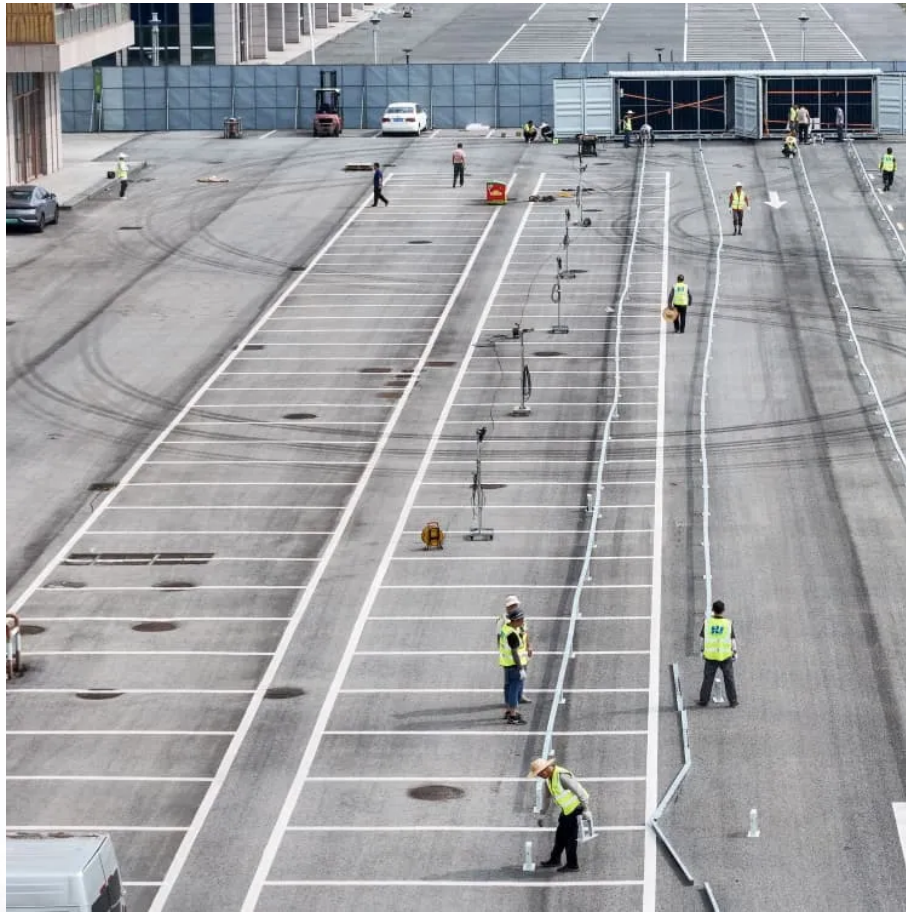


# **A liquid-cooled heat dissipation energy storage device**





## Overview

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The liquid cooling system supports high-temperature liquid supply at 40–55°C, paired with high-efficiency variable-frequency compressors, resulting in lower energy consumption under the same cooling conditions and further reducing overall operational costs. Is liquid cooling heat dissipation structure suitable for vehicle mounted energy storage batteries?

The thermal balance of the liquid cooling method is poor. Therefore, in response to these defects, the optimization design of the liquid cooling heat dissipation structure of vehicle mounted energy storage batteries is studied.

What is battery liquid cooling heat dissipation structure?

The battery liquid cooling heat dissipation structure uses liquid, which carries away the heat generated by the battery through circulating flow, thereby achieving heat dissipation effect (Yi et al., 2022).

How to improve heat dissipation efficiency of battery liquid cooling thermal system?

To improve the heat dissipation efficiency of the battery liquid cooling thermal system (BLCS), numerous scholars have conducted a lot of research on the coolant runner structure of the liquid-cooled plate. The related studies can be categorized into two types, i.e., conventional runner structure and bionic runner structure.

Can NSGA-II optimize the liquid cooling heat dissipation structure of vehicle mounted energy storage batteries?

Therefore, in response to these defects, the optimization design of the liquid cooling heat dissipation structure of vehicle mounted energy storage batteries is studied. An optimized design of the liquid cooling structure of vehicle mounted energy storage batteries based on NSGA-II is proposed.



## A liquid-cooled heat dissipation energy storage device



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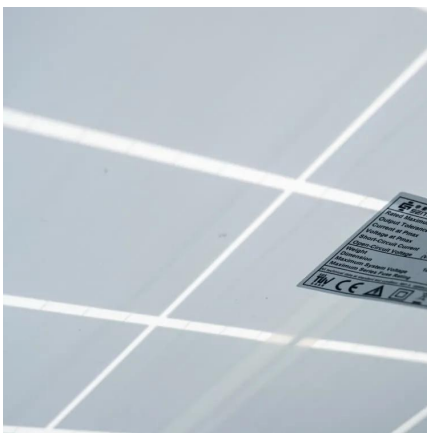
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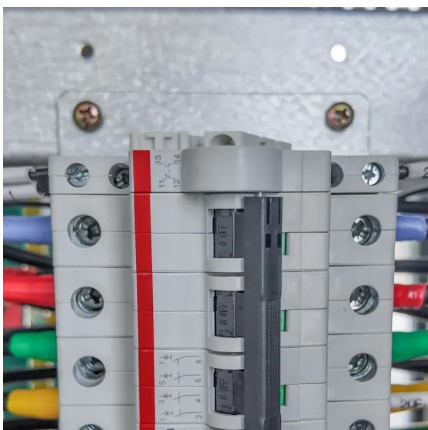


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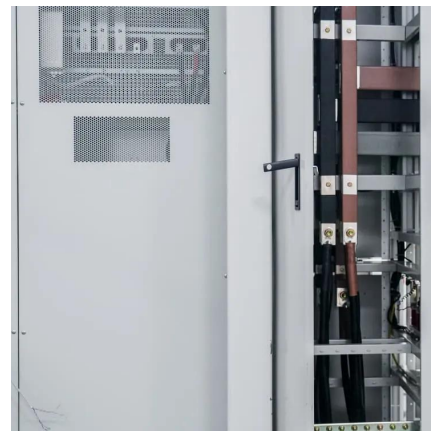


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Liquid cooling technology, through the efficient thermal conductivity of liquids, can quickly remove the heat generated inside energy storage devices, thereby keeping the equipment operating ...



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