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# **EnergyPal**

## **Solar Panel Guide Specification Data Sheet**

**Adani Solar**  
**ASM-6-PERC-275-300 1000V**  
**M60 275**

Also available on the web at  
[EnergyPal.com/adani-solar-solar-panels/m60-275](http://EnergyPal.com/adani-solar-solar-panels/m60-275)



# Mono-crystalline Silicon Solar PV Modules

**ASM-6-PERC-AAA**  
**ASM-6-B-PERC-AAA** (Black frame, white backsheet)  
**ASM-6-AB-PERC-AAA** (Black frame, white backsheet)  
**60 Cells | 275-300 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/m<sup>2</sup>)



LIR treated cells with least LID effect



PID, salt mist and Ammonia resistant



Triple EL checking to ensure defect free modules

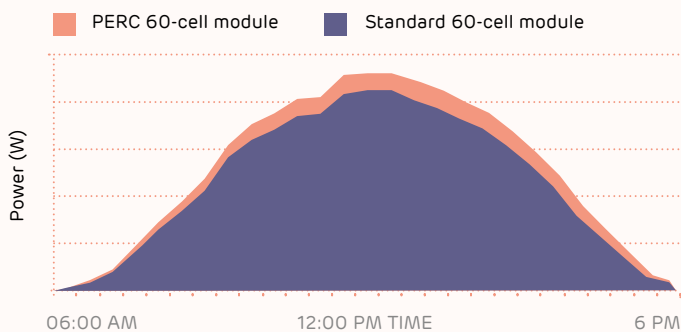
Reduces installation costs by 3%

Reduces transport costs by 3%

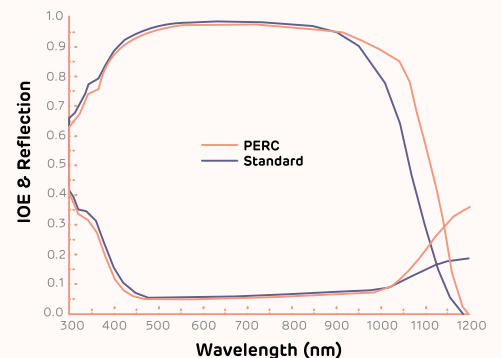
Reduces land costs by 3%

Reduces BOS costs by 3%

## Higher generation due to PERC technology



## Significant benefit of PERC technology



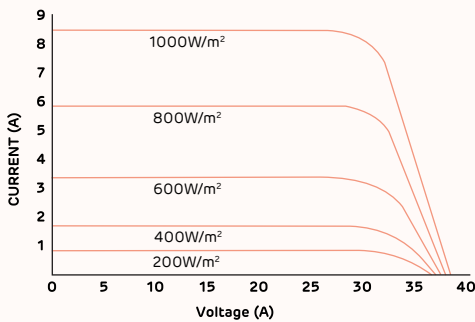
PERC technology enables better light capturing abilities at longer wavelength, weak and diffused light and in cloudy conditions.

**Note:** Data is based on the comparison of the Adani -60 cells mono modules (290Wp) with industry's 275 Wp mono module for a scale of 1 MW installation and will vary from site to site.

"Adani Solar" is the brand name for legal entity "Mundra Solar PV Ltd." having its registered office at "Adani House, Nr Mithakhali Six Roads, Navrangpura, Ahmedabad 380 009, Gujarat, India" and manufacturing unit at "Revenue Survey No: 180/P City: Kutch Taluka: Mundra, Village: Tunda, Post office: Bidada, Pin: 370535".

# Technical Data

## Current-Voltage Curve

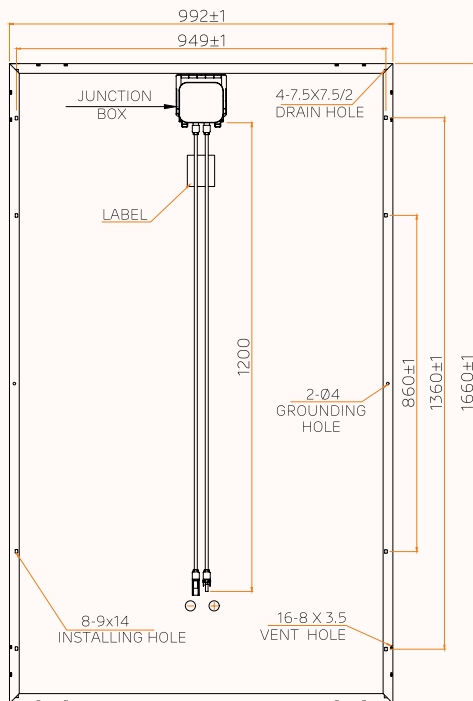


## Electrical data – All data measured to STC\*

|  |       |       |       |       |       |       |
|--|-------|-------|-------|-------|-------|-------|
| Peak power, (0 ~+ 4.99 Wp)<br>Pmax(Wp) | 275   | 280   | 285   | 290   | 295   | 300   |
| Maximum voltage, Vmpp (V)              | 31.59 | 31.80 | 31.91 | 32.20 | 32.40 | 32.55 |
| Maximum current, Impp (A)              | 8.72  | 8.82  | 8.94  | 9.03  | 9.10  | 9.21  |
| Open circuit voltage, Voc (V)          | 38.41 | 38.57 | 38.91 | 39.30 | 39.44 | 39.58 |
| Short circuit current, Isc (A)         | 9.19  | 9.31  | 9.72  | 9.83  | 9.93  | 10.01 |
| Module efficiency (%)                  | 16.70 | 17.00 | 17.30 | 17.61 | 17.91 | 18.21 |

\*STC: Irradiance 1000 W/m<sup>2</sup>, cell temperature 25°C, air mass AM 1.5 according to EN 60904-3. Average efficiency reduction of 4.5 % at 200 W/m<sup>2</sup> according to EN 60904-1

## Dimensions in mm



## Electrical parameters at NOCT

|                    |       |       |       |       |       |       |
|--------------------|-------|-------|-------|-------|-------|-------|
| Power(Wp) at NOCT  | 202   | 206   | 208.5 | 212.7 | 215.4 | 218   |
| V@Pmax(V) at NOCT  | 28.45 | 28.73 | 28.94 | 29.43 | 29.68 | 29.91 |
| I@Pmax (A) at NOCT | 7.10  | 7.17  | 7.20  | 7.23  | 7.26  | 7.29  |
| Voc (V) at NOCT    | 35.80 | 36.00 | 36.20 | 36.40 | 36.60 | 36.80 |
| Isc (A) at NOCT    | 7.56  | 7.58  | 7.60  | 7.62  | 7.66  | 7.70  |

\*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)  | -0.31% /°C        |
| TC of short circuit current (α) | 0.068 % /°C       |
| TC of power (γ)                 | -0.40 % /°C       |
| Maximum system voltage          | 1000 V (IEC & UL) |
| NOCT                            | 44°C ± 2°C        |
| Temperature range               | -40°C to + 85°C   |

## Mechanical data

|                                      |  |
|--------------------------------------|--|
| Length                               | 1660 mm  |
| Width                                | 992 mm   |
| Height                               | 35 mm / 40 mm  |
| Weight                               | 17.5 Kg (35 mm) / 18.8 Kg (40mm)                                   |
| Junction box                         | IP67, 14A junction box   |
| Cable and connectors                 | 1200 mm length cable, MC4 & Amphenol compatible connectors         |
| Application class                    | Class A (Safety Class II)  |
| Superstrate                          | High transmittance ARC glass                                       |
| Cells                                | 60 mono-crystalline solar cells ; 4 bus bars, 156.75 x 156.75 mm   |
| Encapsulation                        | Low shrinkage encapsulant  |
| Substrate                            | Backsheet (Also available in black colour)#                        |
| Frame                                | Anodized aluminium frame with twin wall profile (Silver and black) |
| Mechanical load test as per IEC & UL | 5400 Pa-front ; 2400 Pa-back                                       |
| Maximum series fuse rating           | 15 A   |

## Warranty and certifications

**Product warranty\*\***  
25 years linear power warranty

**Performance guarantee\*\***  
Power degradation < - 2.5 % 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



**\*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.

**\*\* Warranty:**

Please read Adani solar warranty documents thoroughly.