



## 5BB Multi-crystalline Half-cut Silicon Solar PV Modules – 1500V series

ASP-14-AAA (AAA=320-345) | 144 Cells | 320-345 Wp

### Highlights



5% higher power output compared to industry average poly-crystalline module



Higher specific energy yield (kwh/kwp) due to superior cell + module engineering



Superior performance at NOCT and PCT conditions



Improved performance in shaded conditions



5 Bus Bar cells offering better reliability against microcracks



Triple EL checking to ensure defect-free modules



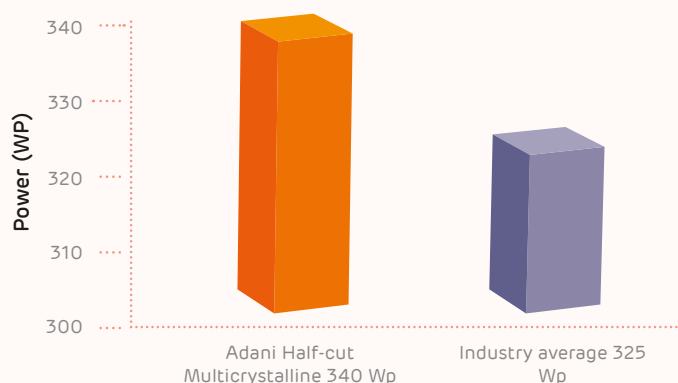
Reduces installation costs by 3%

Reduces transport costs by 3%

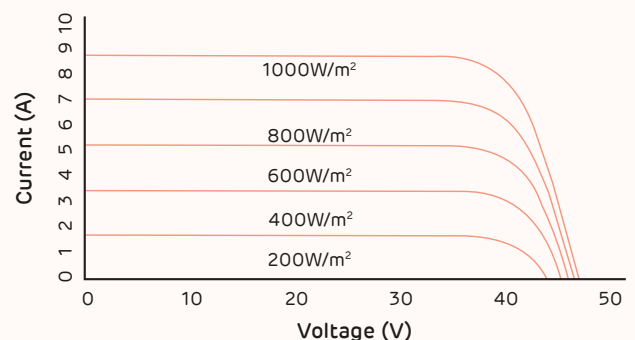
Reduces land costs by 3%

Reduces BOS costs by 3%

### Significant advantages of Adani 5BB Half-cut multi-crystalline module



### Typical current-voltage curve

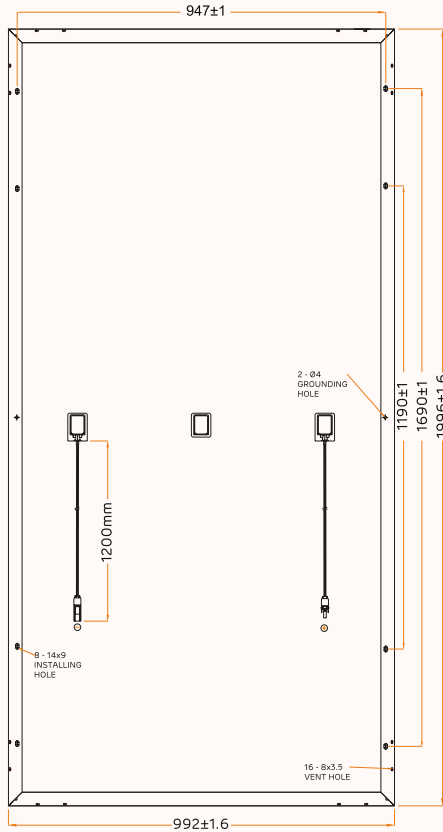


**Note:** Data is based on the comparison of the Adani 144 cells standard multi (340Wp) with industry's average of 325 Wp module for a scale of 1 MW installation and cost reduction will vary from site to site.

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

# Technical Data

## Dimensions in mm



BACK VIEW

## Packing information

Container	40'HC
Pallets / Container	22
Pieces / Container	682 (35mm)/616 (40mm)

## Warranty and certifications

### Product warranty\*\*

12 years of product warranty

### Performance guarantee\*\*

Power degradation <- 2.5 % in first year  
<- 0.68 % / year in 2-25 years

**Approvals and certificates:** IEC 61215-2016, IEC 61730-2016, IEC 61701, UL 1703, MCS, JET, CEC, CEC-Aus, IEC 62716, IEC 62782, IEC 60068-2-68, IEC 61853, IS 14286, IS 61730

\*All certifications are under progress



### \*Caution:

Please read safety and installation instructions before using the product.

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

Peak power, (0 ~+ 4.99 Wp) Pmax(Wp)	320	325	330	335	340	345
Maximum voltage, Vmpp (V)	36.9	37.34	37.78	38.22	38.66	39.1
Maximum current, Impp (A)	8.68	8.71	8.74	8.77	8.8	8.83
Open circuit voltage, Voc (V)	44.24	44.72	45.22	45.62	46.22	46.62
Short circuit current, Isc (A)	8.33	8.73	9.23	9.26	10.23	10.26
Module efficiency (%)	16.16	16.41	16.67	16.92	17.17	17.42

\*STC: Irradiance 1000 W/m<sup>2</sup>, cell temperature 25°C, air mass AM1.5 according to EN 60904-3. Average efficiency reduction of 4.5 % at 200 W/m<sup>2</sup> according to EN 60904-1. Except Pmp, all other parameters have a tolerance of +/-3 %, measurement uncertainty <3 %

## Electrical parameters at NOCT

Pmax @ NOCT	236.8	240.5	244.2	247.9	251.6	255.3
Vmpp @ NOCT	35.06	35.47	35.89	36.31	36.73	37.15
Impp @ NOCT	6.75	6.78	6.80	6.83	6.85	6.87
Voe @ NOCT	42.47	42.93	43.41	43.80	44.37	44.76
Isc @ NOCT	6.58	6.90	7.29	7.32	8.08	8.11

\*NOCT irradiance 800 W/m<sup>2</sup>, ambient temperature 20°C, wind speed 1 m/sec

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

TC of open circuit voltage (β)	-0.29% /°C
TC of short circuit current (α)	0.048 % /°C
TC of power (γ)	-0.39 % /°C
Maximum system voltage	1500 V (IEC & UL)
NOCT	45°C ± 2°C
Temperature range	-40°C to + 85°C

## Mechanical data

Length	1996 mm
Width	992 mm
Height	35 mm/40 mm
Weight	23 Kg (35 mm)/28 Kg (40mm)
Junction box	IP68
Cable and connectors	1200 mm length cable, MC4 & Amphenol compatible connectors
Application class	Class A (Safety class II)
Superstrate	High transmittance arc glass
Cells	144 multi-crystalline solar cells; 5 bus bars, 156.75 x 78.375 mm
Cell encapsulation	Superior dielectric strength & PID resistant EVA
Substrate	Tri layer backsheet
Frame	Anodized aluminium frame with twin wall profile
Mechanical load test as per IEC & UL	5400 Pa-front; 2400 Pa-back
Maximum series fuse rating	15 A

### 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. All models sold will be as per MSPVL QAP.

### \*\* Warranty:

Please read Adani Solar warranty documents thoroughly.