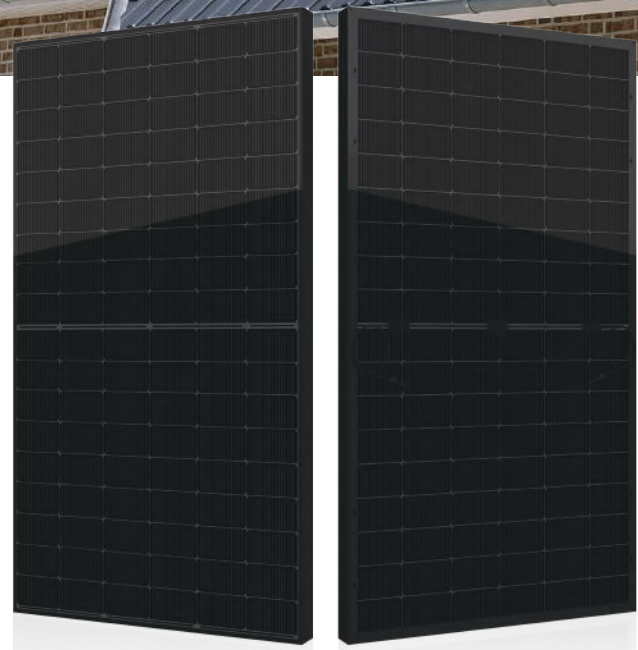










# Nebula 415-430w

Lightweight high efficiency bifacial modules



**TOPCon 182mm**

• **TOPCon MODULE ADVANTAGE**

-  Multi-Busbar technology
-  Superior load capacity
-  High module efficiency
-  Excellent low-light performance
-  Lower annual attenuation  
Longer warranty
-  Low BOS and LCOE
-  Reduce hot spot effect
-  Higher bifaciality

• **QUALITY SYSTEM**

ISO9001 / ISO14001 / ISO45001

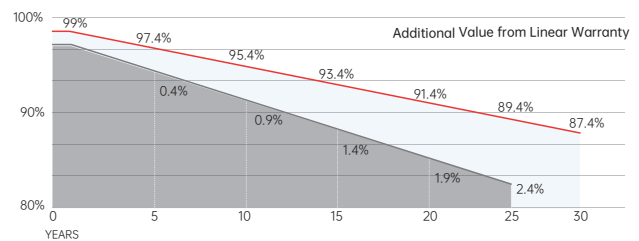
• **PRODUCT CERTIFICATION**



• **INSURANCE**



• **WARRANTY**



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

**30 YEARS** Linear power output warranty



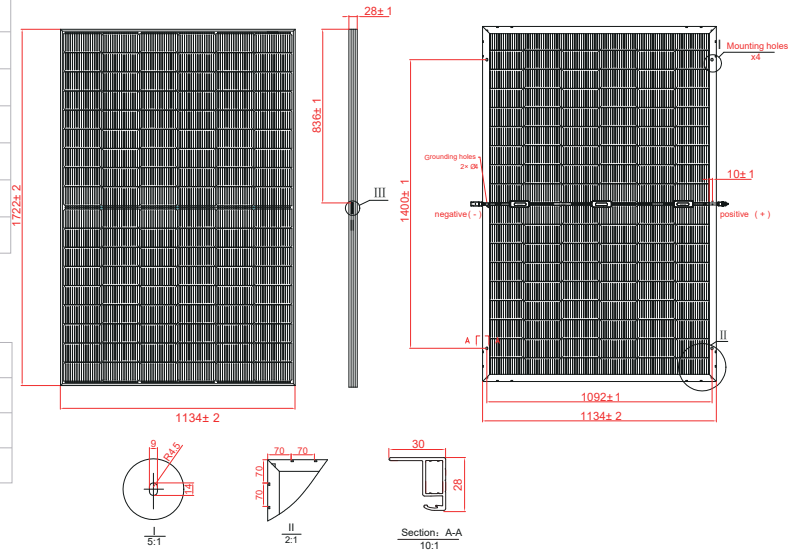
## Mechanical Specifications

External Dimension	1722 x 1134 x 28 mm
Weight	21.0 kg
Solar Cells	TOPCon 182 x 91mm (108pcs)
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'HQ	40'HQ
Pieces per Pallet	39	39
Pallets per Container	6	26
Pieces per Container	234	1014

## Technical drawing



## Electrical Characteristics

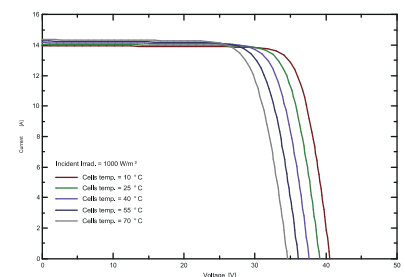
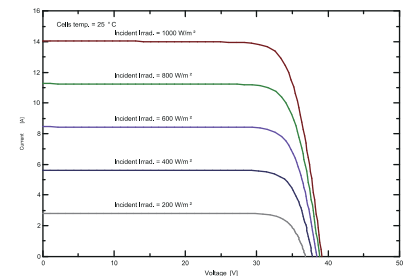
Module Type	SRP-415-BTD-BG			SRP-420-BTD-BG			SRP-425-BTD-BG			SRP-430-BTD-BG		
	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC
Maximum Power -P <sub>mp</sub> (W)	415	312	332	420	316	336	425	320	340	430	324	344
Open Circuit Voltage -V <sub>oc</sub> (V)	38.30	36.39	38.28	38.50	36.58	38.48	38.70	36.77	38.68	38.90	36.96	38.88
Short Circuit Current -I <sub>sc</sub> (A)	13.75	11.00	11.00	13.83	11.06	11.06	13.91	11.13	11.13	13.99	11.19	11.19
Maximum Power Voltage -V <sub>mp</sub> (V)	31.70	29.79	31.68	31.90	29.99	31.88	32.10	30.21	32.08	32.30	30.41	32.28
Maximum Power Current -I <sub>mp</sub> (A)	13.09	10.47	10.48	13.17	10.54	10.54	13.24	10.59	10.60	13.32	10.66	10.66
Module Efficiency STC-η <sub>m</sub> (%)	21.25			21.51			21.76			22.02		
Power Tolerance (W)	(0, +4.99)											
Pmax Temperature Coefficient	-0.29 %/°C											
Voc Temperature Coefficient	-0.25 %/°C											
Isc Temperature Coefficient	+0.046 %/°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-420-BTD-BG )

Power Gain	10%	15%	20%	25%	30%
Maximum Power -P <sub>mp</sub> (W)	462	483	504	525	546
Open Circuit Voltage -V <sub>oc</sub> (V)	38.50	38.50	38.50	38.50	38.50
Short Circuit Current -I <sub>sc</sub> (A)	15.21	15.90	16.60	17.29	18.00
Maximum Power Voltage -V <sub>mp</sub> (V)	31.90	31.90	31.90	31.90	31.90
Maximum Power Current -I <sub>mp</sub> (A)	14.49	15.15	15.80	16.46	17.12

## I-V Curve



## 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	80%±5%
Mechanical Load	Front side 5400 Pa / Back side 2400 Pa

Specifications are subject to change without further notification SRP-DS-EN-2024V1.1 © Copyright 2024 Seraphim



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