SP-250PH Photovoltaic Module

Sollatek's range of solar panels

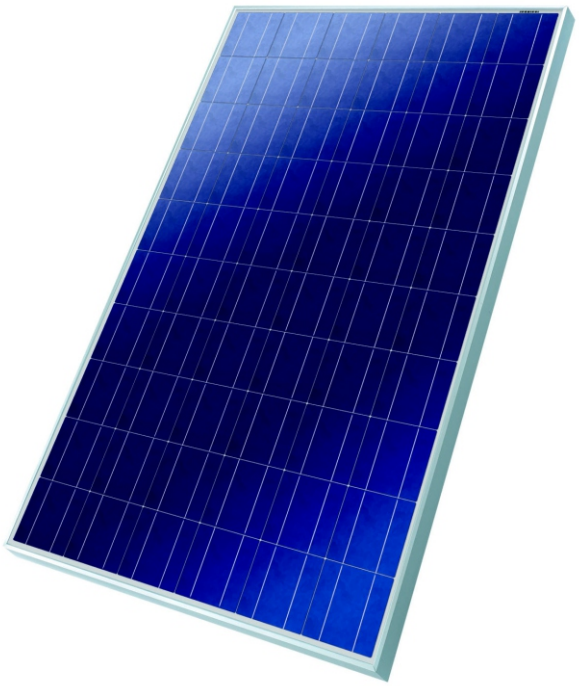
Model

SP-250PH

Introduction

Solar cells directly convert sunlight into electricity by means of the photovoltaic effect. This occurs when photons are absorbed by a solar cell which generates a voltage across it terminals. Cells are connected in series within a solar module to provide sufficient voltage to operate a system. Modules can be connected in series and parallel to increase the system power. This solid state process provides a clean, silent, non-polluting and reliable source of electrical energy.

Sollatek's high efficiency solar modules are constructed for 60 polycrystalline cells. The cells are individually tested and matched for optimum performance before being built into the protective module structure. A Tedlar® base is used and ethylene vinyl acetate encapsulant. High transmission tempered glass protects the cells from the front and a high strength polymer sheet at the rear. A reinforced aluminium frame completes the laminate structure which is fully sealed against moisture and protected from environmental and mechanical damage.



SP-250PH

Features

- High efficiency modules
- 60 cells in series
- Reinforced anodised aluminium frame
- Protected via by-pass diodes
- Universal junction box
- Pre-drilled frame for easy mounting
- Product warranty : 5 years*
- Efficiency warranty : 25 years*
- Quality assurance : ESTI (61215), TÜV (Safety Class II)

Applications

- Telecommunications
- Rural electrification
- Grid connected large scale system
- Power plants
- Commercial buildings
- Cathodic protection
- Water pumping

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Specifications

Cell	Polycrystalline silicon solar cells
No. of cells & connections	60
Module dimensions	1640 x 992 x 50 mm
Weight	19.6kg

Characteristics

Open circuit voltage (V_{OC})	37.8V
Optimum operating voltage (V_{MP})	31.8V (minimum)
Short circuit current (I_{SC})	8.25A
Optimum operating current(I_{MP})	7.86A (minimum)
Power at STC (P_M)	250Wp (minimum)

Limits

Operating temperature	-40°C - +85°C
Maximum system voltage	1000V_{DC}

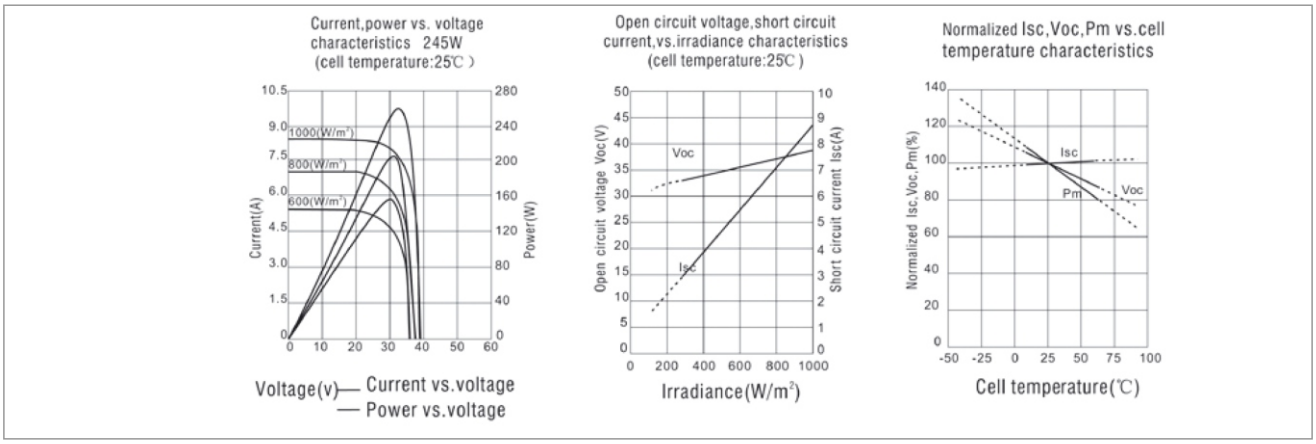
Temperature & Coefficients

NOCT	46°C +/-2°C
Current temperature coefficient	0.06 +/- 0.01%
Voltage temperature coefficient	-152mV/°C
Power temperature coefficient	-0.47% / °C

Output

Type of output terminal	Junction box
Cable	LAPP (4.0mm^2)
Lengths	120mm (-) & 800mm (+)
Connection	Plug type IV

STC: Irradiance 1000W/m^2. Module temperature 25°C, AM=1.5
NOCT: Nominal Operation Cell Temperature



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