

5BB Mono-crystalline PERC Silicon Solar PV Modules - 1000V series

ASM-7-PERC-AAA (AAA=340-360) | 72 Cells | 340-360 Wp

Highlights



7 % higher power output compared to industry average poly-crystalline module



Higher performance at longer wavelengths of light (1100-1200 nm)



Superior temperature co-efficient and performance at NOCT, PTC ratings



Excellent performance at low light irradiation (200W/m²)



LIR treated cells with least LID effect



5 Bus Bar cells offering better reliability against microcracks



Triple EL checking to ensure defect free modules



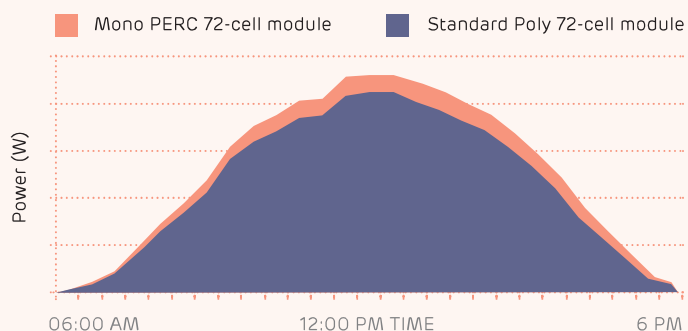
Reduces installation costs by 3%

Reduces transport costs by 3%

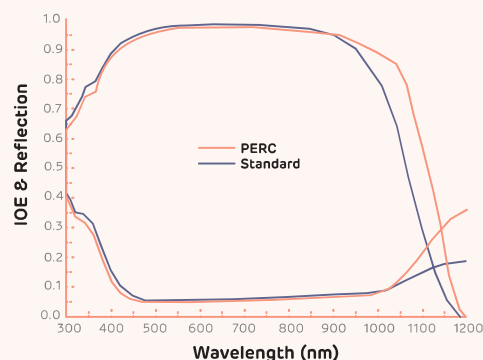
Reduces land costs by 3%

Reduces BOS costs by 3%

Higher generation due to Mono PERC technology



Significant benefit of PERC technology



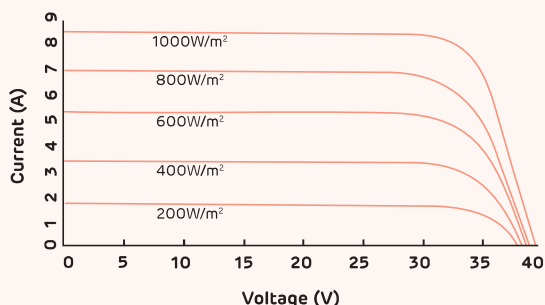
PERC technology enables better light capturing abilities at longer wavelength, weak and diffused light and in cloudy conditions.

Note: Data is based on the comparison of the Adani -72 cells mono-crystalline (345Wp) with industry's 325 Wp poly-crystalline module for a scale of 1 MW installation and will vary from site to site.

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

Technical Data

Current-Voltage Curve

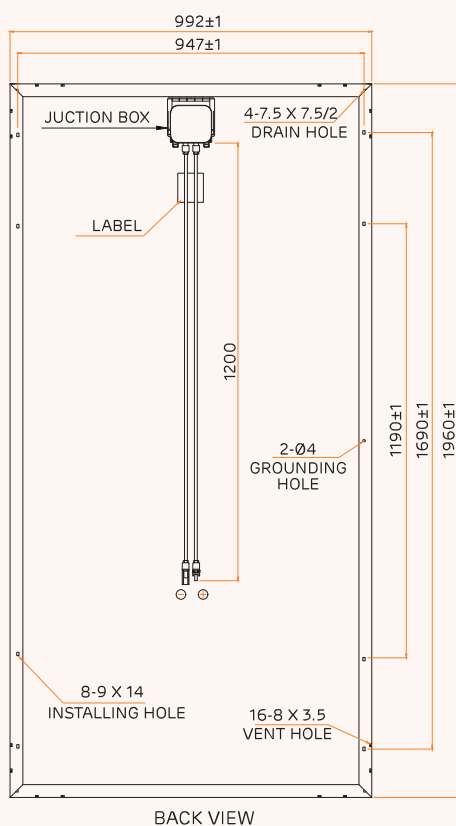


Electrical data – All data measured to STC*

Peak power, (0 ~+ 4.99 Wp)	340	345	350	355	360
Pmax(Wp)					
Maximum voltage, Vmpp (V)	38.82	39.11	39.21	39.41	39.61
Maximum current, Impp (A)	8.76	8.82	8.93	9.01	9.09
Open circuit voltage, Voc (V)	47.12	47.4	47.6	47.9	47.9
Short circuit current, Isc (A)	9.22	9.28	9.36	9.42	9.48
Module efficiency (%)	17.49	17.74	18.00	18.26	18.52

*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 %

Dimensions in mm



Electrical parameters at NOCT

Power(Wp) at NOCT	254	258	263	266	271
V@Pmax(V) at NOCT	36.91	37.4	37.46	37.62	37.92
I@Pmax (A) at NOCT	6.88	6.90	7.01	7.07	7.14
Voc (V) at NOCT	45.55	46.20	46.40	46.30	46.60
Isc (A) at NOCT	7.3	7.32	7.38	7.48	7.56

*NOCT irradiance 800 W/m², 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	1000 V (IEC & UL)
NOCT	45°C ± 2°C
Temperature range	-40°C to + 85°C

Mechanical data

Length	1960 mm
Width	992 mm
Height	35 mm / 40 mm
Weight	22 Kg (35 mm) / 27 Kg (40mm)
Junction box	IP67
Cable and connectors	1200 mm length cable, MC4 & Amphenol compatible connectors
Application class	Class A (Safety class II)
Superstrate	High transmittance arc glass
Cells	72 mono-crystalline perc solar cells ; 5 bus bars, 156.75 mm x 156.75 mm
Encapsulation	Low shrinkage PID resistant EVA
Substrate	Back sheet
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

Warranty and certifications

Product warranty**

12 years of product warranty

Performance guarantee**

Power degradation < - 3 % in first year < - 0.68 % / year in 2-25 years

Approvals and certificates: IEC 61215 Ed2, IEC 61730, IEC 61701, UL 1703, MCS, JET, CEC, CEC-Aus, IEC 62716, IEC 62759, IEC 62804, IEC 62782, IEC 60068-2-68, IEC 61853



*Caution:

Please read safety and installation instructions before using the product.

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 modules sold will be as per MSPVL MQAP

** Warranty:

Please read Adani solar warranty documents thoroughly.