

Features

- High performance, high efficiency monocrystalline silicon cells
- 3.2mm tempered glass and rigid anodised aluminium alloy frame gives exceptional strength
- Voltage optimised for use in 12V systems and charging 12V batteries
- 10W \pm 5% power output
- CE certification
- Blocking or bypass diode fitted, as required



Example Applications

- Keeping your car, caravan, boat or motorbike battery topped up
- Powering an electric fence or pond fountain
- Low-power lighting
- Powering a ventilation fan - e.g. for a shed or garage
- Charging a bait boat



Specific Attributes



Low-iron tempered anti-reflecting glass, Back Surface Field (BSF) silicon nitride anti-reflective cell coating increase conversion efficiency.

AKT Solar logo assures of quality.

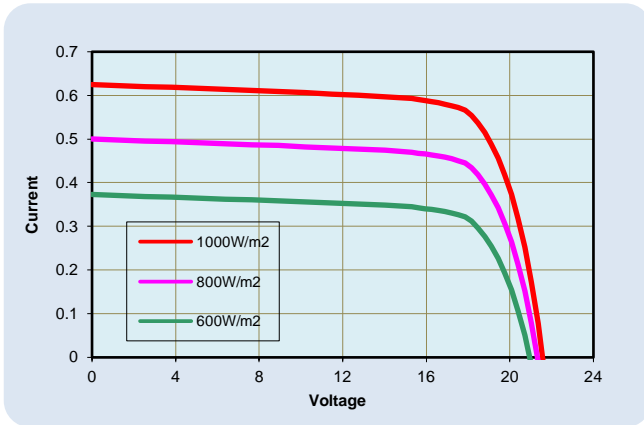


Rigid anodised aluminium frame and toughened glass prevent damage due to frost, snow, hail and high winds.

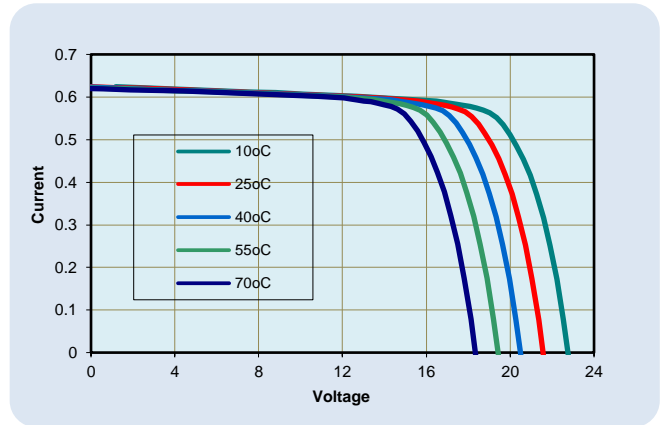
Thermal isolation between laminate and waterproof junction box minimises electrical power losses.

Electrical Output under Different Light Intensity and Temperature

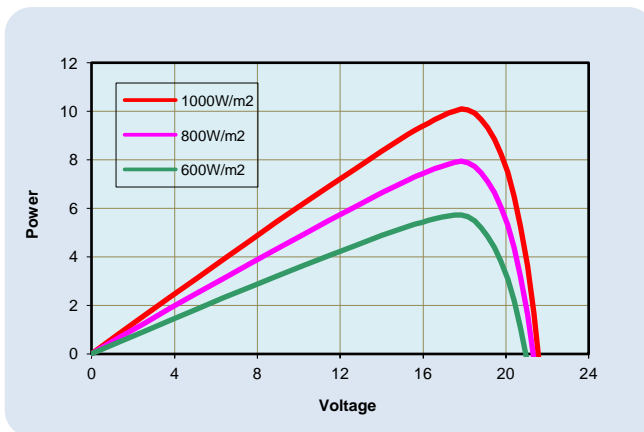
Current-Voltage Relationship, variable light intensity



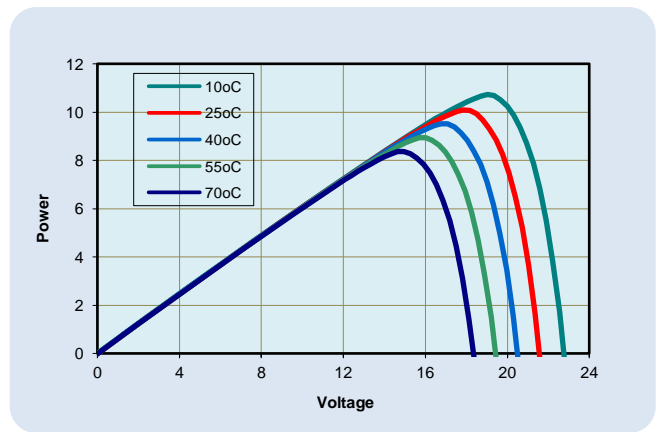
Current-Voltage Relationship, variable temperature



Power-Voltage Relationship, variable light intensity



Power-Voltage Relationship, variable temperature



Electrical Characteristics under STC¹

Open-circuit voltage (Voc)	Av 21.0V, sd 0.5
Voltage at maximum power (Vmp)	Av 17.5V, sd 0.4
Short-circuit current (Isc)	Av 0.62, sd 0.04
Optimum operating current (Imp)	Av 0.57A, sd 0.02
Maximum power at STC (Wp)	10W ±5%
Operating temperature	-40°C to +85°C
Maximum system voltage	1000V dc
Power tolerance	±5%

¹ Standard Temperature and Conditions: 25°C, AM 1.5, 1000W/m²

Temperature Dependence of Isc, Voc and Wp

Nominal operating cell temperature (NOCT)	47°C ±2°C
Temperature coefficient of Wp	-0.5±0.05%/°C
Temperature coefficient of Voc	-0.155±0.01%/°C
Temperature coefficient of Isc	0.06±0.01%/°C

Mechanical Characteristics and Dimensions

Solar cells	Monocrystalline
No. of cells	36 (4x9)
Dimensions	330x300x25mm
Weight	1.8kg
Front glass	3.2mm tempered glass
Frame	Anodised aluminium alloy

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