

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
- Grounding holes for easy installation
- 20W \pm 5% power output
- CE certification

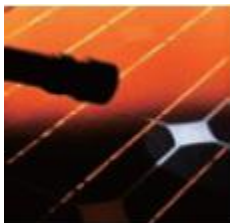


Example Applications

- Keeping car, van, caravan, shed, motorbike or boat batteries topped up
- Powering pond fountains
- Powering small appliances such as room fans and lighting
- Charging 12V batteries (best with a 5A charge controller)



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.

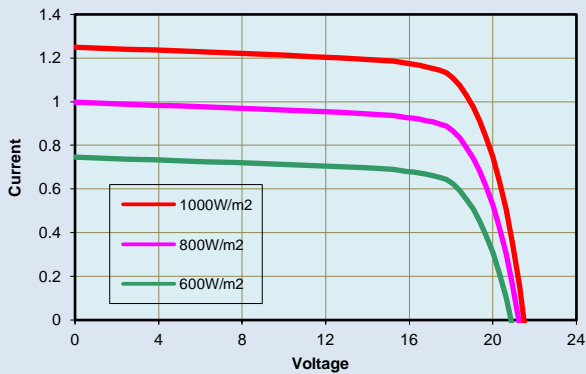


Rigid anodised aluminium frame and toughened glass prevent damage due to frost, snow, hail and high winds.

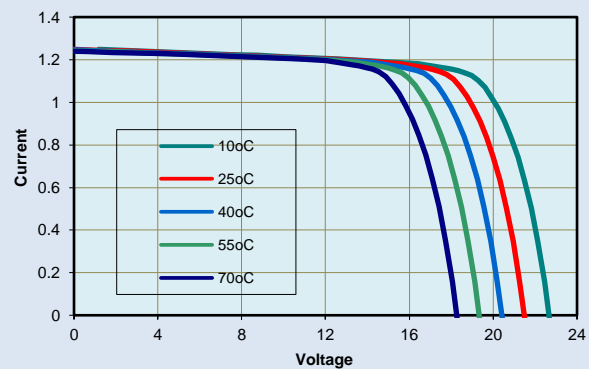
Thermal isolation between laminate and waterproof junction box minimises electrical power losses.

Electrical Output under Varying Light Intensity and Temperature

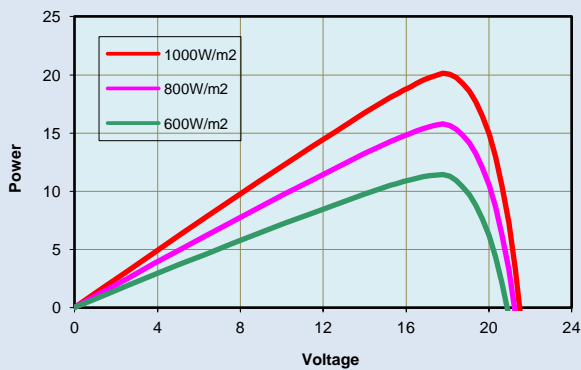
Current-Voltage Relationship, variable light intensity



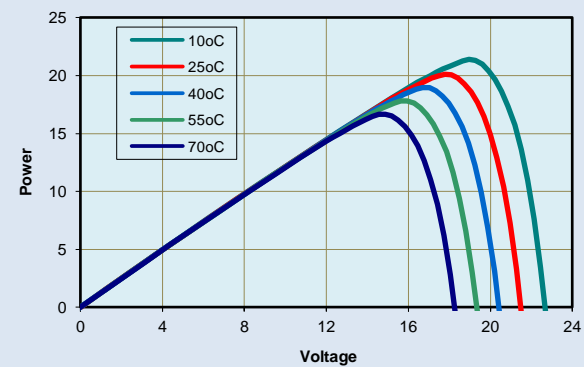
Current-Voltage Relationship, variable temperature



Power-Voltage Relationship, variable light intensity



Power-Voltage Relationship, variable temperature



Electrical Characteristics under STC¹

Open-circuit voltage (Voc)	Av 21.0V, sd 0.3
Voltage at maximum power (Vmp)	Av 17.5V, sd 0.2
Short-circuit current (Isc)	Av 1.23, sd 0.05
Optimum operating current (Imp)	Av 1.14A, sd 0.03
Maximum power at STC (Wp)	20W ±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	-0.078±0.01%/°C
Temperature coefficient of Isc	0.06±0.01%/°C

Mechanical Characteristics and Dimensions

Solar cells	Monocrystalline
No. of cells	36 (4×9)
Dimensions	330x550x25mm
Weight	3.7kg
Front glass	3.2mm tempered glass
Frame	Anodised aluminium alloy

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