

SolarTech Power Solutions

Base station wind power supply equipment composition

PUSUNG-R (Fit for 19 inch cabinet)



Overview

The paper proposes a novel planning approach for optimal sizing of standalone photovoltaic-wind-diesel-battery power supply for mobile telephony base stations. The approach is based on integration of a compr.

How to design a wind power plant?

One of the criteria, for example, is the design of the wind turbine according to which the wind power plants can be divided into plants with horizontal or vertical axis of rotation. Another aspect can be the method of swivelling the wind turbine or blades—accordingly, the wind power plants are divided into active or passive pitch control.

How much voltage can a wind power plant supply?

In our case, the wind power plants are connected to 22 kV external grid, i.e., the phase voltage is about 12.7 kV; the maximum allowable increase in voltage is then about 254 V. As shown graphically in Fig. 2.49, the voltage change ΔU copies the change in power supplied.

How LV/MV transformer station is located in a wind power plant?

Entire equipment (Fig. 2.18) was placed in the base of the wind power plant tube, consisting of a simple control system, the compensation device and power outlet to a LV/MV transformer station through a low-voltage cable; the LV/MV transformer station is usually positioned close to the wind power plant and MV overhead lines.

How are wind power plants classified?

As already mentioned in the previous chapter, wind power plants can be classified according to various aspects and criteria. One of the criteria, for example, is the design of the wind turbine according to which the wind power plants can be divided into plants with horizontal or vertical axis of rotation.

How to control a small wind power plant?

The control systems are relatively simple and can be divided by the type of

operating the small wind power plant into the system for a autonomous mode (off-grid mode) without connection to the external grid and system for parallel generator cooperation with the external grid into which the generator output is brought.

How a low-capacity wind power plant works?

In such a system, the voltage is first rectified and then adjusted to the desired frequency. With regard to the simple design and the resulting operational reliability, the low-capacity power wind power plants commonly use induction machines.

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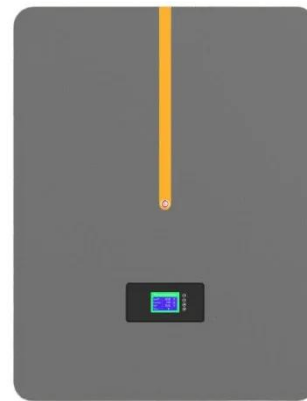


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