

SIII SERIES

Multiple upgrades were forged into one

435-450_w



● SIII SERIES

Seraphim Energy Group (SEG) redefined the high-efficiency module series by integrating 166mm silicon wafers with multi-busbar and half-cut cell technologies. SEG 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 improve ROI
- Outstanding reliability proven by PVEL for stringent environment condition :
 - Sand, acid, salt, and hail stones
 - 2400pa wind load and 5400pa snow load
 - Anti-PID

● QUALITY SYSTEM

ISO19001 / ISO14001 / OHSAS18001

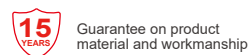
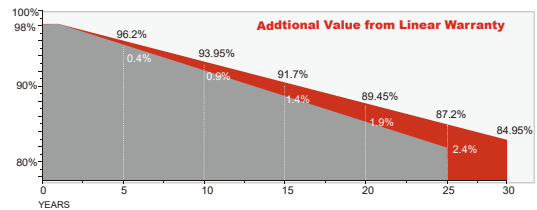
● PRODUCT CERTIFICATION



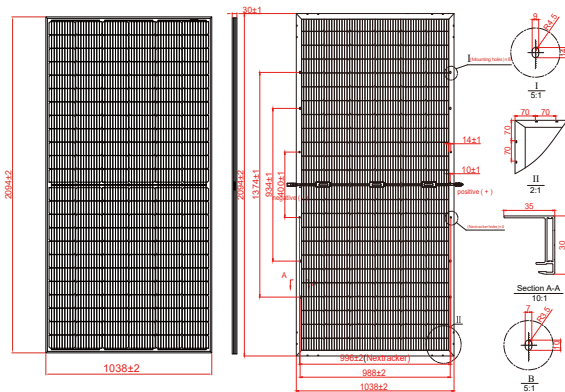
● INSURANCE



● WARRANTY



Technical Drawing



* All Dimensions in mm

Mechanical Specifications

External Dimension	2094x 1038 x 30 mm
Weight	28.0 kg
Solar Cells	PERC Mono 166 x 83 mm (144 pcs)
Front / Back Glass	2.0mm AR coating semi-tempered glass, low iron
Frame	Anodized aluminum alloy
Junction Box	IP68, 3 diodes
Output Cables	4.0 mm ² , 250mm(+)/350mm(-) or Customized Length

Packing Configuration

Container	40'HQ
Pieces per Pallet	32
Pallets per Container	22
Pieces per Container	704

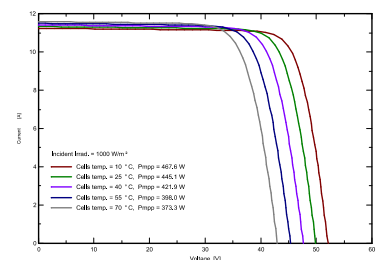
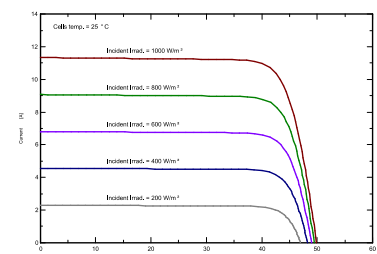
Module Type	SEG-435-BMA-BG		SEG-440-BMA-BG		SEG-445-BMA-BG		SEG-450-BMA-BG	
	Front	Back	Front	Back	Front	Back	Front	Back
STC								
Maximum Power -P _{mp} (W)	435	324	440	328	445	332	450	336
Open Circuit Voltage -V _{oc} (V)	49.6	45.3	49.7	45.4	49.9	45.6	50.1	45.8
Short Circuit Current -I _{sc} (A)	11.18	9.02	11.27	9.10	11.34	9.17	11.41	9.24
Maximum Power Voltage -V _{mp} (V)	41.3	38.2	41.4	38.3	41.6	38.5	41.8	38.7
Maximum Power Current -I _{mp} (A)	10.54	8.49	10.63	8.57	10.70	8.63	10.77	8.69
Module Efficiency STC-η _m (%)	20.01		20.24		20.47		20.70	
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/m² module temperature 25°C AM=1.5
Power measurement tolerance: +/- 3%

Rear Side Power Gain(SEG-435-BMA-BG)

Power Gain	10%	15%	20%	25%	30%
Maximum Power -P _{mp} (W)	479	500	522	544	566
Open Circuit Voltage -V _{oc} (V)	49.6	49.6	49.6	49.6	49.6
Short Circuit Current -I _{sc} (A)	12.29	12.86	13.41	13.97	14.53
Maximum Power Voltage -V _{mp} (V)	41.3	41.3	41.3	41.3	41.3
Maximum Power Current -I _{mp} (A)	11.59	12.12	12.64	13.17	13.70

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 5400Pa / Rear side 2400Pa



Specifications are subject to change without further notification SEG-DS-EN-2021V1.0 © Copyright 2021 SEG