

ETERNAL Series Mono-crystalline PERC Silicon Solar PV Modules

ASM-6-PERC-AAA

ASM-6-B-PERC-AAA (Black frame, white backsheet)

ASM-6-AB-PERC-AAA (Black frame, black backsheet)

60 Cells | 300-320 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 (200 W/m²)



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%

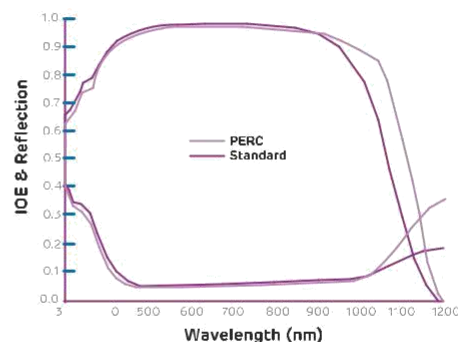
Reduces transport costs by 3%

Reduces land costs by 3%

Reduces BOS costs by 3%



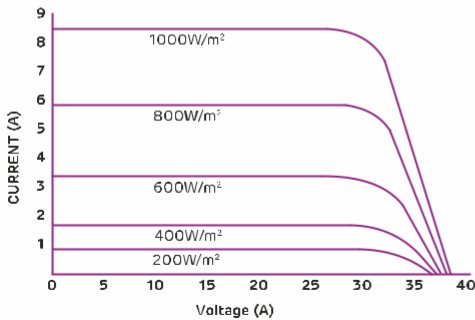
Significant benefit of PERC technology



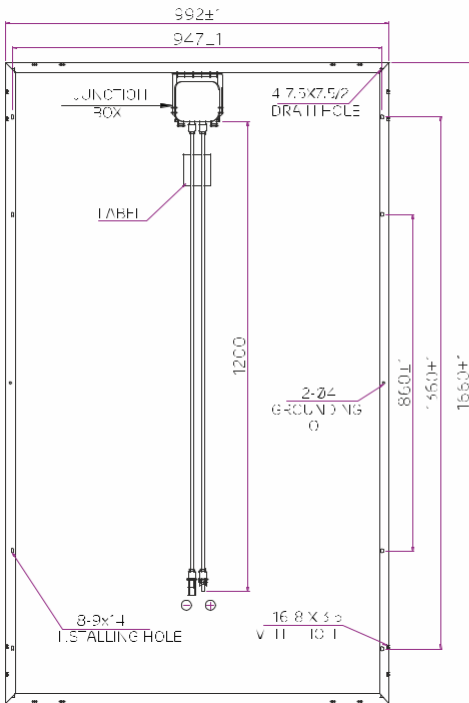
PERC technology enables better light capturing abilities at longer wavelength, weak and diffused light and in cloudy conditions.

Technical Data

Current-Voltage Curve



Dimensions in mm



Electrical data – All data measured to STC*

| Peak power, (0 ~+ 4.99 Wp) Pmax (Wp) | 300 | 305 | 310 | 315 | 320 |
|---|-------|-------|-------|-------|-------|
| Maximum voltage, Vmpp (V) | 32.55 | 32.76 | 32.93 | 33.11 | 33.29 |
| Maximum current, Imp (A) | 9.21 | 9.3 | 9.42 | 9.52 | 9.62 |
| Open circuit voltage, Voc (V) | 39.53 | 39.92 | 40.11 | 40.35 | 40.59 |
| Short circuit current, Isc (A) | 10.01 | 10.27 | 10.41 | 10.58 | 10.75 |
| Module efficiency (%) | 18.2 | 18.52 | 18.8 | 19.11 | 19.40 |

Electrical parameters at NOCT

| | | | | | |
|--------------------------------|-------|-------|-------|-------|-------|
| Maximum Power Pmax @ NOCT | 218 | 222 | 225 | 228 | 231 |
| Maximum voltage, Vmpp (V) | 29.91 | 30.25 | 30.56 | 30.85 | 31.15 |
| Maximum current, Imp (A) | 7.29 | 7.33 | 7.37 | 7.41 | 7.45 |
| Open circuit voltage, Voc (V) | 36.80 | 37.00 | 37.20 | 37.40 | 37.59 |
| Short circuit current, Isc (A) | 7.70 | 7.72 | 7.74 | 7.77 | 7.79 |

*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%

*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) | -0.31% /°C |
| TC of short circuit current (α) | 0.068% /°C |
| TC of power (γ) | -0.40% /°C |
| Maximum system voltage | 1000 / 1500 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 |
| 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 PERC solar cells; 5 bus bars |
| Encapsulation | Low shrinkage encapsulant |
| Substrate | Back sheet (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**
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 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.

**** Warranty:**
Please read Adani solar warranty documents thoroughly.