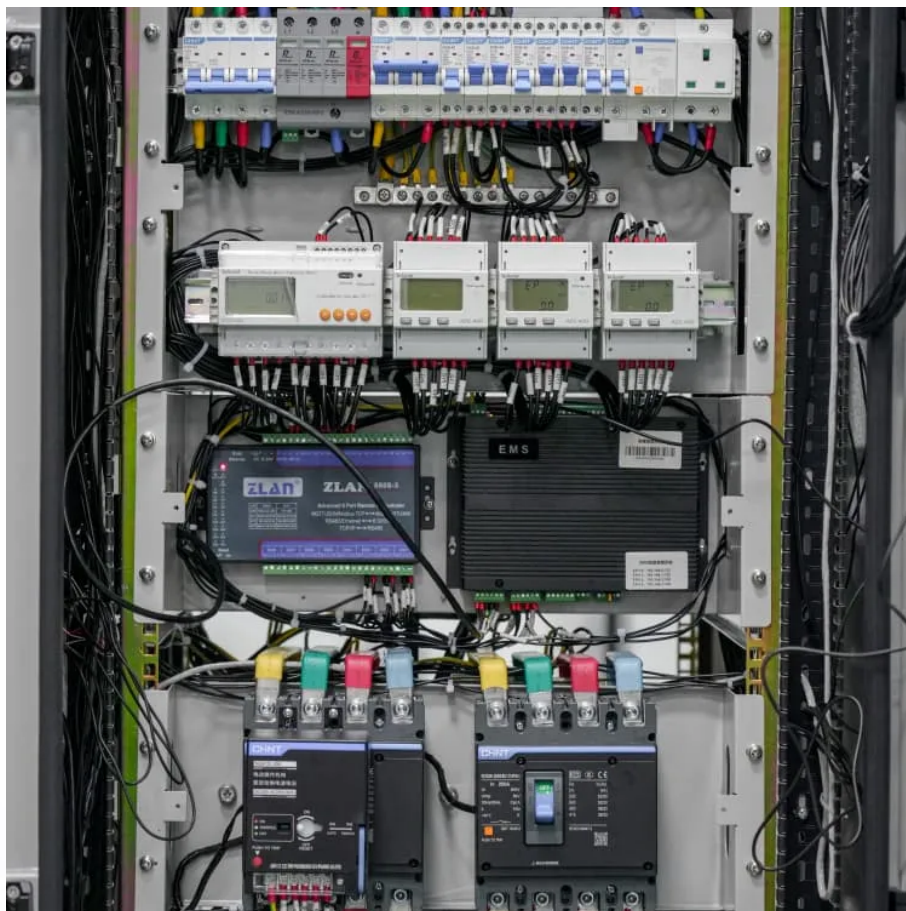


The cells behind the solar panel





Overview

What are photovoltaic (PV) solar cells?

In this article, we'll look at photovoltaic (PV) solar cells, or solar cells, which are electronic devices that generate electricity when exposed to photons or particles of light. This conversion is called the photovoltaic effect. We'll explain the science of silicon solar cells, which comprise most solar panels.

How do solar panels work?

When exposed to sunlight, each cell generates a small amount of direct current (DC) electricity. But when thousands of these cells are assembled into a solar panel, their collective power becomes enough to run anything from your home appliances to large-scale industries and power grids.

Why are photovoltaic cells important?

You've likely seen photovoltaic cells in action, whether it's solar panels on rooftops, large solar farms stretching across fields, or even smaller panels on calculators, traffic signals and street lights. These cells are the heart of every solar energy system.

How do solar cells generate electricity?

The conversion of sunlight, made up of particles called photons, into electrical energy by a solar cell is called the "photovoltaic effect" - hence why we refer to solar cells as "photovoltaic", or PV for short. Solar PV systems generate electricity by absorbing sunlight and using that light energy to create an electrical current.



The cells behind the solar panel



Solar Cells: How Solar Panels Work

Idea for the Classroom Introduce students to the science behind solar cells and how they work. Then, using the infographic, ask students to answer the questions below: What is a simplified, general ...

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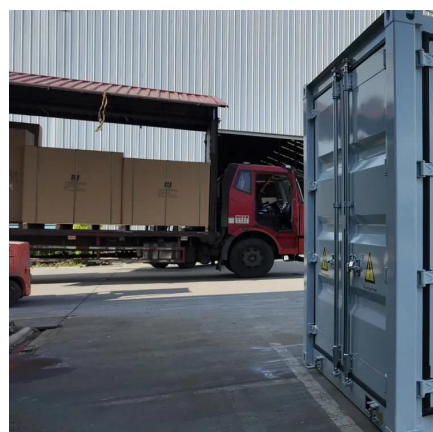
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How do solar cells work?

What are solar cells? A solar cell is an electronic device that catches sunlight and turns it directly into electricity. It's about the size of an adult's palm, octagonal in shape, and colored bluish black. Solar cells are ...

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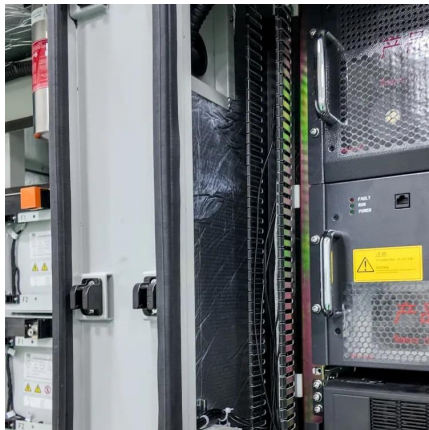
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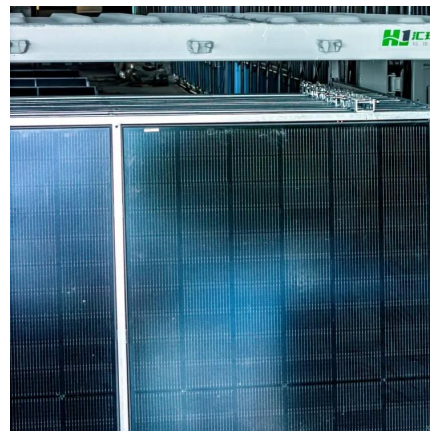
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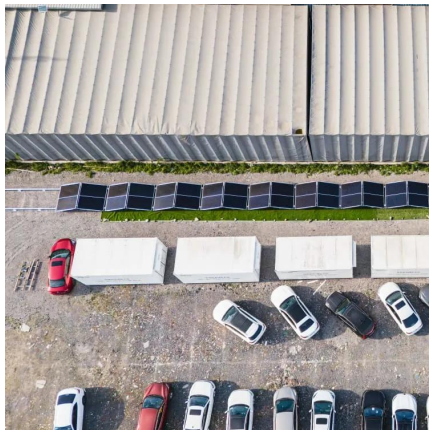




The Science Behind Photovoltaic Cells , How Solar Cells Work

Discover how photovoltaic cells work, their science, structure, and benefits. Learn about solar electricity and the photovoltaic effect in detail.

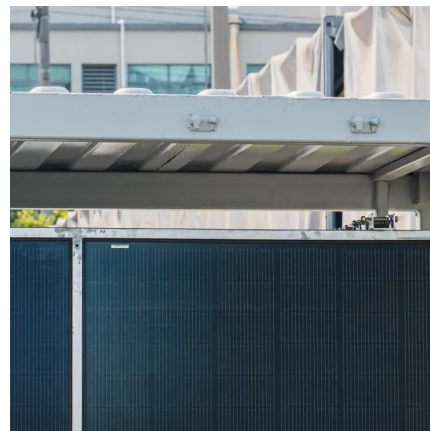
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[Solar cell , Definition, Working Principle, & Development](#)

Solar cell, any device that directly converts the energy of light into electrical energy through the photovoltaic effect. The majority of solar cells are fabricated from silicon--with ...

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