

What is the main structure of a battery pack box?

The main structure of the battery pack box includes the upper-pressure cover,the upper-pressure rod,the lower box body of the battery pack,the inner frame,the lifting lug,the battery module,the single battery,and other structures.

How does a battery pack work?

The power battery pack of the target vehicle is connected with the structural bolts of the vehicle chassis through the lifting lugs welded on the lower box of the battery pack. The battery pack box of the target vehicle is arranged under the chassis, below the floor of the passenger compartment, disassembled from the electric vehicle.

Is a battery box a good structural improvement scheme?

Finally,based on the static and dynamic analysis results of the battery box,the weak points and unreasonable points are improved. The results show that the modified model has a good improvement effect and has basically reached the established design requirements,which verifies the rationalityof the structural improvement scheme.

What is a power battery pack box?

The power battery pack box is the core component of the BEV. The power battery pack provides energy for the whole vehicle,and the battery module is protected by the outer casing. The battery pack is generally fixed at the bottom of the car,below the passenger compartment,by means of bolt connections.

How to improve the dynamic performance of a battery box?

By analyzing the modal characteristics and the harmonious response to vibration characteristics of the battery box, the dynamic performance of the battery box has been comprehensively mastered. Finally, based on the static and dynamic analysis results of the battery box, the weak points and unreasonable points are improved.

How does a rigid column affect a battery pack box?

In the analysis of the vehicle side impact test,the rigid column invades the electric vehicle,which deforms the sill beamand the side of the battery pack box. Figure 10 shows the distribution of the stress nephogram of the battery pack box during the collision.

Disclosed are a battery compartment, a new energy automobile battery swap station and a battery storage and transfer method. The battery compartment comprises: a battery rack (10), a ...

The battery pack is installed at the bottom of the car chassis between the longitudinal beams of the frame, below the floor of the compartment; this paper refers to the ...

In this course, you will learn the rationale and benefits of home and grid energy storage systems. Discover the role of battery storage; a comparison of the various technologies for energy ...

[1] Zhao H. W., Chen X. K. and L Y 2009 Topology optimization of power battery packs for electric vehicles Journal of Jilin University 39 846-850 Google Scholar [2] Yang S. J. ...

In March 2019, Premier Li Keqiang clearly stated in Report on the Work of the Government that "We will work to speed up the growth of emerging industries and foster ...

Fig. 4 shows the schematic diagram of the air cooling of the energy storage battery thermal management system. The containerized storage battery compartment is ...

Worldwide, yearly China and the U.S.A. are the major two countries that produce the most CO₂ emissions from road transportation (Mustapa and Bekhet, ...

chassis structure of new energy vehicles, is to preserve the integrity of the battery pack and guarantee that it won't tilt or wobble while being driven. Hub motor electric vehicles generally ...

This study takes a new energy vehicle as the research object, establishing a three-dimensional model of the battery box based on CATIA software, importing it into ANSYS ...

566 G. Ruan et al. 2. Research status at home and abroad 2.1. Degree of research on the safety of new energy battery packs In the history of research on automobile power battery packs, ...

The utility model relates to a battery compartment technical field discloses a new energy automobile's battery compartment, including: the bin body comprises two first enclosing plates ...

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