

# SIII SERIES

Multiple upgrades were forged into one







## 440-455W



### ● SIII SERIES

Seraphim redefined the high-efficiency module series by integrating 166mm 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

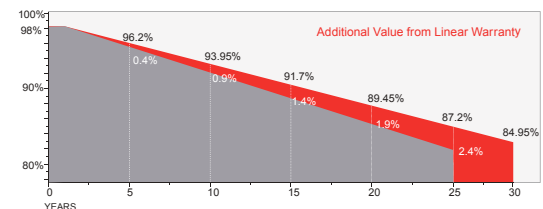
### ● PRODUCT CERTIFICATION



### ● INSURANCE

**PICC**

### ● WARRANTY



**15 YEARS** Guarantee on product material and workmanship

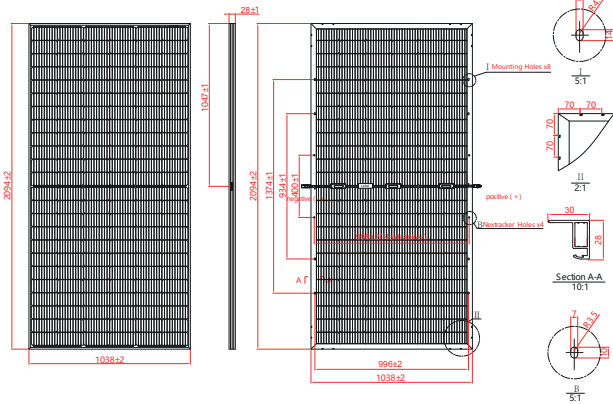
**30 YEARS** Linear power output warranty



**JIANGSU SERAPHIM SOLAR SYSTEM CO., LTD**

Add: No.10, TongshunRd, HenglinTown, Wujin District, 213000, Changzhou, China  
 Tel: +86-519-68788166 Email: [info@seraphim-energy.com](mailto:info@seraphim-energy.com)

### Technical Drawing



\* All Dimensions in mm  
\* The above drawing is a graphical representation of the product. For engineering quality drawings please contact SERAPHIM.

### Mechanical Specifications

External Dimension	2094 x 1038 x 28 mm
Weight	23.0 kg
Solar Cells	PERC Mono 166 x 83 mm (144 pcs)
Front / Back Glass	1.6mm 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	39	39
Pallets per Container	5	22
Pieces per Container	195	858

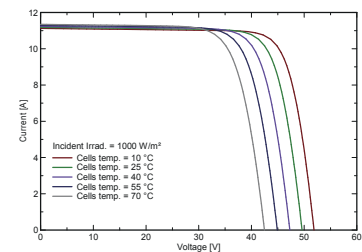
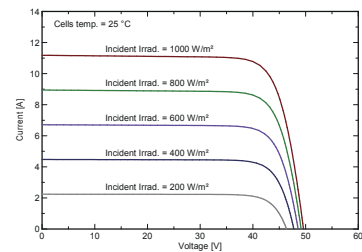
Module Type	SRP-440-BMA-BG			SRP-445-BMA-BG			SRP-450-BMA-BG			SRP-455-BMA-BG		
	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC
Maximum Power -P <sub>mp</sub> (W)	440	330	308	445	334	312	450	338	315	455	342	319
Open Circuit Voltage -V <sub>oc</sub> (V)	49.7	46.4	49.4	49.9	46.6	49.6	50.1	46.8	49.8	50.3	47.0	50.0
Short Circuit Current -I <sub>sc</sub> (A)	11.27	9.11	7.95	11.34	9.17	8.00	11.41	9.22	8.04	11.48	9.28	8.09
Maximum Power Voltage -V <sub>mp</sub> (V)	41.4	38.3	41.5	41.6	38.5	41.7	41.8	37.7	41.9	42.0	38.9	42.1
Maximum Power Current -I <sub>mp</sub> (A)	10.63	8.62	7.43	10.70	8.68	7.49	10.77	8.73	7.52	10.84	8.80	7.58
Module Efficiency STC-η <sub>m</sub> (%)	20.24			20.47			20.70			20.93		
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-445-BMA-BG)

Power Gain	10%	15%	20%	25%	30%
Maximum Power -P <sub>mp</sub> (W)	490	512	534	556	579
Open Circuit Voltage -V <sub>oc</sub> (V)	49.9	49.9	49.9	49.9	49.9
Short Circuit Current -I <sub>sc</sub> (A)	12.47	13.04	13.61	14.18	14.74
Maximum Power Voltage -V <sub>mp</sub> (V)	41.6	41.6	41.6	41.6	41.6
Maximum Power Current -I <sub>mp</sub> (A)	11.77	12.31	12.84	13.38	13.91

### I-V Curve



### Application Conditions

Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	20 A
Operating Temperature	-40~+85 °C
Nominal Operating Cell Temperature	45±2 °C
Bifaciality	70%±10%
Mechanical Load	Front side 5400 Pa / Rear side 2400 Pa

Specifications are subject to change without further notification SRP-DS-EN-2022V2.0 © Copyright 2022 Seraphim



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