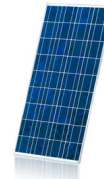


Type of solar cell

[Solar cell](#) to change the intensity of sunlight into electrical energy. Solar cell produces current used



to charge the [battery](#) .

[Solar cell](#) consists of photovoltaic, which generate electricity from light intensity, the intensity of light decreases (cloudy, rainy, cloudy) the electric current generated will also decrease.

By adding a [solar cell](#) (expand) means adding [solar power](#) conversion. Generally a solar cell with a certain size provide specific results as well.

For example the size of a cm xB cm electric generating DC (Direct Current) for x Watts per hour / hours.

Efficiency of Power Changes

Endurance

Cost Usage

Remarks

Mono

Very Good

Very Good

Good

Use Purpose Area

Daily

Poly

Good

Very Good

Very Good

Suitable for mass production in the future

Amorphous

Good Enough

Good Enough

Types of Solar Cell: Solar Cells Type

Written by Administrator

Friday, 31 July 2009 19:32 - Last Updated Thursday, 23 November 2017 14:05

Good

Works well in fluorescent lighting & commercial device (calculator)

Compound (GaAs)

Very Good

Very Good

Weight and Fragile

Use in outer space

Good Enough

Types of [solar cells](#) :

Polycrystalline (Poly-crystalline)

Is the solar cell having a random crystalline structure. Compound type requires a larger surface area compared with other types monokristal to generate the same power, but can produce electricity at the time was cloudy.

Monokristal (Mono-crystalline)

Panel is the most efficient, producing widespread power of the most high unity. Have efficiencies up to 15%.

The downside of this type of panel is not functioning properly in place which is less sun light (shaded), the efficiency would drop drastically in cloudy weather.

Amorphous

Amorphous silicon (a-Si) has been used as a photovoltaic solar cell material for calculators for some time. Although they are lower performance than traditional c-Si solar cells, this is not important in calculators, which use very low power. a-Si's ability to be easily deposited during construction more than makes up for any downsides.

More recently, improvements in a-Si construction techniques have made them more attractive for large-area solar cell use as well. Here their lower inherent efficiency is made up, at least partially, by their thinness - higher efficiencies can be reached by stacking several thin-film cells on top of each other, each one tuned to work well at a specific frequency of light. This approach is not applicable to c-Si cells, which are thick as a result of their construction technique and are therefore largely opaque, blocking light from reaching other layers in a stack.

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The main advantage of a-Si in large scale production is not efficiency, but cost. a-Si cells use approximately 1% of the silicon needed for typical c-Si cells, and the cost of the silicon is by far the largest factor in cell cost. However, the higher costs of manufacture due to the multi-layer construction have, to date, make a-Si unattractive except in roles where their thinness or flexibility are an advantage.