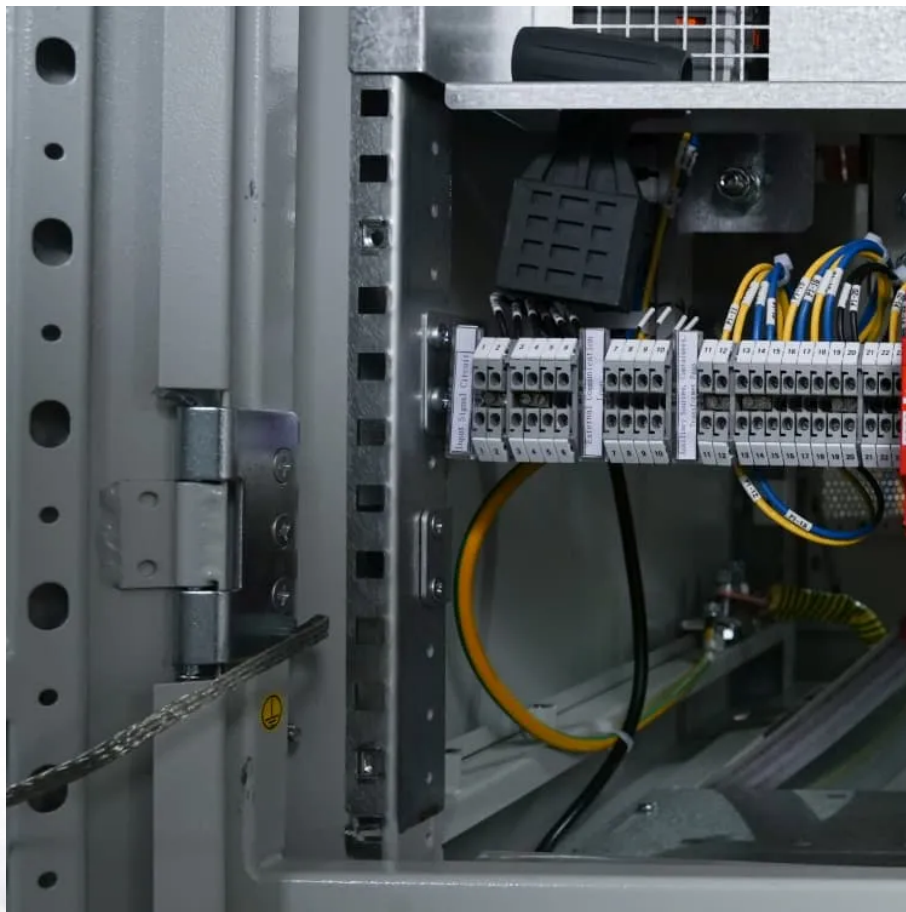


# How to measure the temperature of new energy battery cabinet





## Overview

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How to measure operating temperature in a battery?

Temperature sensors or thermocouples have also been placed inside the battery by researchers to measure operational temperatures. The operating temperature can be easily measured for coin and pouch cells using this method.

Can stacked power batteries measure temperature?

This technique pioneered the direct measurement of temperatures at multiple locations inside large, stacked power batteries. Experimental results indicated that even for batteries as thin as 7 mm, the internal temperature could differ from the surface temperature by  $>1.1$  °C.

Can a single point surface temperature measure a stacked battery?

Thus, a single-point surface temperature measurement cannot represent the overall thermal state of large-sized stacked batteries, making the measurement of temperatures at multiple points inside large power batteries essential for studying the battery's thermal performance and validating thermo-electrochemical models.

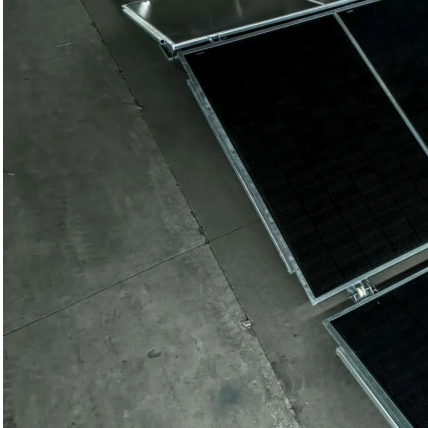
How does a thermocouple measure the internal temperature of a battery?

In measuring the internal temperature of batteries, the measuring junction of the thermocouple is placed inside the battery or in contact with the battery surface, while the reference junction is maintained at a known temperature or compensated for electronically.



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