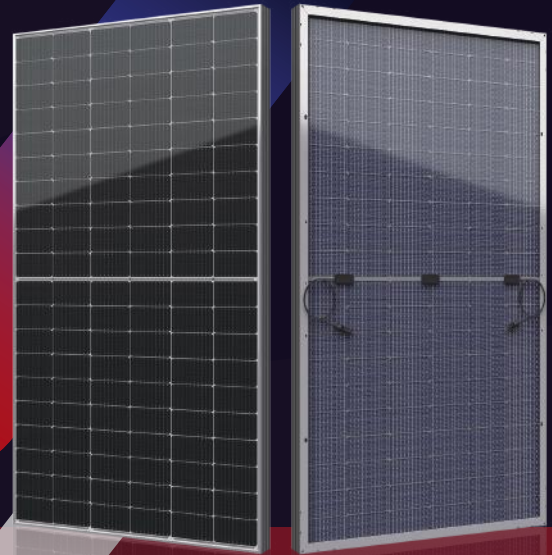


# SIV SERIES

Small Changes, Big Accomplishments







## 435-450W



### ● SIV SERIES

Seraphim redefined the high-efficiency module series by integrating 182mm silicon wafers with multi-busbar and half-cut cell technologies. Seraphim panel combined creative technology effectively and extremely improved the module efficiency and power output.

### ● KEY FEATURES

-  Less mismatch to get more power
-  Less power loss by minimizing the shading impact
-  Competitive low light performance
-  3 times EL test to ensure best quality
-  Ideal choice for utility and commercial scale projects by reduced BoS and improved ROI
-  Outstanding reliability proven by PVEL for stringent environment condition:
  - Sand, acid, salt and hail stones
  - 2400 Pa wind load and 5400 Pa snow load
  - Anti-PID

### ● QUALITY SYSTEM

ISO9001 / ISO14001 / ISO45001

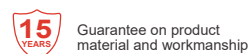
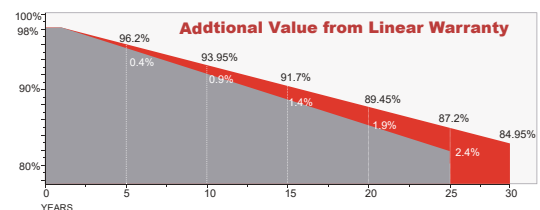
### ● PRODUCT CERTIFICATION



### ● INSURANCE



### ● WARRANTY



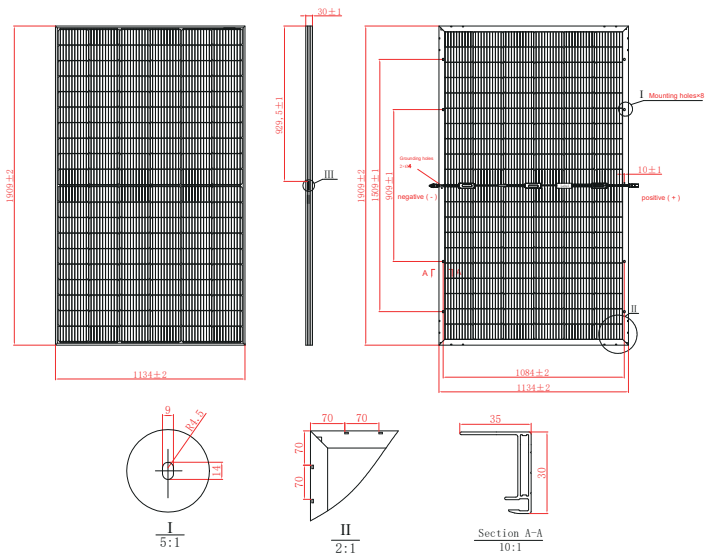
### Mechanical Specifications

External Dimension	1909 x 1134 x 30 mm
Weight	27.3 kg
Solar Cells	PERC Mono crystalline(120 pcs)
Front / Back Glass	2.0mm AR coating semi-tempered glass, low iron
Frame	Anodized aluminium alloy
Junction Box	IP68, 3 diodes
Output Cables	4.0mm <sup>2</sup> , 250mm(+)/350mm(-) or Customized Length

### Packing Configuration

Container	20'GP	40'HQ
Pieces per Pallet	32	32
Pallets per Container	5	24
Pieces per Container	160	768

### Technical drawing



### Electrical Characteristics

Module Type	SRP-435-BMB-BG			SRP-440-BMB-BG			SRP-445-BMB-BG			SRP-450-BMB-BG		
	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC
Maximum Power -P <sub>mp</sub> (W)	435	326	305	440	329	308	445	333	312	450	337	315
Open Circuit Voltage -V <sub>oc</sub> (V)	41.00	38.27	40.98	41.12	38.33	41.10	41.22	38.41	41.20	41.32	38.57	41.30
Short Circuit Current -I <sub>sc</sub> (A)	13.45	10.87	9.48	13.56	10.96	9.56	13.66	11.04	9.63	13.76	11.12	9.70
Maximum Power Voltage -V <sub>mp</sub> (V)	33.98	31.55	34.01	34.08	31.63	34.09	34.18	31.82	34.22	34.28	31.98	34.29
Maximum Power Current -I <sub>mp</sub> (A)	12.82	10.33	8.97	12.92	10.41	9.04	13.03	10.48	9.12	13.13	10.56	9.19
Module Efficiency STC-η <sub>m</sub> (%)	20.09			20.33			20.56			20.79		
Power Tolerance (W)	(0, +3%)											
Pmax Temperature Coefficient	-0.35 %/°C											
Voc Temperature Coefficient	-0.27 %/°C											
Isc Temperature Coefficient	+0.05 %/°C											

STC: Irradiance 1000 W/m<sup>2</sup> module temperature 25°C AM=1.5  
Power measurement tolerance: +/-3%

### Rear Side Power Gain(SRP-440-BMB-BG)

Power Gain	10%	15%	20%	25%	30%
Maximum Power -P <sub>mp</sub> (W)	484	506	528	550	572
Open Circuit Voltage -V <sub>oc</sub> (V)	41.12	41.12	41.12	41.12	41.12
Short Circuit Current -I <sub>sc</sub> (A)	14.92	15.60	16.27	16.95	17.63
Maximum Power Voltage -V <sub>mp</sub> (V)	34.08	34.08	34.08	34.08	34.08
Maximum Power Current -I <sub>mp</sub> (A)	14.21	14.86	15.50	16.15	16.80

### Application Conditions

Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	25 A
Operating Temperature	-40~+85 °C
Nominal Operating Cell Temperature	45±2 °C
Bifaciality	70%±10%
Mechanical Load	Front side 5400 Pa / Back side 2400 Pa

### I-V Curve

