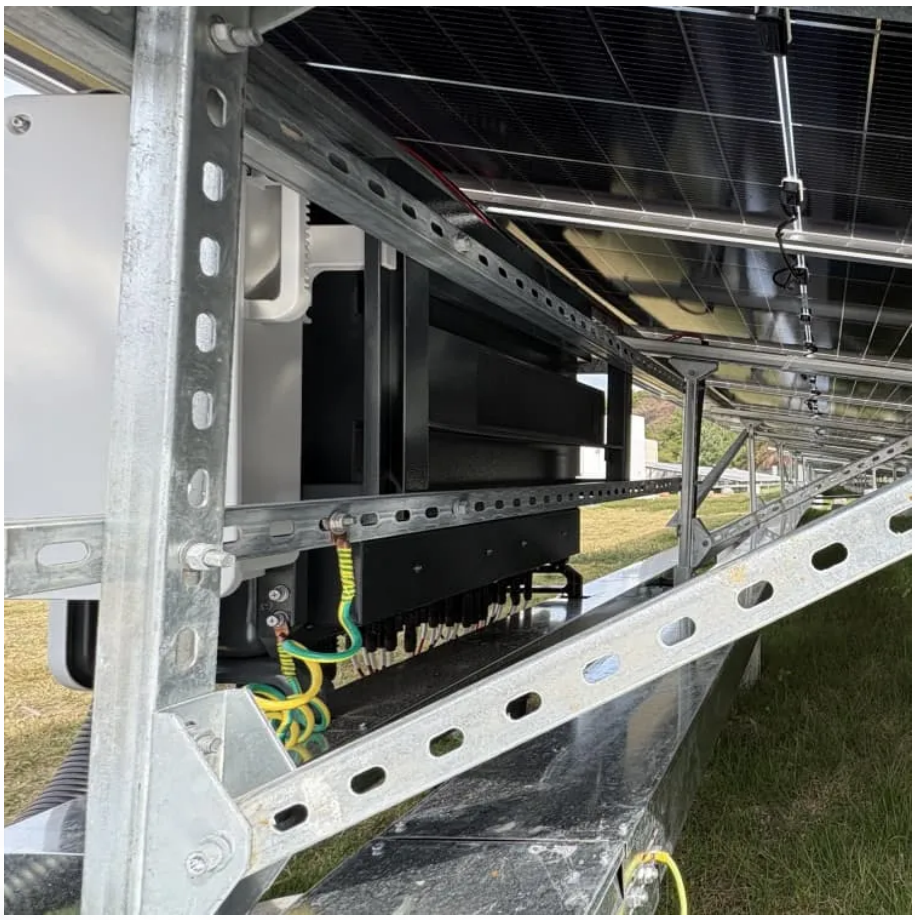
FTMRS SOLAR

Battery System Integration PACK



Overview

What is a battery pack?

The battery pack is the final shape of the battery system inside the electric vehicle. In a series connection, each positive terminal of the battery is connected to the negative terminal of the next one. This configuration will add battery voltages, resulting in a higher system voltage. But the battery capacity remains the same.

Can a battery pack be integrated into an electric vehicle model?

To tackle this overlooked challenge, our study introduces a comprehensive battery pack model and an advanced Battery Management System (BMS). We then integrate these components into an electric vehicle model.

What is battery pack design for electric vehicles?

Battery pack design for electric vehicles that reduces fabrication time and weight compared to conventional packs. The pack has a horizontal fixing rod inserted into a tube between the battery modules to hold them in place instead of using long bolts. The rod prevents vertical movement.

What is battery management system (BMS)?

Battery Management System This study proposes to create a battery pack and BMS integrated system for the electric vehicle model. The BMS consists of an SOC estimator, a thermal controller, and a battery pack equalization algorithm, presented in Figure 8. First, the battery pack sends the measured temperature, voltage, and current to the BMS.

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Integrated Battery System Development

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