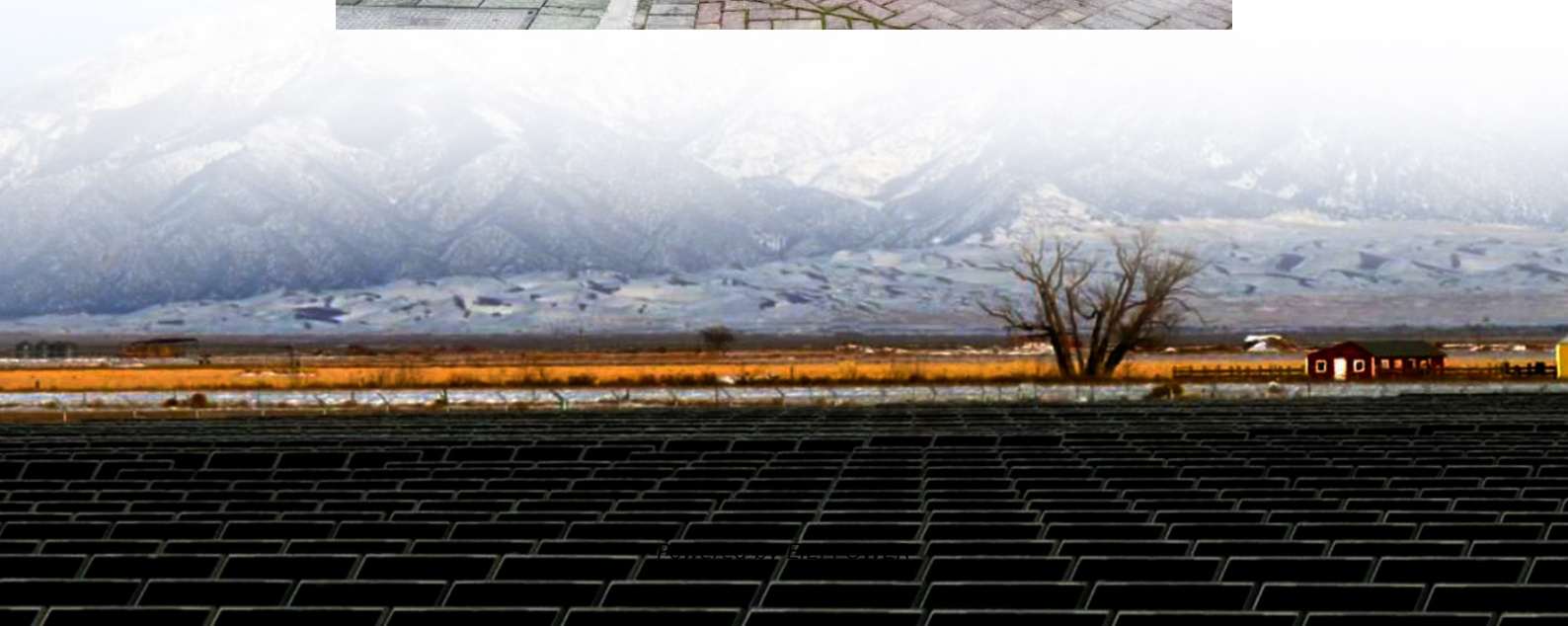


# Single-string battery BMS





## Overview

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What is a battery management system (BMS)?

The Battery Management System (BMS) is the hardware and software control unit of the battery pack. This is a critical component that measures cell voltages, temperatures, and battery pack current. It also detects isolation faults and controls the contactors and the thermal management system.

Why should you build a single-cell battery monitoring system (BMS)?

Better understanding and innovation in the field will help to increase safety, reliability and affordability of this crucial technology. Building a single-cell Battery Monitoring System (“BMS”) from scratch is a good way to learn about the cell-level performance and pin-point challenges under different battery use cases at this level.

Why is a single string battery set-up important?

A single weak or bad cell can exponentially lower the capacity of the entire battery pack. A properly engineered system can improve the overall reliability, but only when additional equipment and significant engineering time is invested. Whenever possible, a single string set-up should be considered.

How many BMS units can be used in a series?

In the above example, two BMS units, each capable of managing 8 cells in series must be used in conjunction with at least one contactor per string that automatically disconnects the string in the event of a failure, over-charge, over-discharge, or other fault.



## Single-string battery BMS

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The natural advantage of a string-type BESS topology is that battery strings are decoupled from one another, without interference. Therefore, when maintaining and repairing faulty strings, the ...

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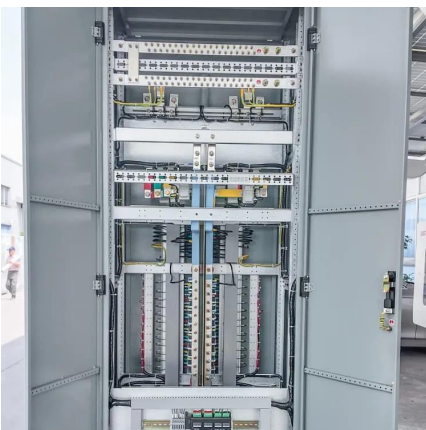


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The natural advantage of a string-type BESS topology is that battery strings are decoupled from one another, without interference. Therefore, when ...

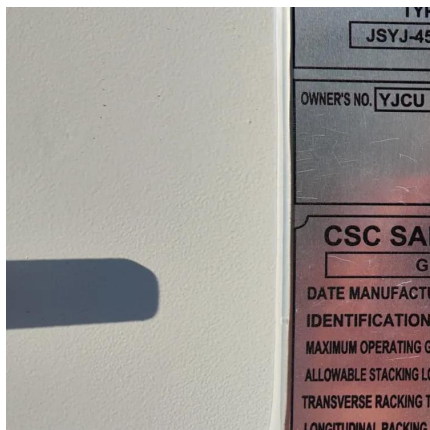


### [Battery management solution](#)

We provide protection IC solutions for single and multi-string batteries, supporting over-voltage, under-voltage, over-current, over-temperature, under-temperature and other state detection, ...

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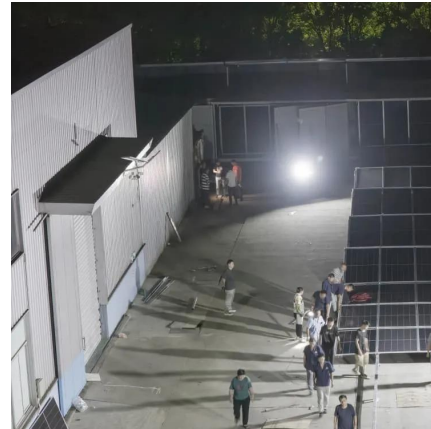
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