

# Nebula

## 425-450W

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

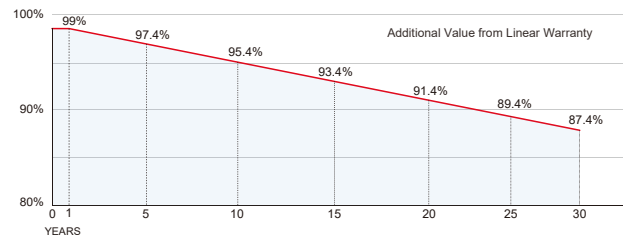
● **PRODUCT CERTIFICATION**



● **INSURANCE**



● **WARRANTY**



Guarantee on product material and workmanship



Linear power output warranty



### Mechanical Specifications

External Dimension	1722 x 1134 x 28 mm
Weight	21.0 kg
Solar Cells	182N-TOPCon (108pcs)
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	6	26
Pieces per Container	234	1014

### Electrical Characteristics

Module Type	SRP-425-BTD-BG		SRP-430-BTD-BG		SRP-435-BTD-BG		SRP-440-BTD-BG		SRP-445-BTD-BG		SRP-450-BTD-BG	
	Front STC	Front BNPI	Front STC	Front BNPI	Front STC	Front BNPI	Front STC	Front BNPI	Front STC	Front BNPI	Front STC	Front BNPI
Maximum Power -P <sub>mp</sub> (W)	425	466	430	471	435	477	440	482	445	488	450	493
Open Circuit Voltage -V <sub>oc</sub> (V)	38.70	38.78	38.90	38.98	39.10	39.18	39.30	39.38	39.50	39.58	39.70	39.78
Short Circuit Current -I <sub>sc</sub> (A)	13.91	15.25	13.99	15.33	14.07	15.42	14.15	15.51	14.23	15.60	14.31	15.68
Maximum Power Voltage -V <sub>mp</sub> (V)	32.10	32.18	32.30	32.38	32.50	32.58	32.70	32.78	32.90	32.98	33.10	33.18
Maximum Power Current -I <sub>mp</sub> (A)	13.24	14.47	13.32	14.55	13.39	14.63	13.47	14.71	13.54	14.79	13.61	14.86
Module Efficiency STC-η <sub>m</sub> (%)	21.76		22.02		22.28		22.53		22.79		23.04	
Power Tolerance (W)	(0,+4.99)											

STC: Irradiance 1000 W/m<sup>2</sup> module temperature 25°C AM=1.5 Power measurement tolerance: +/-3%; Voltage measurement tolerance: +/-3%; Current measurement tolerance: +/-4%  
 BNPI: front 1000 W/m<sup>2</sup> rear 135 W/m<sup>2</sup> Power measurement tolerance: +/-3%; Voltage measurement tolerance: +/-3%; Current measurement tolerance: +/-4%

### Rear Side Power Gain(SRP-440-BTD-BG)

Power Gain	10%	15%	20%	25%	30%
Maximum Power -P <sub>mp</sub> (W)	484	506	528	550	572
Open Circuit Voltage -V <sub>oc</sub> (V)	39.30	39.30	39.30	39.30	39.30
Short Circuit Current -I <sub>sc</sub> (A)	15.57	16.27	16.98	17.69	18.40
Maximum Power Voltage -V <sub>mp</sub> (V)	32.70	32.70	32.70	32.70	32.70
Maximum Power Current -I <sub>mp</sub> (A)	14.82	15.49	16.16	16.84	17.51

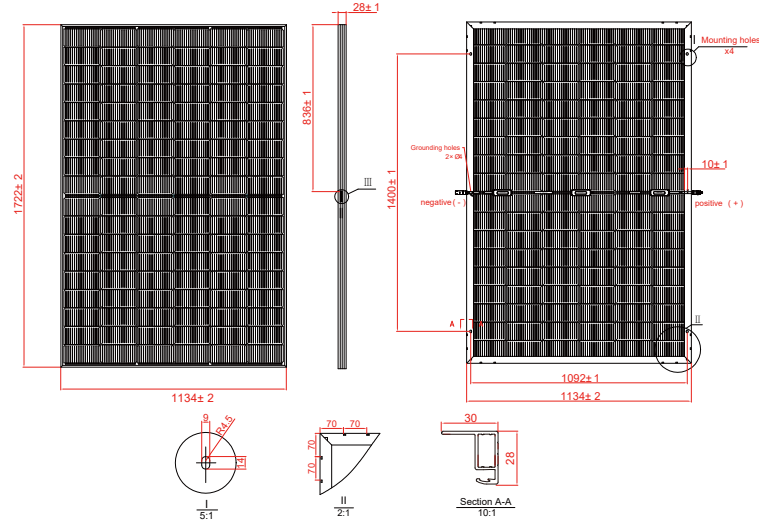
### Temperature Ratings

Pmax Temperature Coefficient	-0.29 %/°C
Voc Temperature Coefficient	-0.25 %/°C
Isc Temperature Coefficient	+0.046 %/°C

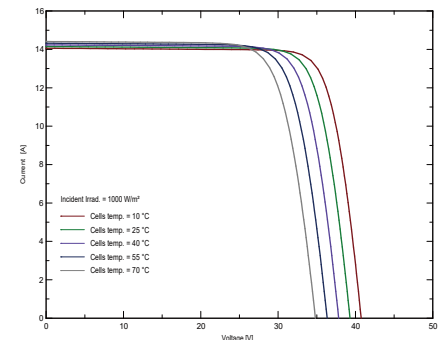
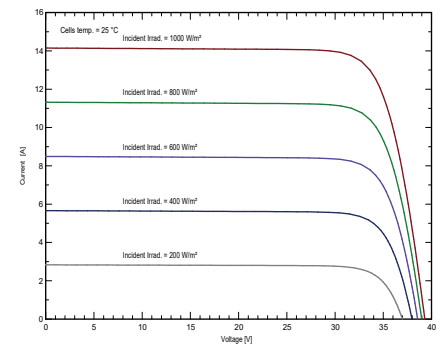
### Application Conditions

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

### Technical drawing



### I-V Curve



Specifications are subject to change without further notification SRP-DS-EN-2026V1.0 © Copyright 2026 Seraphim



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