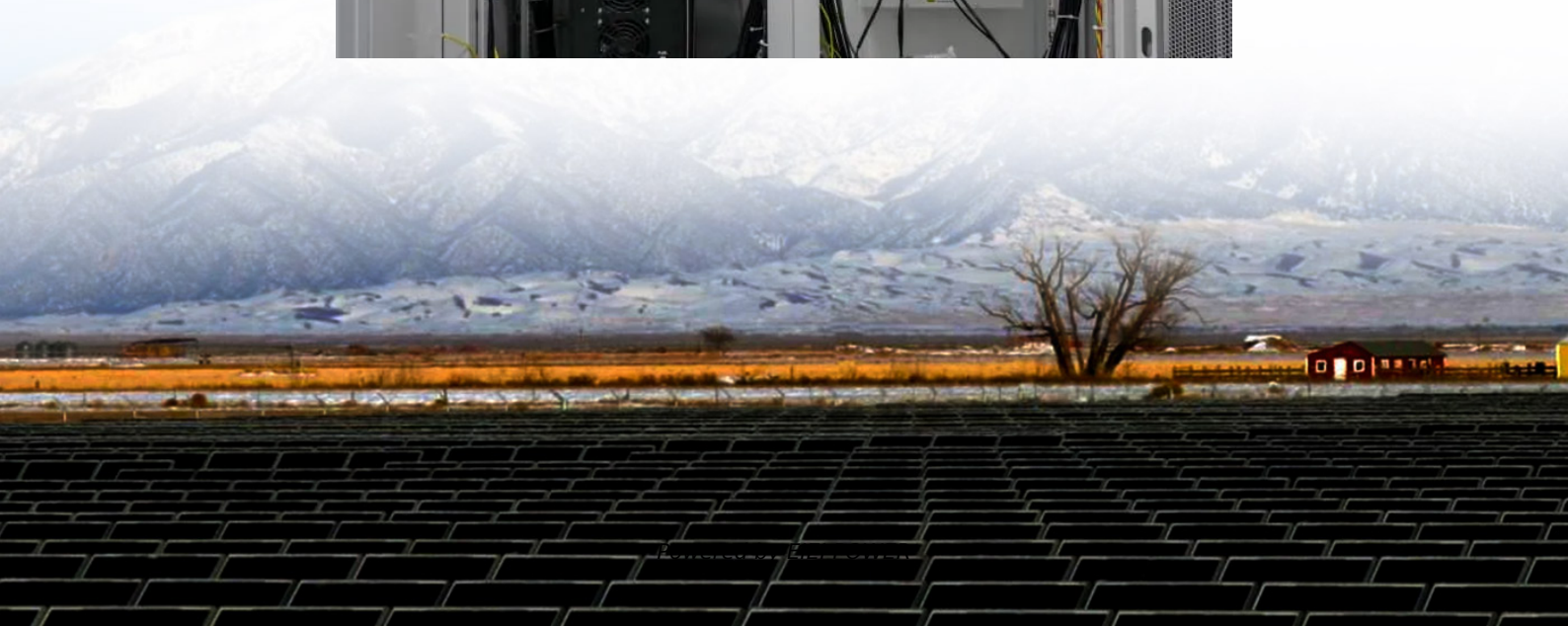


Battery cabinet output current detection principle





Overview

These sensors operate on a straightforward principle: when current flows through a low-resistance shunt resistor, a voltage drop is generated across the resistor. How do battery current sensors work?

Battery current sensors are also used to determine the state of charge in most battery management systems, making them critical for accurate energy management. Zitara Live, for example, uses current sensor data as one of many inputs to determine the battery state of charge.

Why is current & voltage sensing important in a power management system?

Regardless of the implementation, a common requirement is an intelligent power management system to charge batteries and ensure seamless transitions between power sources. Current and voltage sensing is an indispensable function in such power management systems. Current sensing can be implemented either on the high side or on the low side.

What is a 12V battery monitoring system?

Monitoring current off an automotive 12-V battery provides critical data for a variety of applications such as module current consumption, load diagnostics, and load feedback control.

What is a current sensing circuit?

Current sensing is a fundamental requirement in a wide range of electronic applications. Motor speed controls and overload protection This application note focuses on the concepts and fundamentals of current sensing circuits.



Battery cabinet output current detection principle

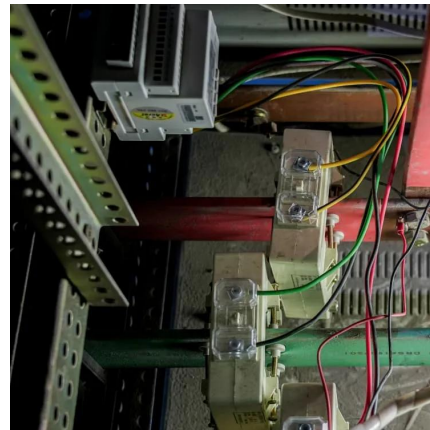


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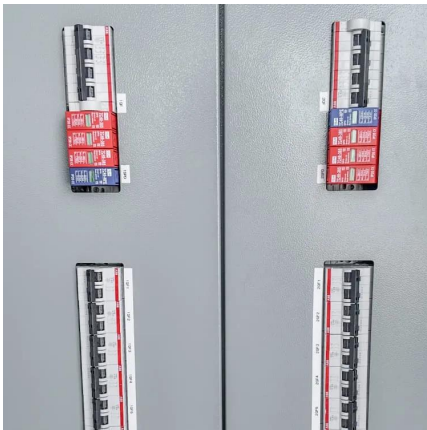
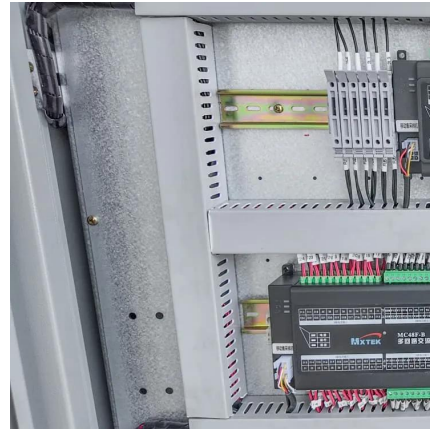
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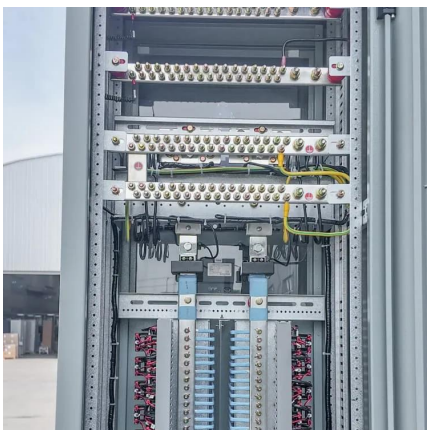
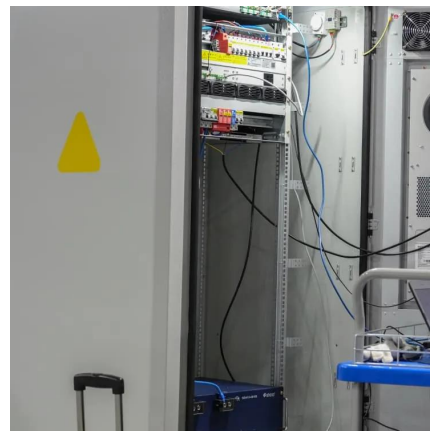


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