

# SIV SERIES

Small Changes, Big Accomplishments







## 400-415W



### ● 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

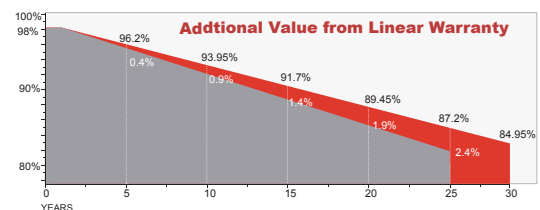
### ● PRODUCT CERTIFICATION



### ● INSURANCE



### ● WARRANTY



Guarantee on product material and workmanship



Linear power output warranty

\*Subject to the terms and conditions contained in the applicable Seraphim Solar System Co., Ltd. Warranty Statement. This 30-year product warranty is only applicable for products installed and operating on residential rooftops in certain regions.



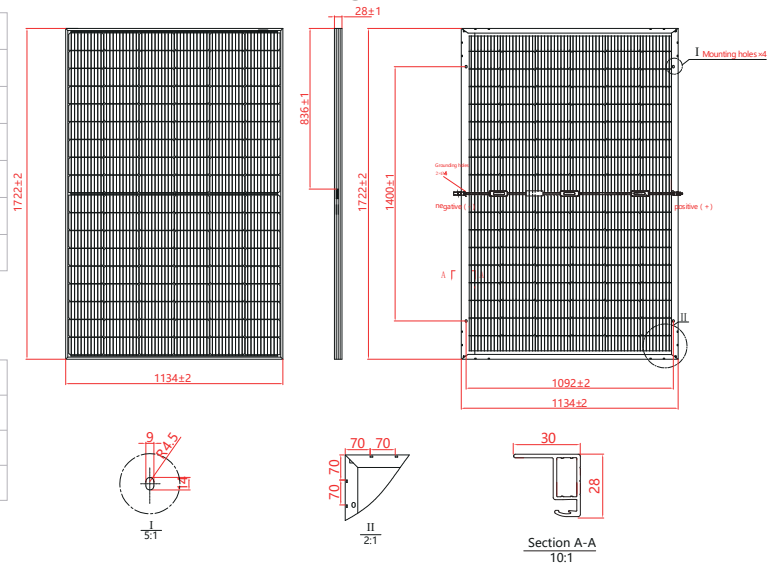
### Mechanical Specifications

External Dimension	1722 x 1134 x 28 mm
Weight	18.5 kg
Solar Cells	PERC Mono crystalline(108 pcs)
Front / Back Glass	1.6mm AR coating semi-tempered glass, low iron
Frame	Black 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	39	39
Pallets per Container	6	26
Pieces per Container	234	1014

### Technical drawing



### Electrical Characteristics

Module Type	SRP-400-BMD-BG			SRP-405-BMD-BG			SRP-410-BMD-BG			SRP-415-BMD-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)	400	301	280	405	304	284	410	308	287	415	311	291
Open Circuit Voltage -V <sub>oc</sub> (V)	37.12	34.64	37.10	37.22	34.73	37.20	37.32	34.81	37.30	37.42	34.90	37.40
Short Circuit Current -I <sub>sc</sub> (A)	13.60	10.99	9.59	13.70	11.07	9.66	13.80	11.15	9.73	13.90	11.23	9.80
Maximum Power Voltage -V <sub>mp</sub> (V)	30.81	28.82	30.80	30.93	28.91	30.98	31.05	29.05	31.03	31.16	29.19	31.17
Maximum Power Current -I <sub>mp</sub> (A)	12.99	10.44	9.10	13.10	10.51	9.17	13.21	10.59	9.25	13.32	10.66	9.34
Module Efficiency STC-η <sub>m</sub> (%)	20.48			20.74			21.00			21.25		
Power Tolerance (W)							(0, +4.99)					
Pmax Temperature Coefficient							-0.34 %/°C					
Voc Temperature Coefficient							-0.26 %/°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-410-BMD-BG)

Power Gain	10%	15%	20%	25%	30%
Maximum Power -P <sub>mp</sub> (W)	451	472	492	513	533
Open Circuit Voltage -V <sub>oc</sub> (V)	37.22	37.22	37.22	37.22	37.22
Short Circuit Current -I <sub>sc</sub> (A)	15.18	15.87	16.56	17.25	17.94
Maximum Power Voltage -V <sub>mp</sub> (V)	31.05	31.05	31.05	31.05	31.05
Maximum Power Current -I <sub>mp</sub> (A)	14.53	15.19	15.85	16.51	17.17

### 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

