

#### **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:

- 3800 pa wind & 5400 pa mechanical loads
- High temperature operation
- Easy module replacement
- Shipping within Southern Africa
- Quality control and traceability by PVflow ®

#### Certifications

- TÜV SÜD & Rheinland, ISO 9001:2015
- CSA, IEC 61730 and IEC 61215
- State of the ART Swiss production facility
- Earth leakage tested to 3600V DC
- Double Electro-Luminescence (EL) tested
- Built for export to Europe



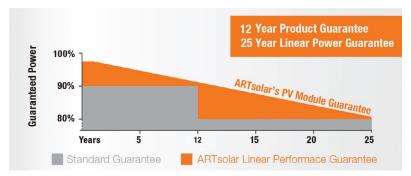




100 Wp Si-Poly

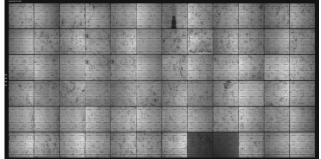
#### **Locally Guaranteed**

- 12 year construction warranty
- 25 year linear power output 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 eve.

















#### **South African Modules**

Local content compliant Supports local job creation South African Owned Locally Guaranteed

# **MODULE DESIGN**

# **Module Dimensions and Weights**

**150Wp** - 1485 x 668 x 35mm (12kg) **100Wp** - 1034 x 669 x 35mm (9kg)

#### **SPECIFICATIONS**

**Solar Cells:** Cut cell, polycrystalline **Solar Glass:** 3.2mm, tempered, low iron,

high transparancy solar safety

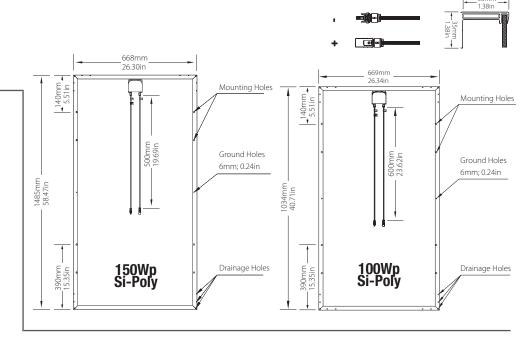
glass.

**Encapsulation:** EVA **Backsheet:** White

Frame: Extruded, anodized aluminium Junction Box: IP65 rated, 600 / 500mm

cable, MC4 standard

connectors



| Electrical Data @ STC |          |       |       |       |       |       | Electrical Data @ NOCT |          |        |       |        |       |
|-----------------------|----------|-------|-------|-------|-------|-------|------------------------|----------|--------|-------|--------|-------|
| Design                | Pmax(Wp) | Vmp   | lmp   | Voc   | Isc   | Eff   | Design                 | Pmax(wp) | Vmp    | lmp   | Voc    | Isc   |
| 36 Cell               | 150 Wp   | 18.4V | 8.15A | 22.2V | 8.42A | 15.1% | 36 Cell                | 112 Wp   | 17.30V | 6.45A | 20.60V | 6.82A |
| 36 Cell               | 100 Wp   | 18.4V | 5.44A | 22.2V | 5.78A | 14.5% | 36 Cell                | 74 Wp    | 17.00V | 4.36A | 20.70V | 4.65A |

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

NOCT - Irradiace 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         |             | Maximum Ratings        |                |  |  |
|-----------------------------|-------------|------------------------|----------------|--|--|
| Nominal Operating Cell Temp | 45°C (±2°C) | Operational Temp       | -40 to +85°C   |  |  |
| Temp coefficient of Pmax    | -0.38%/°C   | Max system Voltage     | 1000V DC (IEC) |  |  |
| Temp coefficient of Voc     | -0.31%/°C   | Max Series Fuse Rating | 12A            |  |  |
| Temp coefficient of Isc     | 0.03%/°C    | Mechanical Load        | 5400pa         |  |  |







