SERAPHIM®

SHIFTING·THE FUTURE
www.seraphim-energy.com

Polaris

645-670w

High efficiency bifacial modules

BC 182*96mm

• BC MODULE ADVANTAGE

- Back Contact Technology More Power Generation Under Same Area
- Superior Load Capacity Ultimate Aesthetics Low Glare
- Highest Efficiency With The Best Energy Generation Performance
- Excellent Low-light Performance
- Lower Annual Degradation Longer Warranty
- Low Bos And Lcoe
- Anti-shading And Prevent Localized Overheating
- Low Carbon and Environmentally Friendly

• QUALITY SYSTEM

ISO9001 / ISO14001 / ISO45001 / IEC62941

• WARRANTY

- 15 YEARS Guarantee on product material and workmanship
- 30 YEARS Linear power output warranty

• INSURANCE

PICC

• PRODUCT CERTIFICATION

TÜV SÜD | CE | PV CYCLE | CLEAN ENERGY COUNCIL MEMBER | CQC | ETL Intertek

SERAPHIM ENERGY GROUP CO., LTD.

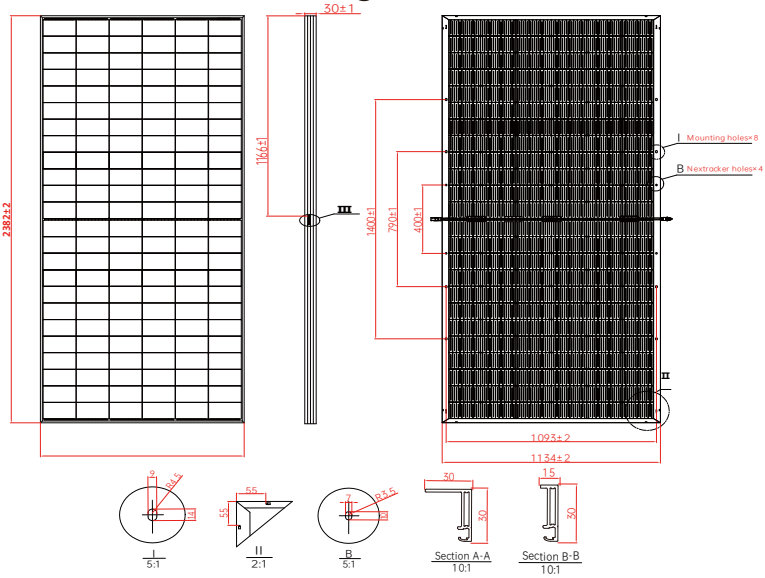
SERAPHIM®

SHIFTING·THE FUTURE
www.seraphim-energy.com

Mechanical Specifications

External Dimension	2382x 1134 x 30 mm
Weight	33.5 kg
Solar Cells	144(6*24)
Front / Back Glass	2.0mm AR coating semi-tempered glass, low iron
Frame	Anodized aluminium alloy
Junction Box	IP68, 3 diodes
Output Cables	4.0mm², 250mm(+)/350mm(-) or Customized Length

Technical drawing



Packing Configuration

Container	20'GP	40'HQ
Pieces per Pallet	36	36
Pallets per Container	4	20
Pieces per Container	144	720

Electrical Characteristics

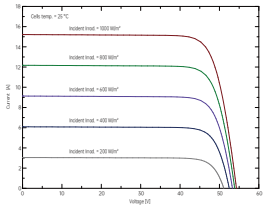
Module Type	SRP-645-BBA-BG		SRP-650-BBA-BG		SRP-655-BBA-BG		SRP-660-BBA-BG		SRP-665-BBA-BG		SRP-670-BBA-BG	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power -P_{mp}(W)	645	491	650	495	655	499	660	502	665	506	670	510
Open Circuit Voltage -V_{oc}(V)	54.12	51.43	54.22	51.53	54.32	51.62	54.42	51.72	54.52	51.81	54.62	51.91
Short Circuit Current -I_{sc}(A)	15.06	12.10	15.14	12.16	15.22	12.22	15.30	12.29	15.35	12.33	15.44	12.40
Maximum Power Voltage -V_{mp}(V)	44.77	42.55	44.87	42.64	44.97	42.74	45.07	42.83	45.17	42.93	45.27	43.02
Maximum Power Current -I_{mp}(A)	14.41	11.55	14.49	11.61	14.57	11.68	14.65	11.75	14.72	11.80	14.80	11.87
Module Efficiency STC-η_m(%)	23.9		24.1		24.2		24.4		24.6		24.8	
Power Tolerance (W)	(0，4.99)											

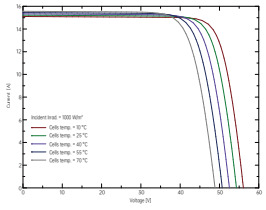
STC: Irradiance 1000 W/m² module temperature 25°C AM=1.5 Power measurement tolerance: +/-3%;Voltage measurement tolerance: +/-3%;Current measurement tolerance: +/-4%
NOCT: Irradiance 800 W/m² ambient temperature 20°C wind speed :1m/s Power measurement tolerance: +/-3%;Voltage measurement tolerance: +/-3%;Current measurement tolerance: +/-4%

Rear Side Power Gain(SRP-655-BBD-BG)

Power Gain	5%	10%	15%	20%	25%
Maximum Power -P_{mp} (W)	688	721	755	788	821
Open Circuit Voltage -V_{oc}(V)	54.32	54.32	54.42	54.42	54.42
Short Circuit Current -I_{sc}(A)	15.98	16.74	17.50	18.26	19.03
Maximum Power Voltage -V_{mp}(V)	44.79	44.97	45.07	45.07	45.07
Maximum Power Current -I_{mp}(A)	15.30	16.03	16.76	17.48	18.21

I-V Curve





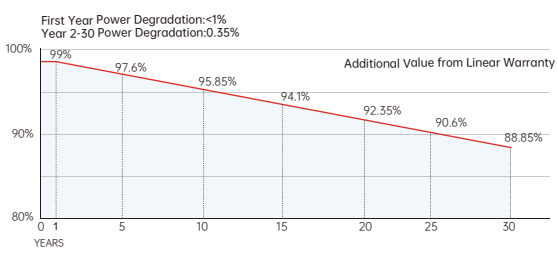
Temperature Ratings

Pmax Temperature Coefficient	-0.26 %/°C
Voc Temperature Coefficient	-0.20 %/°C
Isc Temperature Coefficient	+0.050 %/°C

Application Conditions

Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	30 A
Operating Temperature	-40~+85 °C
Nominal Operating Cell Temperature	45±2 °C
Bifaciality	70%±5%
Mechanical Load	Front side 5400 Pa / Back side 2400 Pa
Hailstone Test	25mm Hailstone at the speed of 23m/s

Warranty



SERAPHIM ENERGY GROUP CO., LTD.
Add: NO.18, Shichuan Road, Jinzhai Economic Development Zone, Lu'an City, Anhui Province
Tel: +86-564-7736177 Email: info@seraphim-energy.com