



## South African Modules

Local Content Compliant  
Supports Local Job Creation  
South African Owned  
Locally Guaranteed

## OUR APPROACH

ARTsolar believes high quality solar power should be produced locally at globally competitive pricing. Meticulous manufacturing, testing and quality assurance standards, certified raw materials and an in-house developed MES system ensures consistent traceable quality.

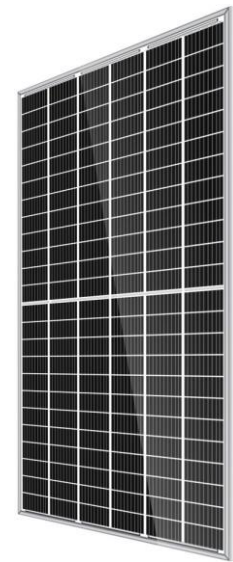
### Local Support

Designed for the African climate:

- 3600pa wind & 5400pa mechanical loads
- High temperature operation
- Certified salt and ammonia resistance
- PID resistance certified by SGS
- Super high efficiency: up to 20.70%
- Quality control and traceability by PVflow®

### Certifications

- SABS
- CSA, IEC61701, IEC 61215, IEC 62804,
- IEC 62716, IEC 61701, IEC 60068
- State of the ART Swiss production facility
- Earth leakage tested to 3600V DC
- Triple Electroluminescence (EL) tested
- Built for export to Europe

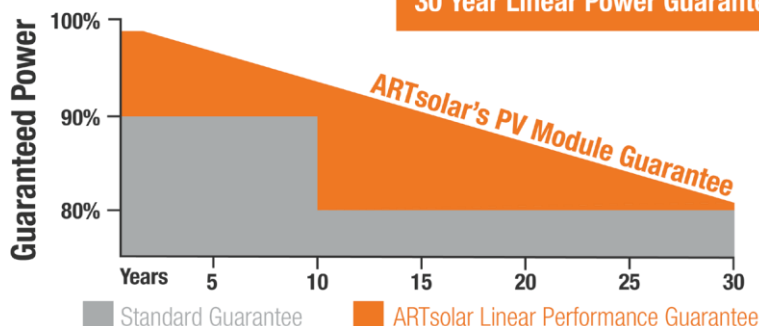


### ART450-144-1500MH

Half-Cut Cell Mono PERC  
Solar Panel

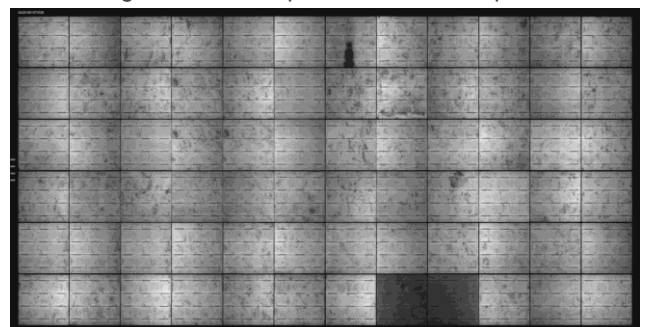
### Locally Guaranteed

12 Year Product Guarantee  
30 Year Linear Power Guarantee



### Multiple Electro-Luminescence (EL) Tested

- Multiple EL tests throughout the production line
- EL Images can be requested with each purchase



Make sure your PV module doesn't look like this.  
An EL looks like an X-ray which spots cracks and power loss areas invisible to the naked eye.

**Einnova Solarline**  
invented for solar



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## MODULE DESIGN

### Module Dimensions and Weights

144 Cell - 2094 x 1038 x 35mm (23.5kg)

## SPECIFICATIONS

**Solar Cells:** MBB, Large Wafer, Half Cut Cell  
Mono Perc

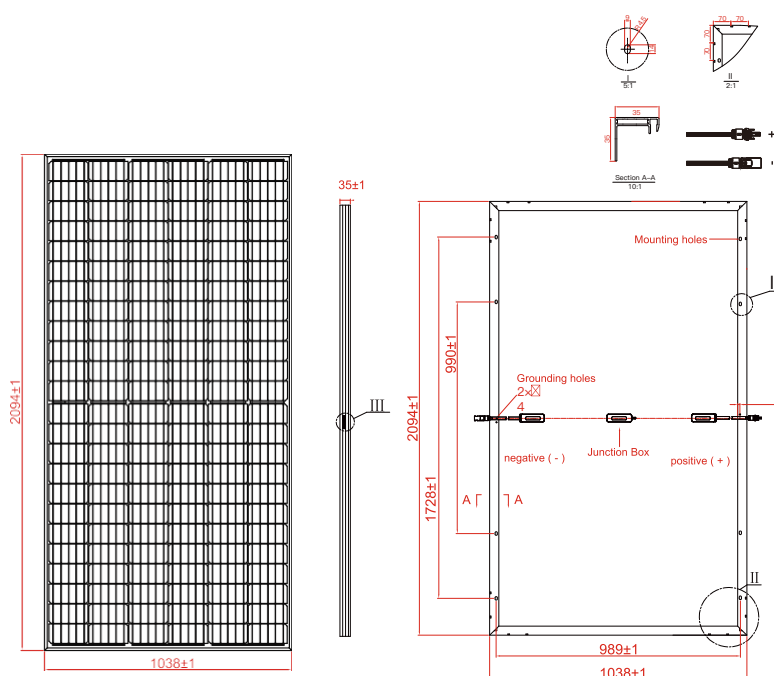
**Solar Glass:** 3.2mm, tempered, low iron,  
high transparency solar safety  
glass with anti-reflective coating.

**Encapsulation:** EVA

**Backsheet:** White

**Frame:** Extruded, anodized aluminum

**Junction Box:** IP68 rated 1500V,  
1100mm cable,  
MC4 standard connectors



### Electrical Data @ STC

Design	Pmax(Wp)	Vmp	Imp	Voc	Isc	Eff
144 Cell	450 Wp	41.5V	10.84A	49.3V	11.60A	20.70%

### Electrical Data @ NOCT

Design	Pmax(wp)	Vmp	Imp	Voc	Isc
144 Cell	336 Wp	38.6V	8.70A	46.2V	9.38A

**STC** - Irradiance 1000 W/m<sup>2</sup>, cell temp @ 25°C

**NOCT** - Irradiance 800 W/m<sup>2</sup>, cell temp @ 20°C

### KEY

**Pmax(Wp)** - maximum power, **Vmp** - voltage at max power, **Voc** - open circuit voltage, **Isc** - short circuit current

**Imp** - max power current, **Eff** - module efficiency (%)

**STC** - Standard Test Conditions

**NOCT** - Nominal Operating Cell Temperature

\* Figures are typical values of performance. Slight variances do occur, exact specifications available with each module,

### Temperature Ratings

Nominal Operating Cell Temp	45°C (±2°C)
Nominal Module Operating Temp (NMOT)	41°C (±3°C)
Temp coefficient of Pmax	-0.36%/°C
Temp coefficient of Voc	-0.26%/°C
Temp coefficient of Isc	0.040%/°C

### Maximum Ratings

Operational Temp	-40 to +85°C
Max system Voltage	1500VDC (IEC / UL)
Max Series Fuse Rating	20A
Mechanical Load	5400pa