
Appendix A – PV Panel Specification

Yingli 120W/12V

Module characteristics

- 36 polycrystalline silicon solar cells (156mm x 156mm) which are connected in series and capable of charging 12V batteries
- Heavy duty anodised aluminium frame provides high wind resistance and convenient mounting access
- Cells are laminated between high transmissivity, low iron, 3mm tempered glass and a sheet of TPT material and finally two sheets of EVA to prevent moisture entering the module
- Installation holes for standard bracket systems are provided
- Diodes are installed to prevent “hot spot” effect
- Waterproof versatile junction box provides flexibility of connections
- Modules are manufactured in accordance with IEC 61215, and come with 25 years limited output guarantee

Electrical characteristics

Typical maximum power (Wp) 120

Open circuit voltage (Voc) 22.0

Optimum operating voltage (Vmp) 17.5

Optimum operating current (Imp) 7.43

Short circuit current (Isc) 8.44

Standard parameters

Information below represents the output of typical modules in 12V configuration.
*This data is based on measurements made in accordance with Standard Test Conditions (STC)

1000W/m², AM 1.5, cell temperature 25°C

Normal temperature 467 23 C

Current temperature coefficient (Isc) +0.10%/°C

Voltage temperature coefficient (Voc) -0.38%/°C

Power temperature coefficient (Wp) +0.47%/°C

Edge grounding $\leq 1\text{ohm}$

Wind resistance 2400Pa

Maximum system voltage 1000V

Mechanical characteristics

Weight 16.0 kg

Size of module (mm) 1470 x 680 x 50
