



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, TÜV certified raw materials and an in-house developed MES system ensures consistent traceable quality.

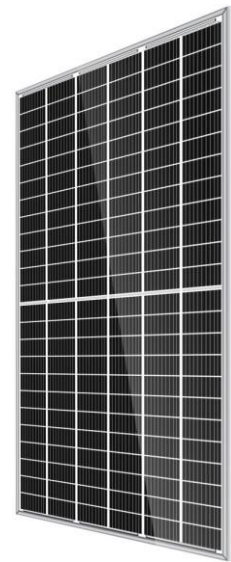
Local Support

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 20.50%
- Quality control and traceability by PVflow®

Certifications

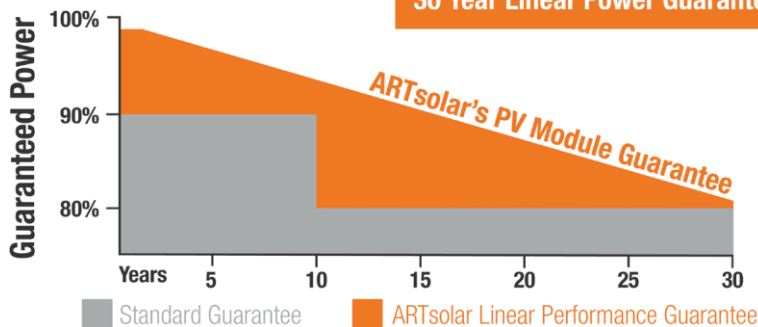
- TÜV & SABS
- CSA, IEC61701, IEC 61215, IEC 62804,
- IEC 62716, IEC 61701, IEC 60068
- State of the ART Swiss production facility
- Earth leakage tested to 3600V DC
- Triple Electroluminescence (EL) tested
- Built for export to Europe



ART445-144-1500MH
 Half-Cut Cell Mono PERC
 Solar Panel

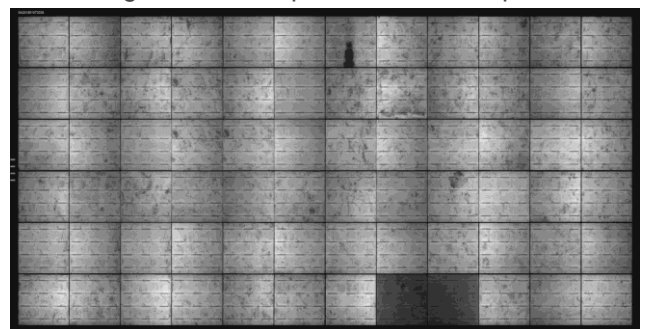
Locally Guaranteed

**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.



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MODULE DESIGN

Module Dimensions and Weights

144 Cell - 2094 x 1038 x 40mm (23.5kg)

SPECIFICATIONS

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

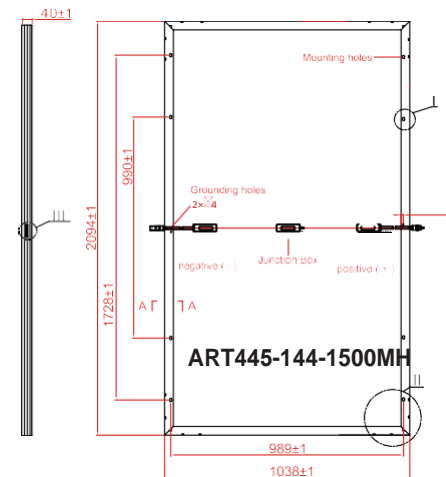
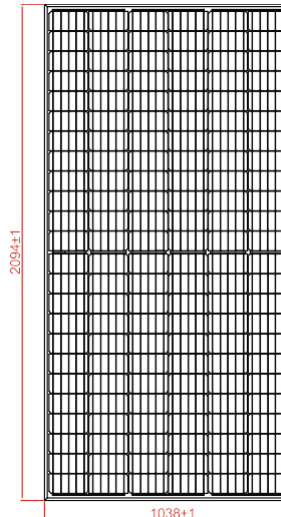
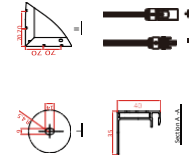
Solar Glass: 3.2mm, tempered, low iron,
 high transparency solar safety
 glass with anti-reflective coating.

Encapsulation: EVA

Backsheet: White

Frame: Extruded, anodized aluminium

Junction Box: IP68 rated, 3 diodes,
 1100mm cable,
 MC4 standard connectors



Electrical Data @ STC

Design	Pmax(Wp)	Vmp	Imp	Voc	Isc	Eff
144 Cell	445 Wp	41.3V	10.77A	49.1V	11.53A	20.50%

Electrical Data @ NOCT

Design	Pmax(wp)	Vmp	Imp	Voc	Isc
144 Cell	332.3Wp	38.5V	8.64A	46V	9.33A

STC - Irradiance 1000 W/m², cell temp @ 25°C

NOCT - Irradiance 800 W/m², 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)
Tempcoefficient of Pmax	-0.36%/°C
Tempcoefficient 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