Disassembly of the new generation blade battery system

What is BYD blade battery?
The BYD blade battery is an innovative structural design of lithium iron phosphate battery,where the battery cells are designed to be thin and long like blades,hence the name "blade battery". It adopts a CTP (Cell-to-Pack) module-free solution,which changes the design of the battery pack by elimi

How are blade batteries arranged?
The blade batteries are arranged with honeycomb aluminum plates,with two high-strength aluminum plates attached to the top and bottom,allowing for higher space utilization and the ability to fit more battery cells in the same space compared to traditional modules.

How do you disassemble a battery pack?
To conduct the operations,destructive disassemblyhas been a prevailing practice. The disassembly phase of the battery pack includes cutting cable ties,cutting cooling pipes,and cutting bonded battery modules and the battery bottom cover for separation .

What are the design parameters of BYD blade battery?
Based on the disassembly information provided, the approximate design parameters for the blade battery are as follows: The BYD blade battery is an innovative structural design of lithium iron phosphate battery, where the battery cells are designed to be thin and long like blades, hence the name "blade battery".

What is a BYD blade?
The BYD Blade is another cell to pack design. The key to this design are the very long cells that stretch across the width of the pack.

Can EV Lib disassembly be automated?
To address this issue, Hellmuth et al. introduced a method for the automated assessment of EV LIB disassembly. The method comprises two evaluation categories, where the first pertains to the feasibility of automating disassembly operations, and the second focuses on determining the necessity of automation.

Wegener et al. [27] designed a novel HRC-based disassembly framework designed for the systematic disassembly of an Audi Q5 hybrid battery. The disassembly ...

In order to recycle batteries in large quan-tities, these processes must be automated. This means the to-pic of automated dismantling of battery systems is high on the European automotive industry"s list of priorities. The industry is ...

Blade Battery System - Part 2 Battery Management System. In my previous article "Disassembly of Blade

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Battery System Part 1 - Electrical Design", I shared the basic ...

"The Blade Battery - Unsheathed to Safeguard the World", Wang Chuanfu, BYD Chairman and President, said that the Blade Battery reflects BYD"s determination to resolve issues in battery safety while also redefining safety standards for the entire industry. BYD"S NEW BLADE BATTERY SET TO REDEFINE EV SAFETY STANDARDS Cell

Based on the disassembly information provided, the approximate design parameters for the blade battery are as follows: Nominal voltage: 3.2V. Nominal capacity: ...

There is cell temperature detection, and the NTC is attached to the battery cell and implemented through a reused communication connector, not on the PCB"s backside. We ...

One common feature is that BYD"s battery needs a longer busbar to connect it back. In the structured design, from the electrical point of view, the two ends of the whole battery need to be connected, so we can see that two very wide positive and negative busbars connect the charged ends of the integrated battery to the BDU power distribution ...

Main issues are the automated disassembly of electric vehicle battery systems that can adapt to different variants, and the generation of data records for disassembly optimization using AI ...

Understanding the DeWalt FlexVolt Battery. Before diving into the disassembly process, it"s crucial to have a solid grasp of what the DeWalt FlexVolt battery is. This revolutionary battery system is designed to automatically adjust voltage, offering 60V, 20V, or 12V options depending on the tool. Its high-capacity lithium-ion design makes it ...

Due to the global trend of energy saving and emission reduction and the rapid development of new energy vehicles, the global lithium battery market is experiencing rapid growth in demand, mainly ...

Contrasting the disassembly cost of battery packs from different OEMs, cost-intensive design features are identified, and lessons can be learned from more cost-efficient ...

When browsing and organizing information online, I came across a disassembled blade battery system that nicely organizes some interesting parts. Of course, the part that I"m most interested in personally is the electronics and electrical systems. Today, I"ll share the content of this part first, and then will decompose the structure ...

Various studies show that electrification, integrated into a circular economy, is crucial to reach sustainable mobility solutions. In this context, the circular use of electric vehicle batteries (EVBs) is particularly relevant because of the resource intensity during manufacturing. After reaching the end-of-life phase, EVBs can be

subjected to various circular economy ...

Contrasting the disassembly cost of battery packs from different OEMs, cost-intensive design features are identified, and lessons can be learned from more cost-efficient pack designs. Based on the obtained results, this study suggests alternative design options and enables OEMs to develop future battery packs optimised for disassembly. This ...

As a new battery product, blade battery has gradually improved its competitiveness at home and even abroad. How do its raw materials, cells, modules, management system and safety design stand out ...

One common feature is that BYD"s battery needs a longer busbar to connect it back. In the structured design, from the electrical point of view, the two ends of the whole battery need to be connected, so we can see that two very wide ...

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