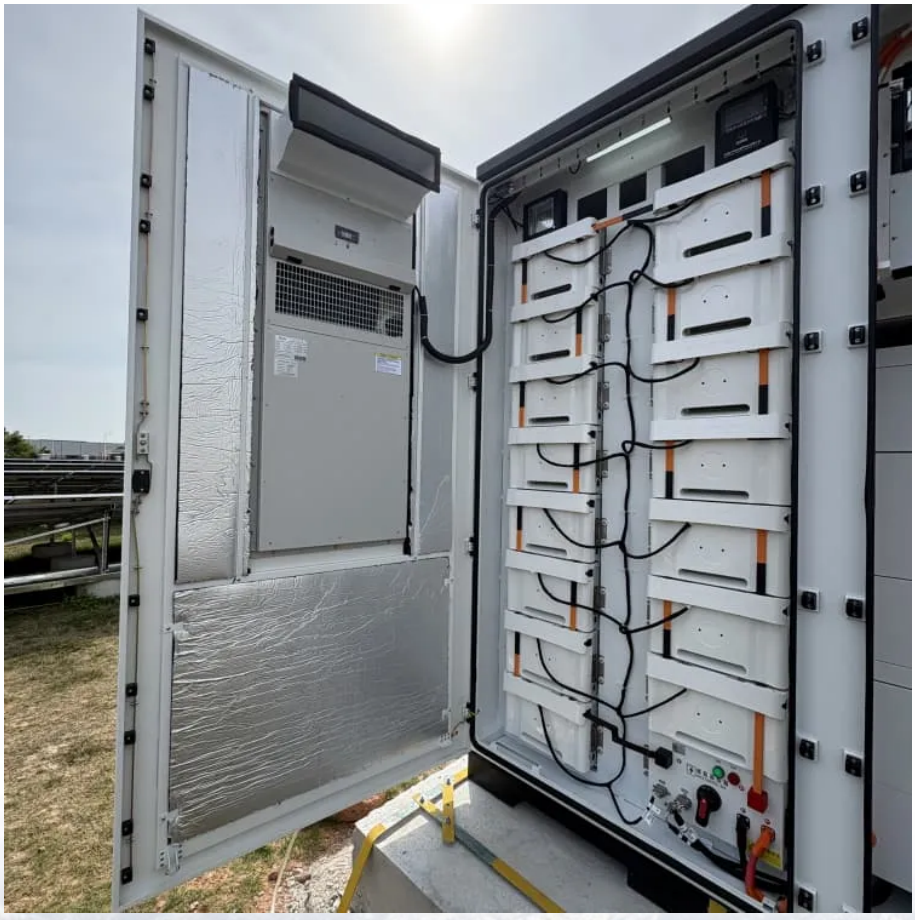
A-Core Container

The instantaneous current when the battery is connected to the inverter is large



Overview

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We all know that when you initially connect an inverter to power you get a spark as the capacitors charge up. For bigger inverters this spark is pretty significant. If the final connection is to your battery it means you get a tiny "weld" on the battery terminal each time you do this.

There will be losses in the inverter, meaning that you will need even more current from the battery than calculated. You need to find a battery protection module that can handle much more than 40A. To be safe, I'd be looking for one that can handle at least 80A.

The DC current from the battery is a function of the AC output current. Since the AC output current is limited by a built in OCPD, the DC current will not exceed the design limits, even with a huge battery connected to it.

The battery delivers DC (direct current) power, which is then converted to AC (alternating current) by the inverter to operate household appliances and devices.

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