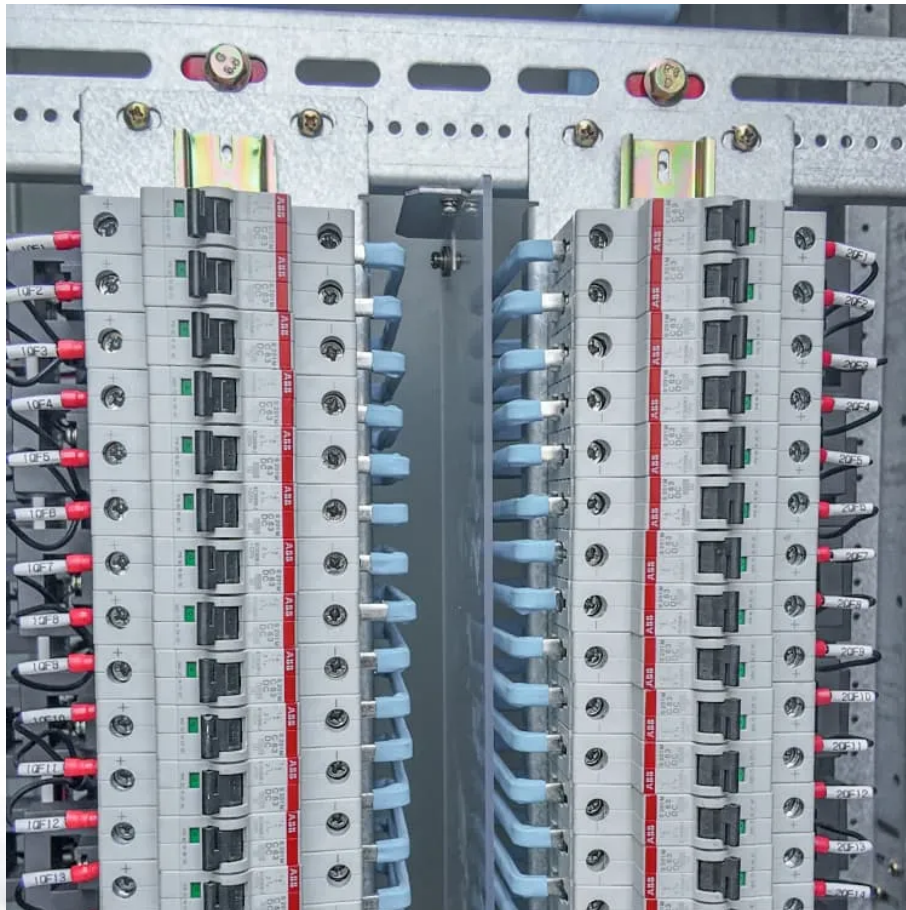


High-Temperature Resistant Photovoltaic Containers for Mountainous Areas





Overview

Can PV plants grow in mountainous regions?

In particular, the rapid development of PV plants in mountainous regions, rather than in deserts and gobis, is primarily driven by the limited availability of land resources. However, compared to the extensive research on PV environmental impacts in deserts and gobis, studies focusing on mountainous regions remain scarce.

Do mountain PV plants affect local climatic environment?

The research provided substantial evidence of the influence of mountain PV plants on local climatic environment, characterized by increased AT and decreased RH compared to reference sites, with this effect gradually increasing over time.

Does daytime cooling benefit electricity generation in mountainous PV plants?

Most desert PV plants exhibited daytime warming during hot seasons, and the daytime AT variations were insignificant in grassland PV plant , , . Daytime cooling in hot seasons may uniquely benefit electricity generation in mountainous PV plants of this study.

Do PV stations affect mountainous environments?

Currently, the modeling analysis of the environmental impacts of PV systems mainly focuses on the macro-scale, while studies on the local scale primarily rely on field observations. However, there is very little observation and quantitative research on the impact of PV station on mountainous environments.



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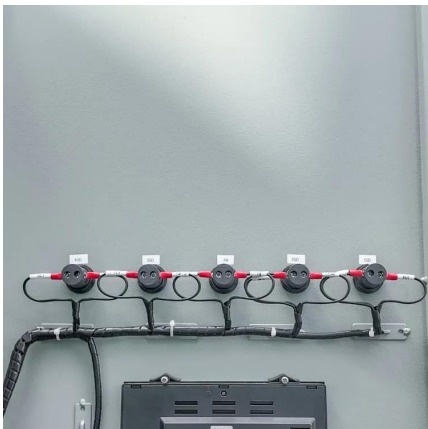
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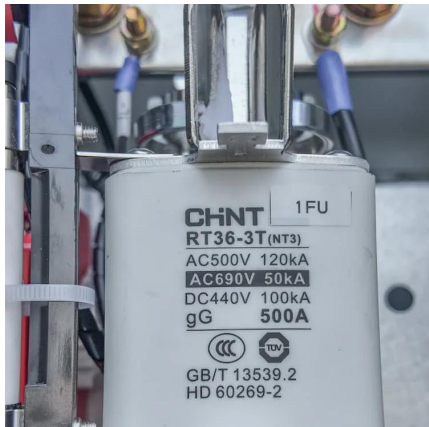
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