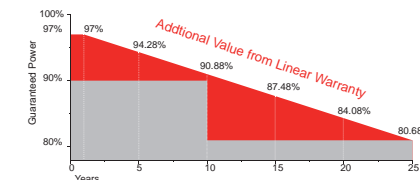
Product Certificates



Insurance



Warranty



15 YEARS Guarantee on product material and workmanship

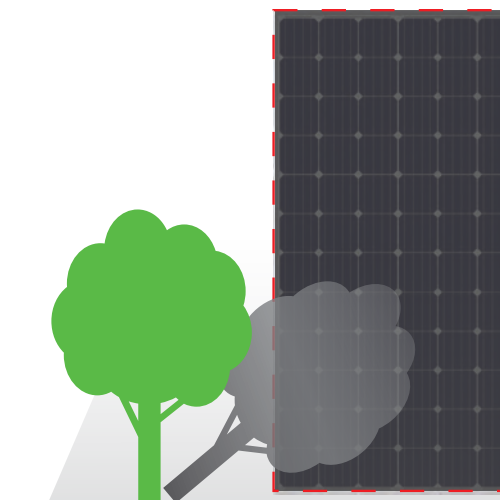
25 YEARS linear power output warranty

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

