## \*Coming Soon\*





MBB P-Type PERC Half-cut Bifacial PV Modules

#### ASB-M12-132-AAA (AAA=630-650) | 132 Cells | 630-650 Wp

#### Highlights



MBB cell technology - excellent anti-microcracking performance with more balanced interior stress; grid pattern current path, lower cost



Up to 730 Wp at 15% Bifaciality Gain \*\*



Characterised for 1000 W/m<sup>2</sup> & 200 W/m<sup>2</sup> on the front and rear side respectively



70 ± 5% bifaciality factor



Least Degradation for LID & LeTID with Ga doped Technology



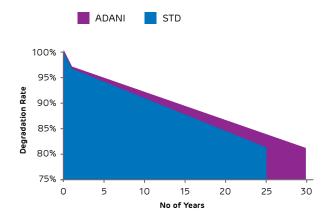
High salt mist and ammonia resistance



#### Higher generation due to bifacial technology

# Adani bifacial module Standard Monofacial module 130% 120% 100% 80% 40% 20% 0%

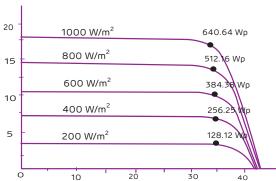
#### Bifacial technology



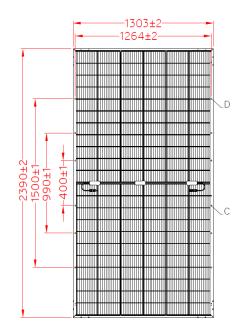
## **Technical Data**

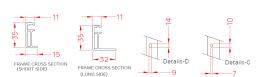
Multi irradiance curve for ASB-M12-132-AAA





#### Dimensions in mm





#### Warranty and certifications

#### Product warranty\*\*

12 years of product warranty

#### Performance guarantee\*\*

Power degradation <2.0 % in first year < 0.55 % / year in 2-30 years

Approvals and certificates\*: IEC 61215 Ed2, IEC 61730, IEC 61701, UL 1703, MCS, JET, CEC, CEC-Aus, IEC 62716, IEC 62782, IEC 60068-2-68, IEC 61853, BIS

\*All certifications are under process















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#### Electrical data - All data measured to STC\*

Electrical Specification	Only front (STC)					
Peak power, (0 ~+ 4.99 Wp) Pmax(Wp)	630	635	640	645	650	
Maximum voltage, Vmpp (V)	36.66	36.82	37.01	37.15	37.32	
Maximum current, Impp (A)	17.19	17.25	17.31	17.37	17.44	
Open circuit voltage, Voc (V)	42.87	43.08	43.28	43.47	43.66	
Short circuit current, Isc (A)	18.57	18.63	18.69	18.75	18.85	_
Module efficiency (%)	20.23	20.39	20.55	20.71	20.87	

\*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 Pmpp, all other parameters have a tolerance of +/-3 %, measurement uncertainty <3 %

# Electrical Characteristics with different rear side power gain (Reference 640 Wp Front)

Pmax gain from rear side*			
5%	10%	15%	20%
670	700	730	765
37.01	37.01	37.01	37.01
18.00	18.91	19.84	20.06
42.91	42.91	42.91	42.91
19.57	20.47	21.36	22.35
21.47	22.43	23.50	24.64
	5% 670 37.01 18.00 42.91 19.57	5% 10% 670 700 37.01 37.01 18.00 18.91 42.91 42.91 19.57 20.47	5%         10%         15%           670         700         730           37.01         37.01         37.01           18.00         18.91         19.84           42.91         42.91         42.91           19.57         20.47         21.36

 $<sup>^{</sup>st}$  Power gain from rear side depends upon the ground reflectance (Albedo) & Bifaciality factor.

# Temperature co-efficients (Tc) and permissible operating conditions

Tc of open circuit voltage ( $\beta$ )	-0.29% /°C
Tc of short circuit current (α)	0.05 % /°C
Tc of power (Y)	-0.35 % /°C
Maximum system voltage	1500 V (IEC & UL)
NOCT	44°C ± 2°C
Temperature range	-40°C to + 85°C

#### Mechanical data Length 2390 mm Width 1303 mm Height 35 mm Weight Junction box IP68; Junction box, MC4 compatibl 300 mm length cable, MC4 & Amphenol Cable and connectors compatible connectors Application class Class A (Safety class II) Superstrate High transmittance ARC glass(3.2 mm) Cells 132 half-cut mono-crystalline P-type PERC

Encapsulation	High volume resistivity and low MVTR	
Substrate	Transparent Backsheet	
Frame	Anodized Frame	
Mechanical load test as per IEC & UL	5400 Pa-front; 2400 Pa-back	
Maximum series fuse rating	35 A	

#### Packaging Configuration

Container	40'HC
Pieces / Container	558

\*\*Disclaimer : Pieces/Container will change subject to Packing design Modification.

#### Note:

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

#### \*\* Warranty:

Please read Adani solar warranty documents thoroughly.

#### \*Caution

Please read safety and installation instructions before using the product. Authorized distributor: Loop Solar