

Bi-Facial Module



AMPS-440N-108BB
108 PCS N-TOPCon Bi-Facial
425W-450W

Domestic Content Available

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

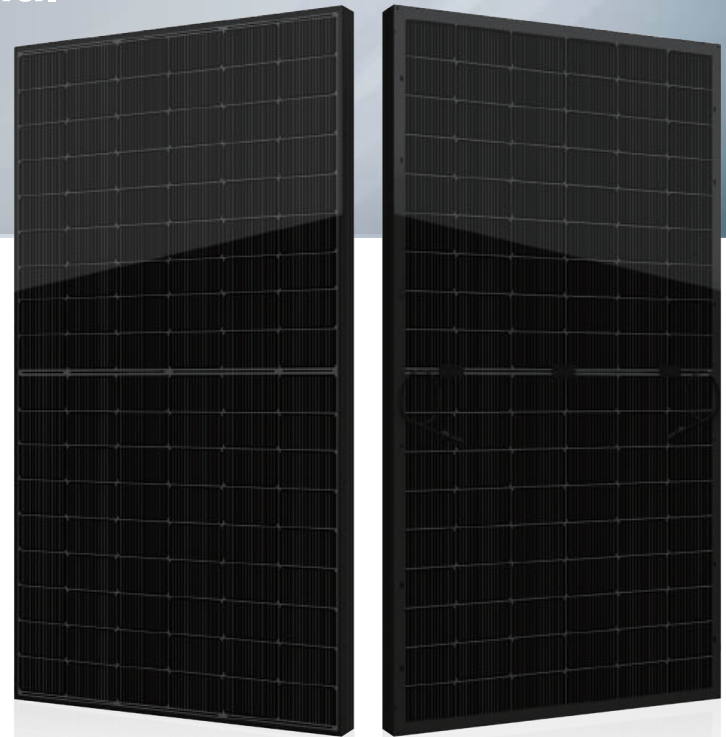


Higher bifaciality

Quality System

ISO9001 / ISO14001 / ISO45001

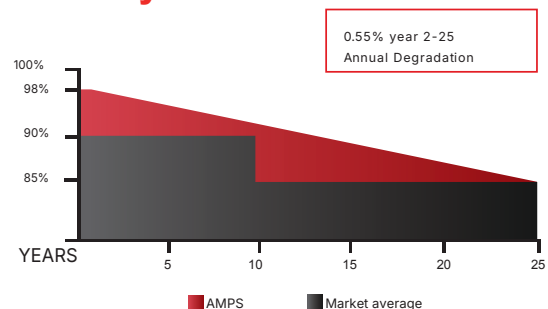
Product Certification



Domestic Content: Rooftop

MLPE: Up to 13.1%; String(Fixed): Up to 16.4%
Frame | Encapsulant | Backsheet | Junction Box | Bus Ribbons

Warranty



Guarantee on product material and workmanship



Linear power output warranty

AMPS SOLAR

Add: 8787 Caliente Rd, Hesperia, CA, United States
Email: info@ampssolarusa.com

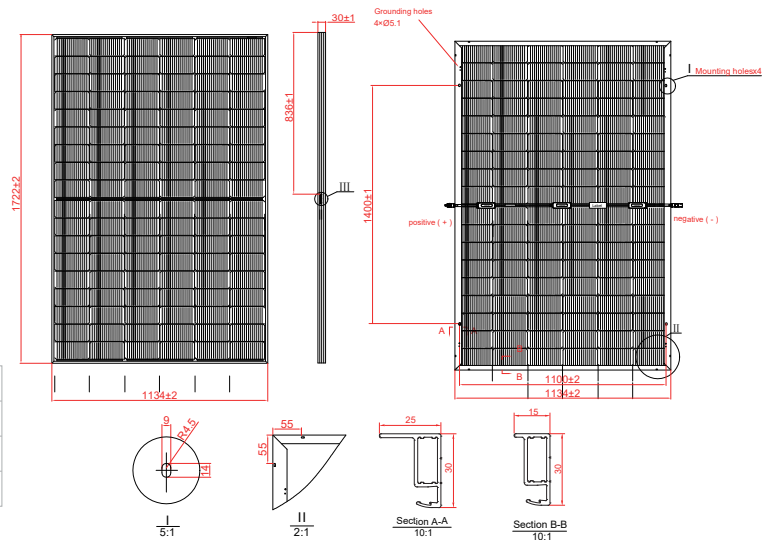
Mechanical Specifications

External Dimension	1722 x 1134 x 30 mm
Weight	24.0 kg
Solar Cells	182N-TOPCon (108pcs)
Front / Back Glass	2.0mm AR coating semi-tempered glass, low iron
Frame	Black anodized aluminium alloy
Junction Box	IP68, 3 diodes
Output Cables	4.0mm ² , 250mm(+)/350mm(-) or Customized Length
Connector	Stäubli EVO2

Packing Configuration

Container	53' Container	40' Container
Pieces per Pallet	36	36
Pallets per Container	21	18
Pieces per Container	756	648

Technical drawing



Electrical Characteristics

Module Type	AMPS-425N-108BB		AMPS-430N-108BB		AMPS-435N-108BB		AMPS-440N-108BB		AMPS-445N-108BB		AMPS-450N-108BB	
	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 _{mp} (W)	425	466	430	471	435	477	440	482	445	488	450	493
Open Circuit Voltage -V _{oc} (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 _{sc} (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 _{mp} (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 _{mp} (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 _m (%)	21.76		22.02		22.28		22.53		22.79		23.04	
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%; BNPI: front 1000 W/m² rear 135 W/m² Power measurement tolerance: +/-3%; Voltage measurement tolerance: +/-3%; Current measurement tolerance: +/-4%

Rear Side Power Gain(AMPS-440N-108BB)

Power Gain	10%	15%	20%	25%	30%
Maximum Power -P _{mp} (W)	484	506	528	550	572
Open Circuit Voltage -V _{oc} (V)	39.30	39.30	39.30	39.30	39.30
Short Circuit Current -I _{sc} (A)	15.57	16.27	16.98	17.69	18.40
Maximum Power Voltage -V _{mp} (V)	32.70	32.70	32.70	32.70	32.70
Maximum Power Current -I _{mp} (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	5400 Pa Snow Load / 5400 Pa Wind Load

I-V Curve

