

Power load of 5G base station single-mode communication equipment





Overview

Does a 5G base station have a power consumption model?

This paper proposes two modified power consumption models that would accurately depict the power consumption for a 5G base station in a standalone network and a novel routing protocol for distributing the load on the base stations in the case of intercellular communication.

What is a 5G base station energy storage device?

During main power failures, the energy storage device provides emergency power for the communication equipment. A set of 5G base station main communication equipment is generally composed of a baseband BBU unit and multiple RF AAU units. Equation 1 serves as the base station load model:.

What equipment is used in a 5G base station?

AAU is the most energy-consuming equipment in 5G base stations, accounting for up to 90% of their total energy consumption. Auxiliary equipment includes power supply equipment, monitoring and lighting equipment. The power supply equipment manages the distribution and conversion of electrical energy among equipment within the 5G base station.

What is the load of a 5G base station?

The load of a 5G base station primarily consists of communication equipment and auxiliary components. The communication equipment mainly includes Active Antenna Unit (AAU) and Base Band Unit (BBU). AAU is a combination of radio frequency unit and antenna array of 5G base station.



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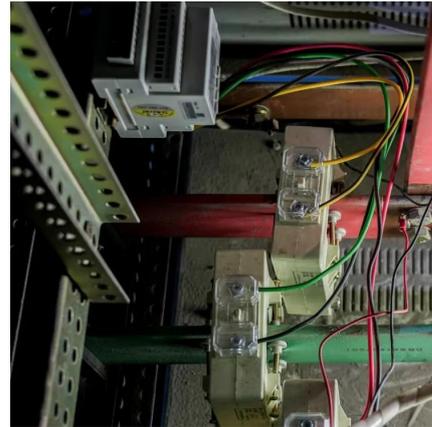


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Abstract This paper proposes an electric load demand model of the 5th generation (5G) base station (BS) in a distribution system based on data flow analysis.



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Electric Load Profile of 5G Base Station in Distribution ...

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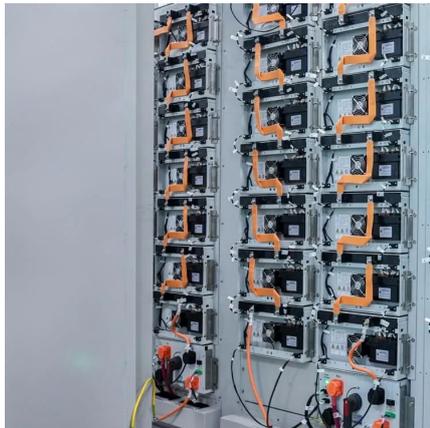




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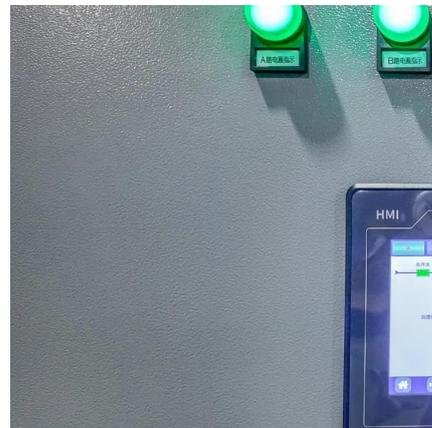
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