

Non-isolated inverter voltage utilization





Overview

Does a single-phase single-stage non-isolated inverter have leakage current and step-up voltage capability?

In order to solve the problem of leakage current and step-up voltage capability associated with the single-phase single-stage non-isolated inverter, a new topology is proposed in this paper. The proposal has the advantages of less switch components, high step-up voltage capability and no leakage current.

What are the advantages of a single-phase single-stage non-isolated inverter?

The proposal has the advantages of less switch components, high step-up voltage capability and no leakage current. The three operation modes are discussed and the modulation strategy is designed. Finally, the prototype of the proposed new single-phase single-stage non-isolated inverter is established.

Are non-isolated grid-connected inverters a good choice?

In recent years, grid-connected inverters with high-frequency transformer isolation modes have developed rapidly, and non-isolated grid-connected inverters have gradually been accepted for their high efficiency and simple control. Therefore, non-isolated inverters have not been the focus of development [3, 4].

What are the different types of photovoltaic inverters?

Traditional photovoltaic inverters are divided into two types: isolated and non-isolated [1, 2]. Isolated grid-connected inverters are divided into power frequency transformer isolation mode and high-frequency transformer isolation mode.



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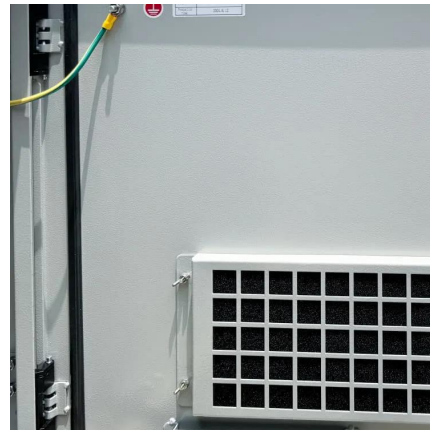


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