

Bi-Facial Module



AMPS-590N-144SW

144 PCS N-Type Bi-Facial

575W-600W

Domestic Content Available

• 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

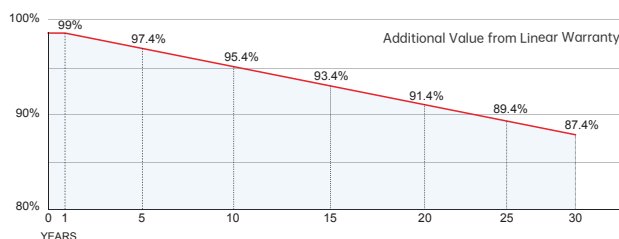
• PRODUCT CERTIFICATION



Domestic Content

Up to 17.4% (Subject to Project Requirements)
Frame | Encapsulant | Junction Box | Bus Ribbons

• WARRANTY



Guarantee on product material and workmanship



Linear power output warranty

AMPS SOLAR

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Email: info@ampssolarusa.com

Mechanical Specifications

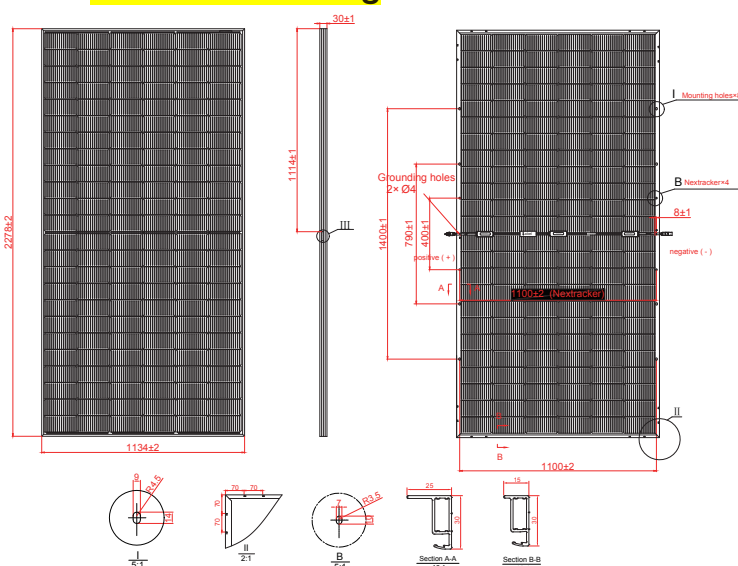
External Dimension	2278 x 1134 x 30 mm
Weight	32.0 kg
Solar Cells	N-Type (144pcs)
Front / Back Glass	2.0mm AR coating semi-tempered glass, low iron
Frame	Anodized aluminium alloy
Junction Box	IP68, 3 diodes
Output Cables	4.0mm ² , 200mm(+)/400mm(-) or Customized Length
Connector	Stäubli EVO2

Packing Configuration

Container	53' Container	40' Container
Pieces per Pallet	36	36
Pallets per Container	16	10
Pieces per Container	576	360

Electrical Characteristics

Technical drawing



Module Type	AMPS-575N-144SW	AMPS-580N-144SW	AMPS-585N-144SW	AMPS-590N-144SW	AMPS-595N-144SW	AMPS-600N-144SW
	Front STC	Front BNPI	Front STC	Front BNPI	Front STC	Front BNPI
Maximum Power -P _{mp} (W)	575	630	580	636	585	641
Open Circuit Voltage -V _{oc} (V)	51.90	51.98	52.10	52.18	52.30	52.38
Short Circuit Current -I _{sc} (A)	14.01	15.35	14.07	15.42	14.13	15.49
Maximum Power Voltage -V _{mp} (V)	43.20	43.28	43.40	43.48	43.60	43.68
Maximum Power Current -I _{mp} (A)	13.32	14.56	13.37	14.62	13.43	14.68
Module Efficiency STC-η _m (%)	22.26	22.45	22.65	22.84	23.03	23.23
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-585N-144SW)

Power Gain	10%	15%	20%	25%	30%
Maximum Power -P _{mp} (W)	644	673	702	731	761
Open Circuit Voltage -V _{oc} (V)	52.30	52.30	52.30	52.30	52.30
Short Circuit Current -I _{sc} (A)	15.54	16.25	16.96	17.66	18.37
Maximum Power Voltage -V _{mp} (V)	43.60	43.60	43.60	43.60	43.60
Maximum Power Current -I _{mp} (A)	14.77	15.44	16.12	16.79	17.46

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	30 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

