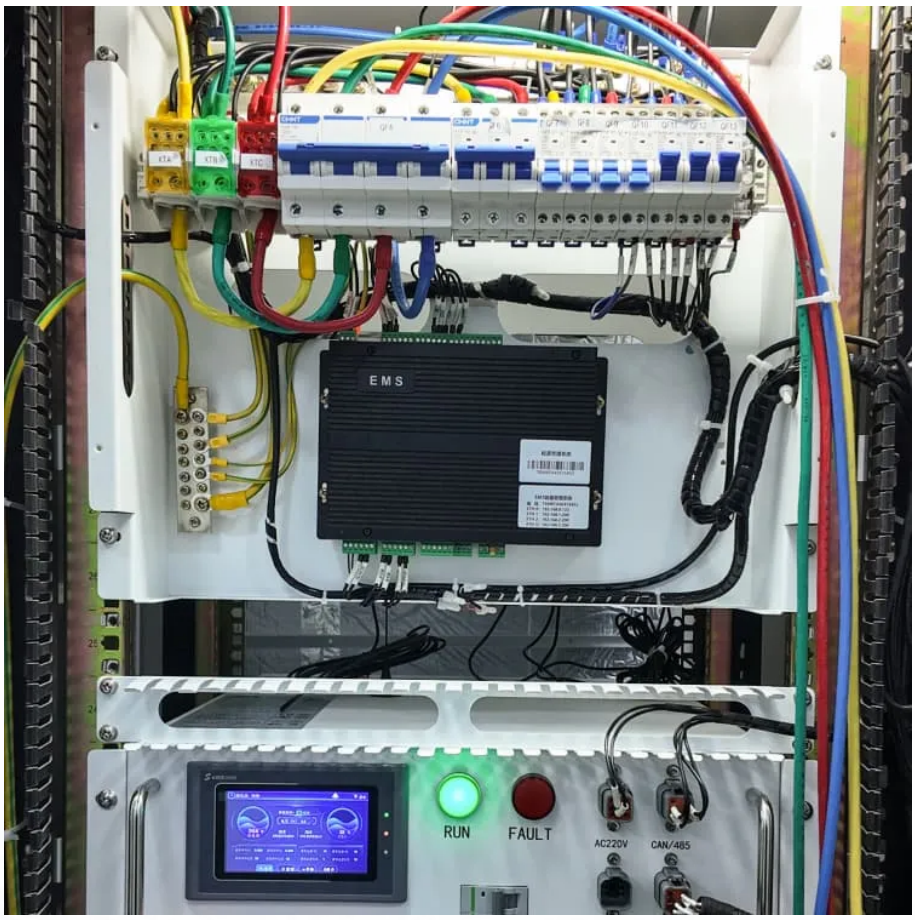
WALMER ENERGY

Outdoor base station energy-saving design requirements



Overview

How can a base station save energy?

There are two main methods of base station energy saving, including hardware and software.

What is the energy-saving technology of base stations?

This technical report focuses on energy-saving technology of base stations. Some energy saving technologies since 4G era will be explained in details, while artificial intelligence and big data technology will be introduced in response to the requirement of an intelligent and self-adaptive energy saving solution.

What are the standardized energy-saving metrics for a base station?

(1) Energy-saving reward: after choosing a shallower sleep strategy for a base station, the system may save more energy if a deeper sleep mode can be chosen, and in this paper, the standardized energy-saving metrics are defined as (18) R i e = E S M = 0 E S M = i E S M = 0 E S M = 3.

How is the energy consumption of a base station calculated?

The energy consumption of the Base Station under test shall be calculated during the whole test period. The total daily energy consumption of the Base Station will be the sum of weighted energy consumption for each traffic level i.e. low, medium and busy-hour traffic.

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