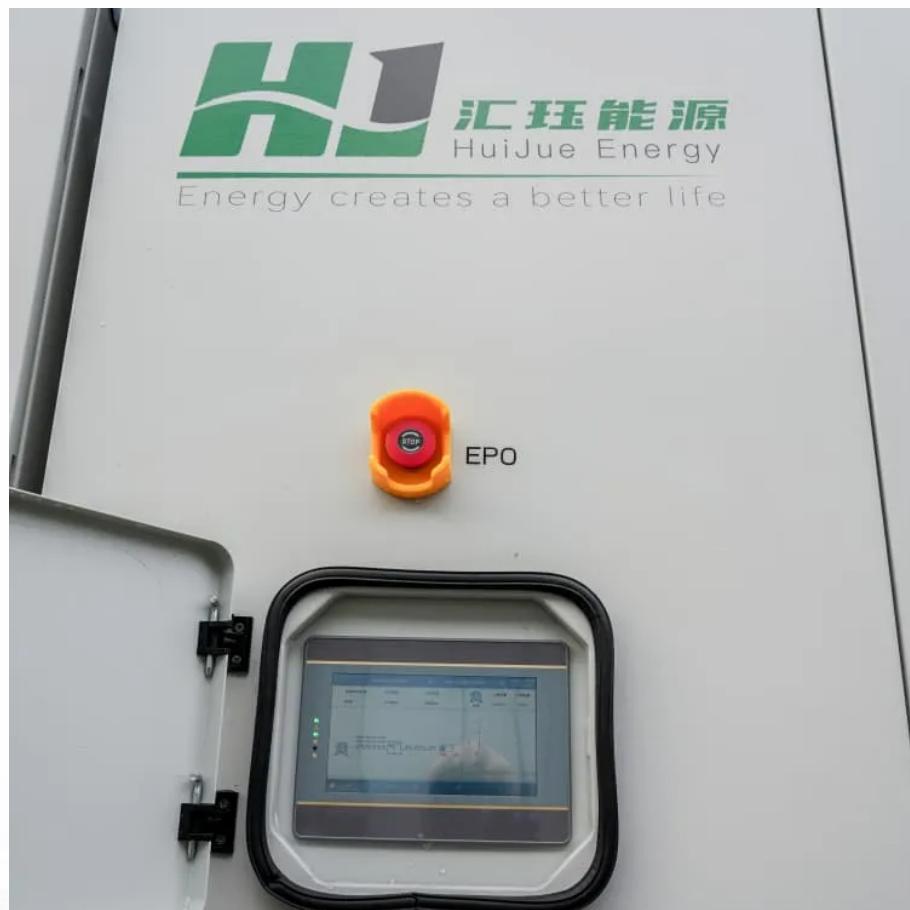




WALMER ENERGY

Battery cabinet prevents current backflow





Overview

Why is a complete backflow prevention circuit necessary?

This is a fatal problem. For this reason, a complete backflow prevention circuit with low current leakage is necessary. The simplest and most effective measure is configuring a complete backflow prevention circuit using the ideal diode IC.

What are the consequences of current backflow?

You need the diodes when one source is higher voltage than another. For instance it would be unsatisfactory if you applied 6V to a 3.7V battery and overcharged it, damaging the battery.

What is battery reversal protection?

A variety of circuits can provide this assurance. The simplest form of battery-reversal protection is a diode in series with the positive supply line (Figure 1a). The diode allows current from a correctly installed battery to flow to the load and blocks current flow to a backward-installed battery.

How does a backward-installed battery work?

When you install the battery correctly, the current-limiting resistor in the base lead forward-biases the base-emitter junction. A backward-installed battery reverse-biases the transistor, and no current can flow.



Battery cabinet prevents current backflow

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