

Main equipment of wind power generation system





Overview

What are the major parts of a wind turbine?

Significant turbine parts are the generator and the turbine shaft which transfers the energy from the wind to the generator through a gearbox. The gearbox is an essential part of the wind turbine; it's on the cable car.

What are the different types of wind turbine generators?

There are many wind turbine generator types based on how they are designed and functions. However, in this guide, we will mainly look into the Horizontal-Axis and Vertical-Axis wind turbines. Horizontal-Axis Wind Turbines (HAWTs) are the most common type of wind turbine - the ones that all of us would have seen the most.

What is wind energy used for?

Wind energy is also used to provide power in remote or off-grid locations. Small wind turbines can supply electricity to rural communities, islands, and remote industrial sites. Wind energy can be integrated with other renewable energy sources, such as solar power, to create hybrid systems.

What are the components of a wind turbine generator?

Another important component of a wind turbine generator is drive-train and gearbox. The drivetrain is the mechanical system that transfers the rotational energy from the rotor to the generator while gearbox regulates the speed, ensuring the generator receives the correct rotation rate to produce electricity efficiently.



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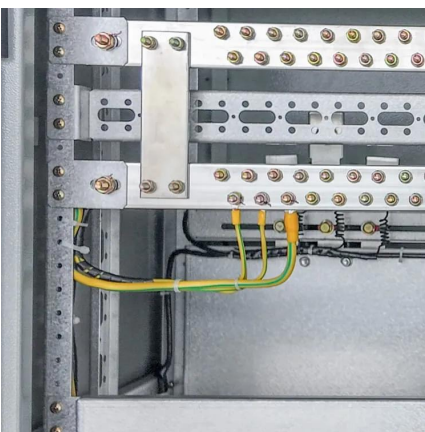


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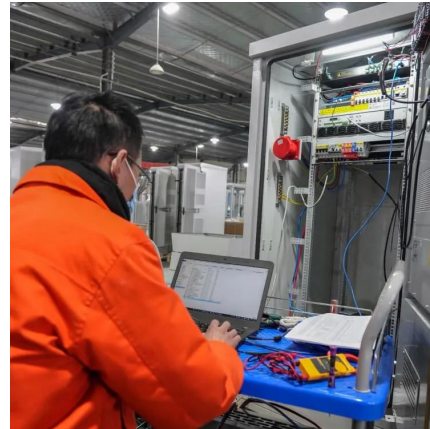
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What Components Comprise a Wind Power System?

Hybrid System Combinations Many electricity generation systems use more than one kind of generator, to provide a smoother supply of power. Many systems pair one or more wind ...



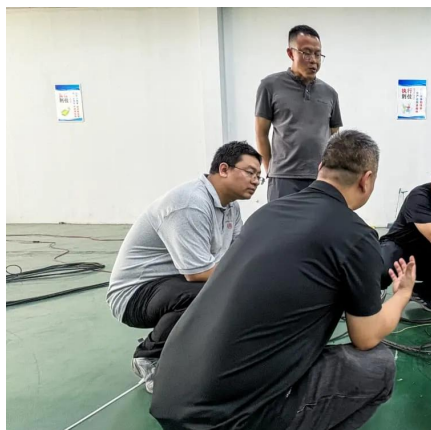
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