

ELAN SHINE TOPCON Series

N-type
Bifacial Transparent Backsheet Modules

ASB-M10-144-AAA (AAA=550-575)
144 Cells | 550-575 Wp | Gen-II

575+ Wp

Maximum Power
Output

22.28%

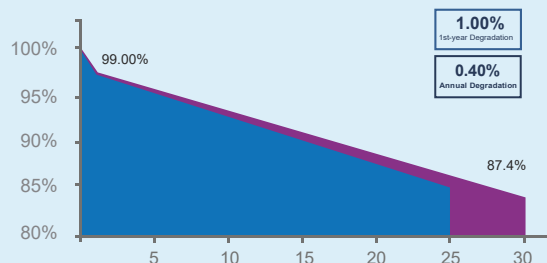
Maximum Efficiency

0~+5W

Power Tolerance

Linear Performance Warranty

Adani Linear Warranty STD Linear Warranty



Highlights



Up to 30% Additional Power Gain when compared with conventional P-type module



No LID Loss - Higher power generation



Better Output In Low Irradiance-
Higher power output even under low-light environments like on cloudy or foggy days



Better Temperature Coefficient-
Higher power generation under higher ambient temperature conditions

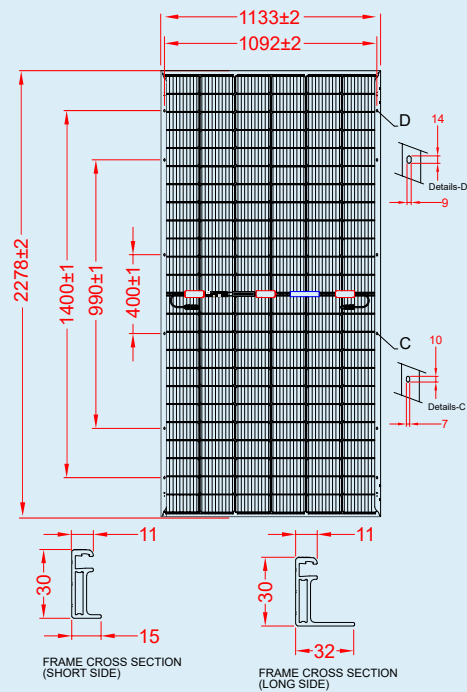


Bifaciality Factor $80 \pm 5 \%$

Delivers Reliable Performance Over Time

- Full-automatic facility and industry-leading technology
- Best-in-class durability and reliability

Dimensions in mm

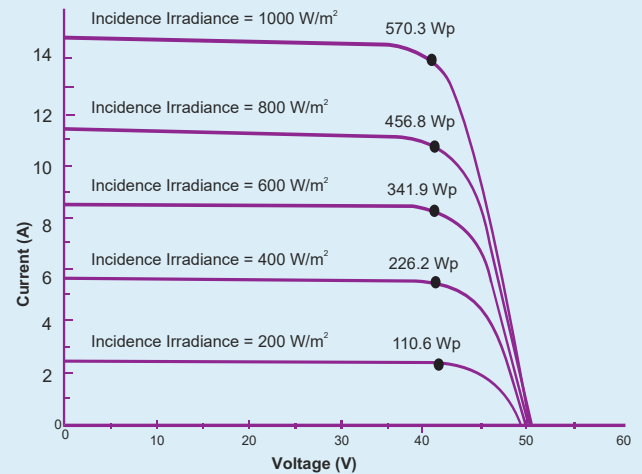


Technical Data

Multi Irradiance Curve

Bifacial M10-144 HC Cell Module

Cell temp: 25°C



Electrical data - All data measured to STC*

Electrical Specification	Only front (STC)					
Peak power, P _{max} (Wp)	550	555	560	565	570	575
Maximum voltage, V _{mpp} (V)	42.00	42.20	42.40	42.60	42.80	43.00
Maximum current, I _{mp} (A)	13.10	13.16	13.21	13.27	13.32	13.38
Open circuit voltage, V _{oc} (V)	50.20	50.40	50.60	50.80	51.00	51.20
Short circuit current, I _{sc} (A)	13.87	13.93	13.99	14.0	14.11	14.17
Module efficiency (%)	21.3	21.5	21.7	21.9	22.1	22.3

*STC: Irradiance 1000 W/m², cell temperature 25°C, Air mass AM 1.5 according to EN 60904-3. Average efficiency reduction is approx. 3% at 200 W/m² according to EN 60904-1. Except P_{mp}, all other parameter have tolerance of +/-3%, measurement uncertainty <3%.

Electrical Characteristics with different rear side power gain (Reference 560 Wp Front)

Electrical Specification	P _{max} gain from rear side*				
Bifaciality Gain	10%	15%	20%	25%	30%
Peak power, (0 ~+ 4.99 Wp) P _{max} (Wp)	616	644	672	700	728
Maximum voltage, V _{mpp} (V)	43.12	43.22	43.32	43.42	43.52
Maximum current, I _{mp} (A)	14.29	14.91	15.53	16.15	16.77
Open circuit voltage, V _{oc} (V)	50.90	51.00	51.10	51.20	51.30
Short circuit current, I _{sc} (A)	15.39	16.08	16.78	17.49	18.18
Module efficiency (%)	23.8	24.9	26.0	27.1	28.20

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

Packaging Configuration

Container	40'HC
Pallets / Container	20
Pieces / Container	720

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.

*Caution:

Please read safety and installation instructions before using the product.

Temperature co-efficients (T_c) and permissible operating conditions

T _c of open circuit voltage (β)	-0.26% /°C
T _c of short circuit current (α)	0.046% /°C
T _c of power (γ)	-0.31% /°C
Maximum system voltage	1500 VDC (IEC & UL)
NOCT	45°C ± 2°C
Temperature range	-40°C to + 85°C

Mechanical data

Length	2278 mm
Width	1133 mm
Height	30 mm
Weight	28 kg
Junction box	IP68
Cable and connectors	300 mm length cable, MC4 compatible connectors
Application class	Class A (Safety class II)
Superstrate	High Transmission ARC glass 3.2 mm
Cells	N-type Bifacial 144 Half-cut cell
Encapsulation	High volume resistivity and low MVTR
Substrate	Transparent / Patterned Backsheet
Frame	Anodized Frame
Design Mechanical load	3600 Pa-downward; 1600 Pa-Upward
Safety Factor for Mechanical load	1.5
Maximum series fuse rating	30 A

Authorized distributor: Loop Solar | +91-9971136369 | www.loopsolar.com | info@loopsolar.com

** Warranty:

Please read Adani solar warranty documents thoroughly.

Warranty and certifications

Product warranty** 12 years of product warranty

Performance warranty** Power degradation <1.0% in first year <0.40% / year in 2-30 years

Approvals and certificates*: IEC 61215, IEC 61730, UL 61730, BIS, IEC 61853-1, IEC 62782, IEC 61853-2, IEC 61701, IEC 60068-2-68, IEC 62716

*All certification are under process

