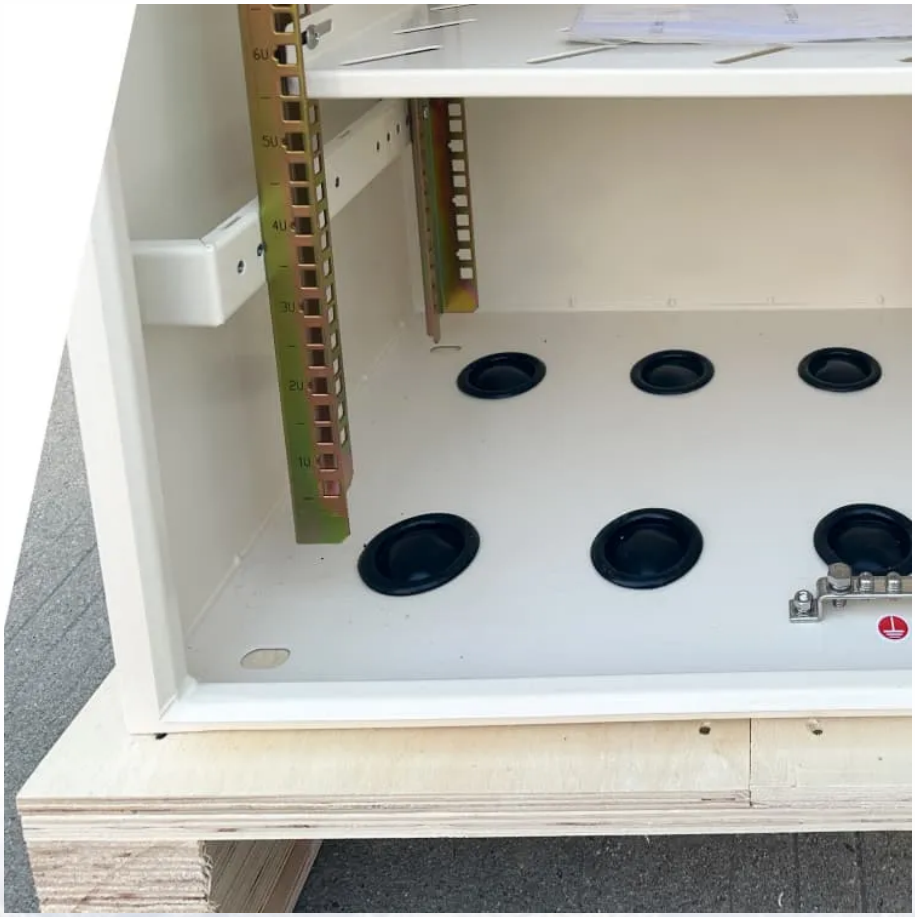
ŁOTWA SYSTEM

Intelligent temperature control solar container lithium battery pack



Overview

Battery thermal management system is one of the most essential parts for the battery pack in electric vehicles. In this paper, a new battery thermal management system is developed through the c.

What is battery thermal management system?

Battery thermal management system is one of the most essential parts for the battery pack in electric vehicles. In this paper, a new battery thermal management system is developed through the combination of the battery pack structure optimization and the cooling strategy design.

Can a battery thermal management system save energy?

Finally, the ANSYS simulation results show that the proposed battery thermal management system can save 76.4% of energy compared to the conventional cooling system, while maintaining the average temperature of cells around the optimal operating temperature. And the temperature non-uniformity is reduced from 1.5 °C to around 0.6 °C. 1. Introduction.

Does thermal management protect lithium-ion batteries from thermal deterioration?

Lei et al. proposed a compact and efficient battery-thermal-management design to attack thermal deterioration of lithium-ion battery at low and high temperatures, which effectively protected battery from low-temperature degradation by 39.5% and 62.5% as compared with those without any thermal-management supports.

How a new battery thermal management system is developed?

In this paper, a new battery thermal management system is developed through the combination of the battery pack structure optimization and the cooling strategy design. First, a new battery pack equipped with the hollow spoiler prisms based on the aligned battery pack is designed to improve the cooling performance.

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