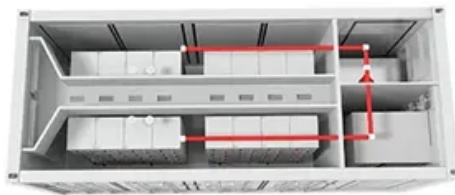


SolarInnovate Energy Solutions

Energy storage inverter



Overview

How does a power inverter work?

The inverter converts electricity from direct current (DC) into alternating current (AC) electricity and vice-versa, facilitating energy storage and later use. The control software manages the efficiency and timing of the energy conversion and storage process.

Why are inverters important for energy storage projects?

Inverters also serve as the brains of an energy storage project, managing, optimizing and driving project performance and financial returns. The difference between central and string inverters, while simple, has profound implications for long-term project design, performance and safety.

Why do we need a battery inverter?

As the energy storage market becomes more competitive, so do demands for innovative, cost-effective inverter technologies. One response is to turn to off-the-shelf components, such as placing batteries in smaller enclosures along with associated air-conditioning and fire-protection systems.

Are string inverters good for energy storage?

Typically, central inverters have been the standard for commercial and utility-scale energy storage applications. But that is shifting as costs drop and developers, EPCs, owners and operators discover more about the performance benefits of string inverters. The solar PV market embraced string inverters first, but energy storage is gaining momentum.

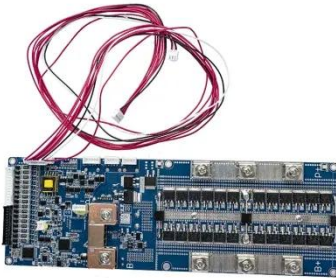
What is a string inverter?

As their name implies, central inverters centralize the project's energy through one conduit. String inverters use a distributed architecture, breaking the system down into smaller, multiple inverters and usually more than one DC bus. The concept behind string inverters should be familiar.

Can a solar inverter create a microgrid?

Grid-forming capability. Inverters for solar PV are unidirectional, but string inverters designed for energy storage are bi-directional and some (such as those from LS Energy Solutions) have grid forming ability. This opens up the opportunity to create a microgrid.

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