

# Tool Battery Arrangement





## Overview

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What are battery packs and Chargers for cordless power tools?

Our integrated circuits and reference designs help you create battery packs and chargers for cordless power tools with highly reliable battery management solutions (BMS) for monitoring, protecting, balancing and gauging. Modern battery packs for cordless power tools often require: Accurate voltage and current sensing.

What is a battery pack design?

The basic explanation is how the battery cells are physically connected in series and parallel to achieve the desired power of the pack. Check out this design guide, [Custom Battery Pack Design Guide - Manufacturing Capabilities](#). The physical layout of the configurations is typically designed to fit within a desired dimensional space.

How do I choose the right battery capacity for my cordless tool?

To choose the right battery capacity for your cordless tool, consider the power and run time needed for your projects. Battery capacity is measured in amp-hours (Ah), and a higher capacity means longer run times. Consider your project's size and intensity when selecting a battery with the appropriate capacity.

What makes a good battery pack layout?

For instance, in electric vehicles, the battery pack layout must be designed to handle high energy and power demands, while also considering factors such as weight distribution and space constraints. It's equally important to guarantee the pack is structurally sound, can handle vibration and shock, and has efficient thermal management.



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### [BU-302: Series and Parallel Battery Configurations](#)

Read about serial and parallel battery configurations. Connecting battery cells gains higher voltages or achieves improved current loading.

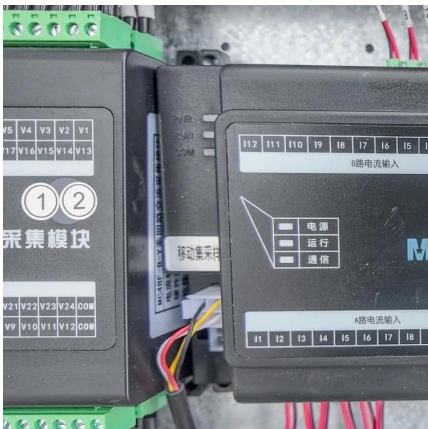
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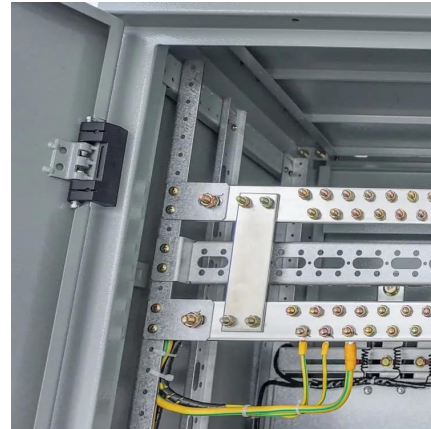
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## **BU-302: Series and Parallel Battery ...**

Read about serial and parallel battery configurations. Connecting battery cells gains higher voltages or achieves improved current loading.

### [Battery Pack Configurations - Linear, Multi-Row and Nested ...](#)

Explore custom battery pack configurations, from linear to nested designs. Learn how cell layouts impact performance, size, and your product's needs.



### [Understanding Power Tool Batteries](#)



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