

Volume of single crystal and polycrystalline solar panels





Overview

What is the difference between monocrystalline and polycrystalline solar panels?

Both monocrystalline and polycrystalline solar panels consist of silicon-based photovoltaic (PV) cells. The difference is in the form of silicon within the PV cell. As their names suggest, monocrystalline PV cells are made using a single silicon crystal, whereas polycrystalline PV cells contain many silicon crystals.

What is a polycrystalline solar panel?

Polycrystalline solar panels are also made from silicon. However, instead of using a single silicon crystal, manufacturers melt many silicon fragments together to form wafers for the panel. Polycrystalline solar cells are also called "multi-crystalline" or many-crystal silicon.

How are polycrystalline solar panels made?

Polycrystalline solar panels are made from many fragments of disorganised silicon crystals. Crystalline silicon ingots are formed by cooling molten silicon. The silicon naturally forms a fragmented, disordered structure as it cools. The formed silicon ingots are then cut into thin wafers that are used to make polycrystalline solar panels.

Why are monocrystalline solar panels more expensive?

Conversely, to produce monocrystalline panels, the solidification of silicon must be controlled very carefully, which is a more complex process—this makes single-crystal solar cells more expensive. When comparing the price of both panel types, remember that monocrystalline solar panels have a higher cost.



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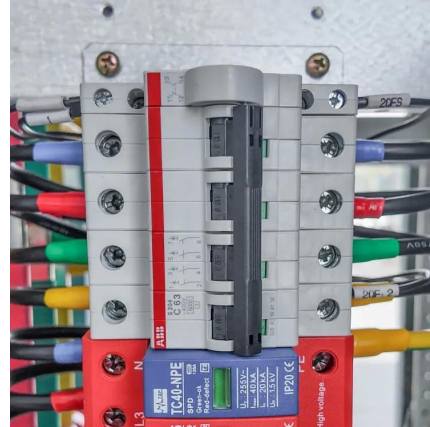
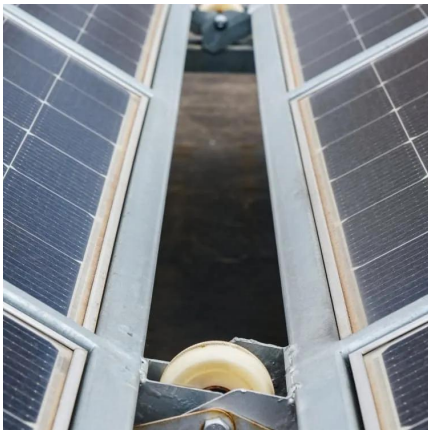
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