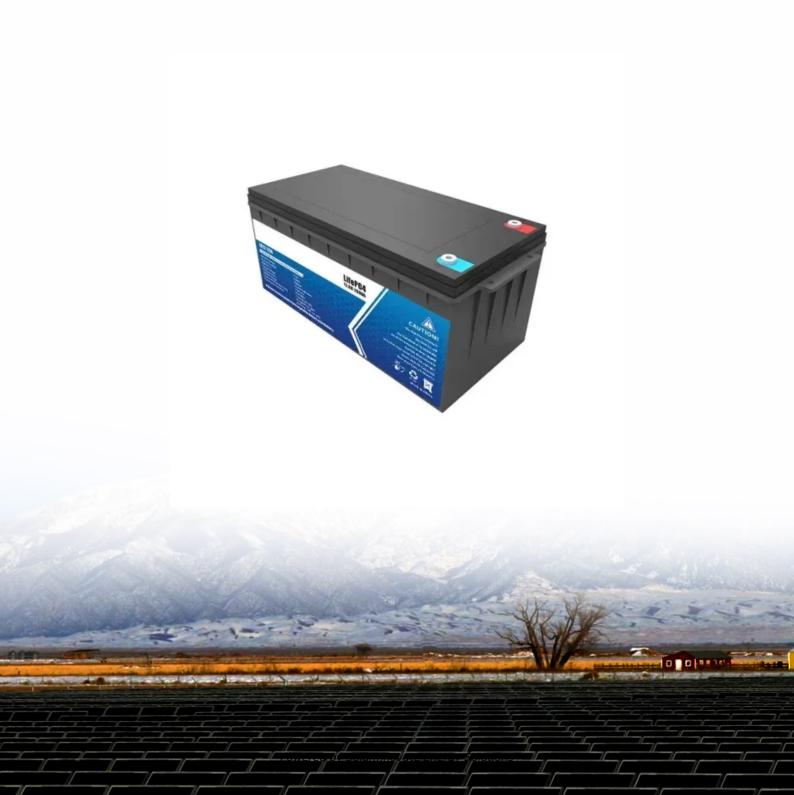


SolarInnovate Energy Solutions

Single-phase inverter antibackflow device





Overview

How does an inverter achieve anti-backflow?

Upon detecting current flow towards the grid, the inverter will reduce its output power until the countercurrent is eliminated, thereby achieving antibackflow. It is important to note that the CT and meter themselves do not have anti-backflow capabilities; they simply collect data to enable the inverter to adjust its output accordingly.

How does a Deve inverter anti-backflow work?

4. The solution?

Deye inverter anti-backflow working principle: install an meter with CT or current sensor at the grid-connected point. When it detects that there is current flowing to the grid, it will feed back to the inverter, and the inverter will immediately change its working mode and track from the maximum power point of MPPT.

What is an anti-backflow controller?

So the anti-backflow device came into being. The principle of the anti-backflow controller is to control or cut off the output of the grid-connected inverter by monitoring the input power on the grid side, so that the photovoltaic grid-connected power generation system will not feed the grid.

How a photovoltaic system is anti-backflow?

According to the requirements of the domestic Golden Sun Project for gridconnected photovoltaic systems, the photovoltaic system on the user side must be spontaneous and self-use. So the anti-backflow device came into being.

What is a photovoltaic inverter?

The inverter refers to a component that converts DC to AC. However, after the



photovoltaic power generation system is integrated into the grid, it is easy to generate harmonics and three-phase current imbalance, and the randomness of the output power is likely to cause grid voltage fluctuation and flicker.

Why should I install an anti-backflow prevention solution?

There are several reasons for installing an anti-backflow prevention solution: 2.1.Limited by the capacity of the upper-level transformer, users have new grid system installation needs, but it is not allowed locally. 2.2.Due to some regional policies, grid connection is not allowed. Once it is found, the grid company will impose a fine.



Single-phase inverter anti-backflow device



What is Backflow Prevention? Key Roles of Backflow Prevention Devices

Feb 28, 2025 · This reverse current direction--from PV panels -> inverter -> grid--is termed "reverse power flow" or "backflow", conflicting with standard grid operation. 02 How Backflow ...

What is Backflow Prevention? Key Roles of Backflow Prevention Devices

Feb 28, 2025 · In grid-tied photovoltaic (PV) systems, excess solar power flows backward to the grid when generation exceeds local load demand. This reverse current direction--from PV ...





Principle of Anti-Reverse Current of Photovoltaic Inverter

Oct 15, 2024 · Single-machine singlephase anti-backflow system solution Equipment required for function realization: photovoltaic grid-connected inverter, anti-backflow meter, communication ...



The Importance of Anti-Backflow Function in Inverters

Jun 3, 2025 · To ensure safety, efficiency, and compatibility with the grid. One such innovation is the antibackflow function (also known as antireverse current protection) in inverters-a key ...



Contact Us

For catalog requests, pricing, or partnerships, please visit: https://institut3i.fr