

Features

- High performance, high efficiency monocrystalline silicon cells
- 3.2mm tempered glass and rigid anodised aluminium alloy frame gives exceptional strength
- Grounding holes for easy installation
- Voltage optimised for use in 12V systems
- Guaranteed 25 year power-output (90% of power after 10 years of use, 80% of power after 25 years of use)
- 140W \pm 5% power output
- CE certification
- Waterproof for permanent outdoor use



Example Applications

- Powering a 12V system
- Powering a fridge, television, laptop and lighting
- Perfect for caravans, boats and off-grid houses

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.

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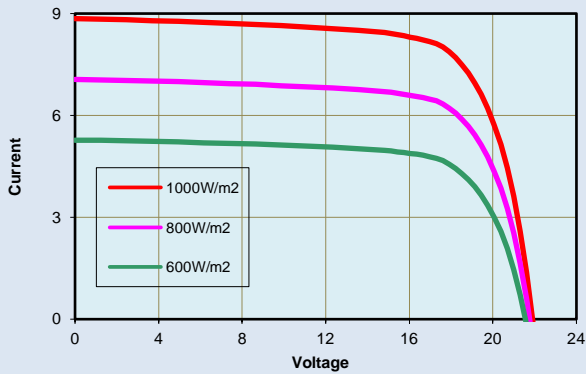
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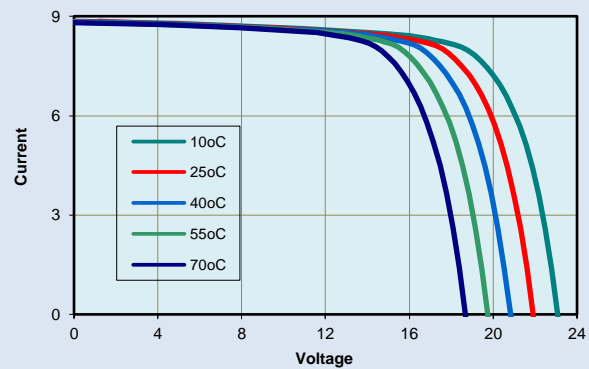
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Electrical Output under Different Light Intensity and Temperature

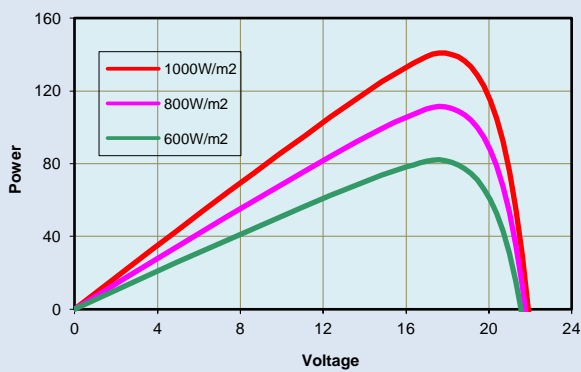
Current-Voltage Relationship, variable light intensity



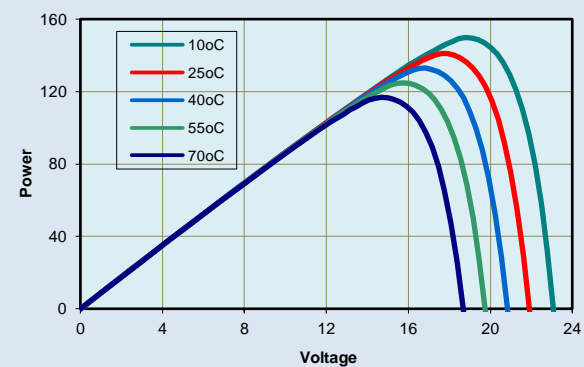
Current-Voltage Relationship, variable temperature



Power-Voltage Relationship, variable light intensity



Power-Voltage Relationship, variable temperature



Electrical Characteristics under STC¹

Open-circuit voltage (Voc)	Av 21.6V, sd 0.3
Voltage at maximum power (Vmp)	Av 17.5V, sd 0.2
Short-circuit current (Isc)	Av 8.8A, sd 0.2
Current at maximum power (Imp)	Av 8.0A, sd 0.2
Maximum power at STC (Wp)	140W ±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 125x125mm
No. of cells	72 (12x3+12x3)
Dimensions	1468x808x35mm
Weight	13.9kg
Front glass	3.2mm tempered glass
Frame	Anodised aluminium alloy

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