

What is a blade battery?

The structure of the Blade Battery from cell to pack. At the center of the design of the Blade Battery is the cell geometry, which has a much lower aspect ratio compared with conventional cylindrical or prismatic cells. According to BYD's patents, the cell depth (Z axis) is 13.5 mm while the cell length (X axis) can range from 600 mm to 2500 mm.

What is a BYD blade pack?

The BYD Blade pack design is the first cell to pack design that encompasses everything this means. Not having a module and the overhead of a module is difficult to achieve. LFP cells make this design easier in some ways and this gives a new lease of life for LFP chemistry.

Where is the control system located in a blade pack?

In some of the Blade pack designs the control system is on the same plane and at the front of the cells. In other designs (left) the control system has been moved above the front of the pack. Most vehicles have some form of tunnel section as it works structurally with the front longitudinals and bulkhead.

What makes BYD a module-free battery pack?

With cell-to-pack technology, BYD designed the module-free battery pack using the Blade Cell. With cell-to-pack technology, BYD designed the module-free battery pack using the Blade Cell. The geometry of the Blade Cell is a key to the realization of the module-free battery pack.

How does a blade battery work?

Arranged in an array in one pack, each cell serves as a structural beam to help withstand the force. The aluminum honeycomb-like structure, with high-strength panels on upper and lower side of the pack, greatly enhances the rigidity in vertical direction. It is this revolutionary design that gives optimised strength to the Blade Battery.

What is a module-free blade battery?

The module-free Blade Battery, however, takes advantage of its blade cells to increase the volumetric energy density by up to 50%, suggesting a potential VCTPR and GCTPR of 62.4% and 84.5%, respectively. Although the Blade Battery shows a lot of promise, the blade geometry is not perfect.

What do you think of this battery pack? More info on the BYD Blade Cells here: <https://en.d/news/byds-new-blade-battery-set-to-redefine-ev-safety-standards/> Reactions: Daniel972

With cell-to-pack technology, BYD designed the module-free battery pack using the Blade Cell. The geometry of the Blade Cell is a key to the realization of the module ...

Blade Battery can support BYD-ATTO 3 to charge from 0% to 80% within 50 mins*, and enables BYD-ATTO 3 to accelerate from 0-100km/h within 7.3s. Launched by BYD in 2020, Blade ...

The Blade Battery refers to a single-cell battery with a length of 96 cm, a width of 9 cm and a height of 1.35 cm, which can be placed in an array and inserted into a battery pack like a blade. Compared with ternary lithium batteries and traditional lithium iron phosphate batteries, it holds notable advantages in its high safety, long range ...

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Blade Battery can support BYD-ATTO 3 to charge from 0% to 80% within 50 mins*, and enables BYD-ATTO 3 to accelerate from 0-100km/h within 7.3s. Launched by BYD in 2020, Blade Battery is the only battery that successfully passes the nail penetration test, the most rigorous way to test the thermal runaway of batteries.

Yes, I know some models have already achieved 150Wh/kg at pack level. So, Blade Battery 2.0 have achieved 210Wh/kg at "pack" level?? If so, this is one of the greatest milestones in battery industry, wow. Because many NMC battery has achieved around 200Wh/kg at pack level.(e.g. CATL Qilin Zeekr 001/009 using 400V system.)

With the module-free pack design, VCTPR and GCTPR can be enhanced to over 60% and 80%. In the previous article, we described the concept, specifications, pros and cons of the BYD Blade...

Blade Battery has a long battery life with over 5000 charge and discharge cycles. With a range of EV and PHEV to choose from, whether that's fully electric or hybrid options, new energy vehicles give drivers the option to reduce their carbon footprint in a way that suits their lifestyle.

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1. Equipment Overview. The EV Blade Battery Module PACK Assembly Line is an advanced, automated

