

Mobile base station backup power supply processing





Overview

Why do cellular base stations have backup batteries?

[.] Cellular base stations (BSs) are equipped with backup batteries to obtain the uninterruptible power supply (UPS) and maintain the power supply reliability. While maintaining the reliability, the backup batteries of 5G BSs have some spare capacity over time due to the traffic-sensitive characteristic of 5G BS electricity load.

What is 5G base station?

5G base stations (BSs), which are the essential parts of the 5G network, are important user-side flexible resources in demand response (DR) for electric power system. However, a 5G BS has little and difference dispatchable potential, how to make massive 5G BSs participate in DR conveniently is an urgent problem to be solved.

Can BS backup batteries be used as flexibility resources for power systems?

Therefore, the spare capacity is dispatchable and can be used as flexibility resources for power systems. This paper evaluates the dispatchable capacity of the BS backup batteries in distribution networks and illustrates how it can be utilized in power systems.

Why do cellular communication base stations need a battery alloc?

Current cellular communication base stations are facing serious problems due to the mismatch between the power outage situations and the backup battery supporting abilities. In this paper, we proposed BatAlloc, a battery allocation framework to address this issue.



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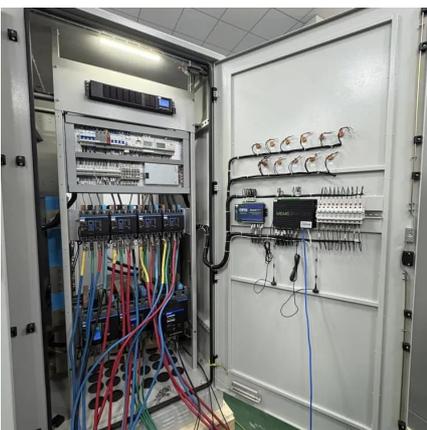
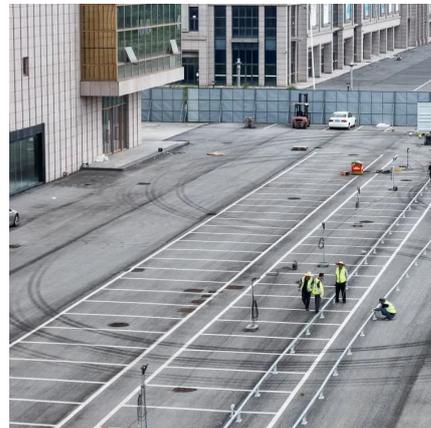


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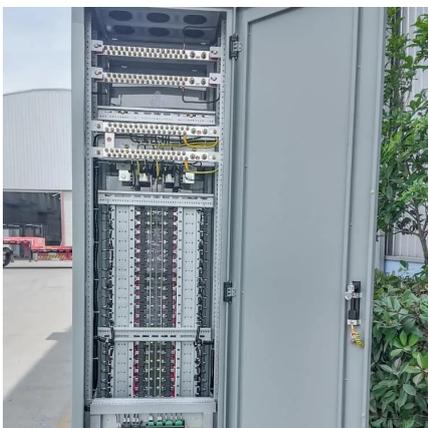
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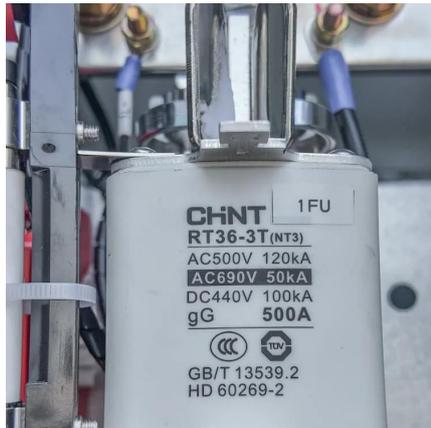
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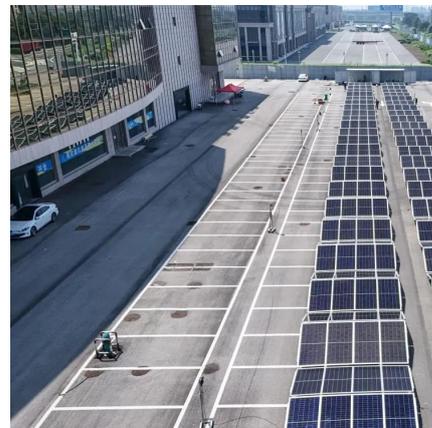
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