

Frameless N-type Bifacial Dual Glass PV Modules

ASB-7-AAA (AAA=345-360) | 72 Cells | 345-360 Wp

Highlights



Modules made with N-type bifacial solar cells



Up to 450 Wp at 30% ground reflectivity



Characterised for 1000 W/m² & 200 W/m² on the front and rear side respectively



Up to 85% bifaciality factor



2*IEC testing to ensure extremely high reliability of PV modules



Near zero LID, PID free, 1500 V module



High insulation resistance due to special raw materials

Reduces installation costs by 4%

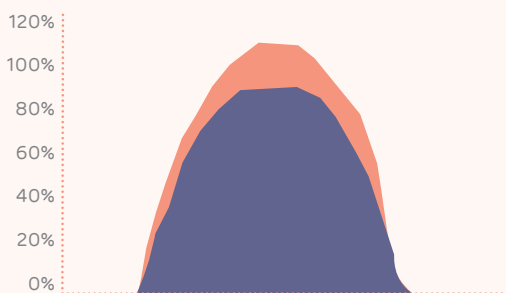
Reduces transport costs by 7%

Reduces land costs by 8%

Reduces BOS costs by 7%

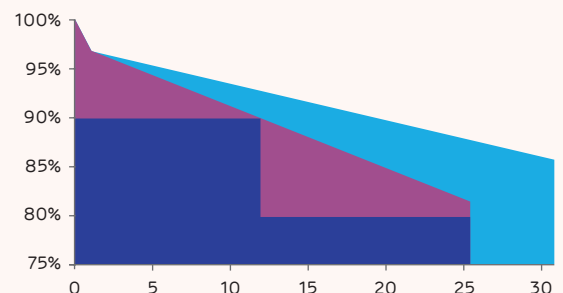
Higher generation due to bifacial technology

Adani bifacial module Standard poly-crystalline module



Significant benefit of bifacial technology

Adani STD Linear STD



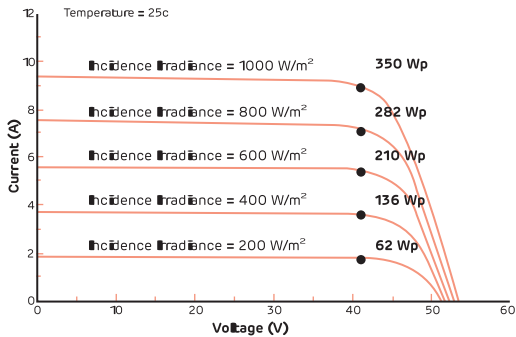
Note: Data is based on the comparison of the Adani-72 cells bifacial module (360 Wp) with industry's average of 320 Wp multi-crystalline module for a scale of 1 MW installation and cost reduction will vary from site to site and project to project basis.

*As per Bloomberg New Energy Finance (BNEF) latest quarterly report, dated 14th August, 2018

Technical Data



Multi irradiance curve for ASB-7-AAA



Electrical data – All data measured to STC *

Electrical specifications	Only front (STC)			
Peak power, (0 ~+ 4.99 Wp) Pmax (Wp)	345	350	355	360
Maximum voltage, Vmpp (V)	37.2	37.5	37.9	38.3
Maximum current, Imp (A)	9.28	9.34	9.37	9.4
Open circuit voltage, Voc (V)	46.3	46.4	46.6	46.5
Short circuit current, Isc (A)	9.69	9.72	9.74	9.75
Module efficiency (%)	17.56	17.82	18.07	18.33

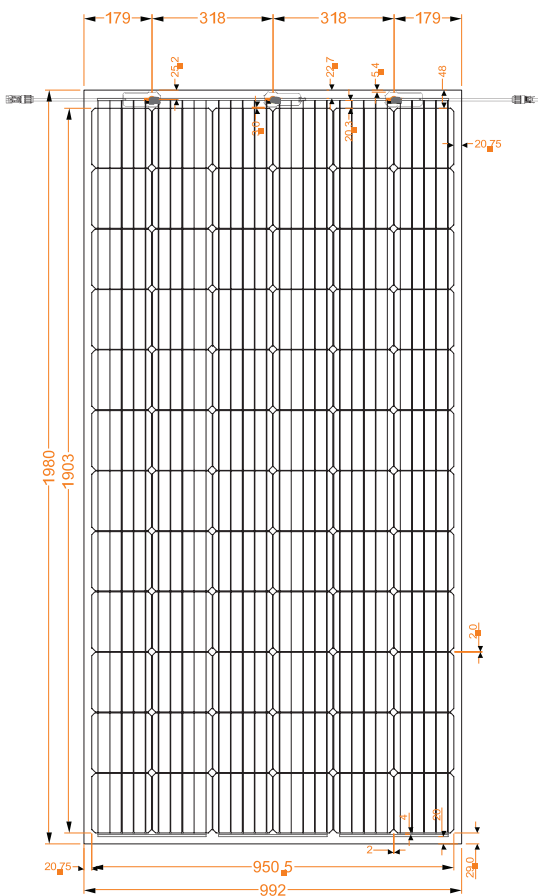
*STC: Irradiance 1000 W/m², cell temperature 25°C, air mass AM1.5 according to EN 60904-3. Average efficiency reduction of 4.5% at 200 W/m² according to EN 60904-1. Except Pmp, all other parameters have a tolerance of +/-3%, measurement uncertainty <3%

Electrical characteristics with different rear side power gain (Reference 355 Wp Front)

Electrical specifications-355 Wp	Pmax gain from rear side*			
Ground Reflectance	15%	20%	25%	30%
Peak power, (0 ~+ 4.99 Wp) Pmax (Wp)	400	415	430	446
Maximum voltage, Vmpp (V)	38	38.1	38.2	38.3
Maximum current, Imp (A)	10.53	10.90	11.27	11.63
Open circuit voltage, Voc (V)	46.7	46.9	47.0	47.1
Short circuit current, Isc (A)	10.95	11.34	11.72	12.10
Module efficiency (%)	20.38	21.15	21.91	22.68

* Power gain from rear side depends upon the ground reflectance (Albedo) & Bifaciality factor.

Dimensions in mm



Temperature co-efficients, NOCT and operating voltage

TC of open circuit voltage (β)	- 0.31% /°C
TC of short circuit current (α)	0.065% /°C
TC of power (γ)	- 0.40% /°C
Maximum system voltage	1500 V (IEC & UL)
NOCT	44°C ± 2°C
Temperature range	- 40°C to + 85°C

Mechanical data

Length	1980 mm
Width	992 mm
Height	6.5 mm
Weight	27 Kg
Junction box	IP67; 3 junction box, MC4 compatible
Cable and connectors	300 mm length cable, MC4 & Amphenol compatible connectors
Application class	Class A (Safety class II)
Superstrate	High transmittance ARC glass 2.5 mm
Cells	72 mono-crystalline N-type bifacial PERT solar cells; 5 bus bars
Encapsulation	Low shrinkage PID free encapsulant
Substrate	High transmittance glass 2.5 mm
Frame	Frameless
Mechanical load test as per IEC & UL	5400 Pa-front; 2400 Pa-back
Maximum series fuse rating	15 A

Warranty and certifications

Product warranty**
12 years of product warranty

Performance guarantee**
Power degradation < 0.8 % / year in first year
< 0.40 % / year in 2-30 years

Approvals and certificates*: IEC 61215-2016
IEC 61730-2016, IEC 61701, UL 1703, MCS, JET,
CEC, CEC-Aus, IEC 62716, IEC 62759, IEC 62782,
IEC 60068-2-68, IEC 61853

*All certifications are under process



Packing information

Container	40'HC
Pallets / Container	24
Pieces / Container	660

Note:

- The specifications included in this datasheet are subject to change without notice.
- The electrical data given here is for reference purpose only.
- Please confirm your exact requirements with the sales representative while placing your order.

** Warranty:

Please read Adani solar warranty documents thoroughly.

*Caution:

Please read safety and installation instructions before using the product.