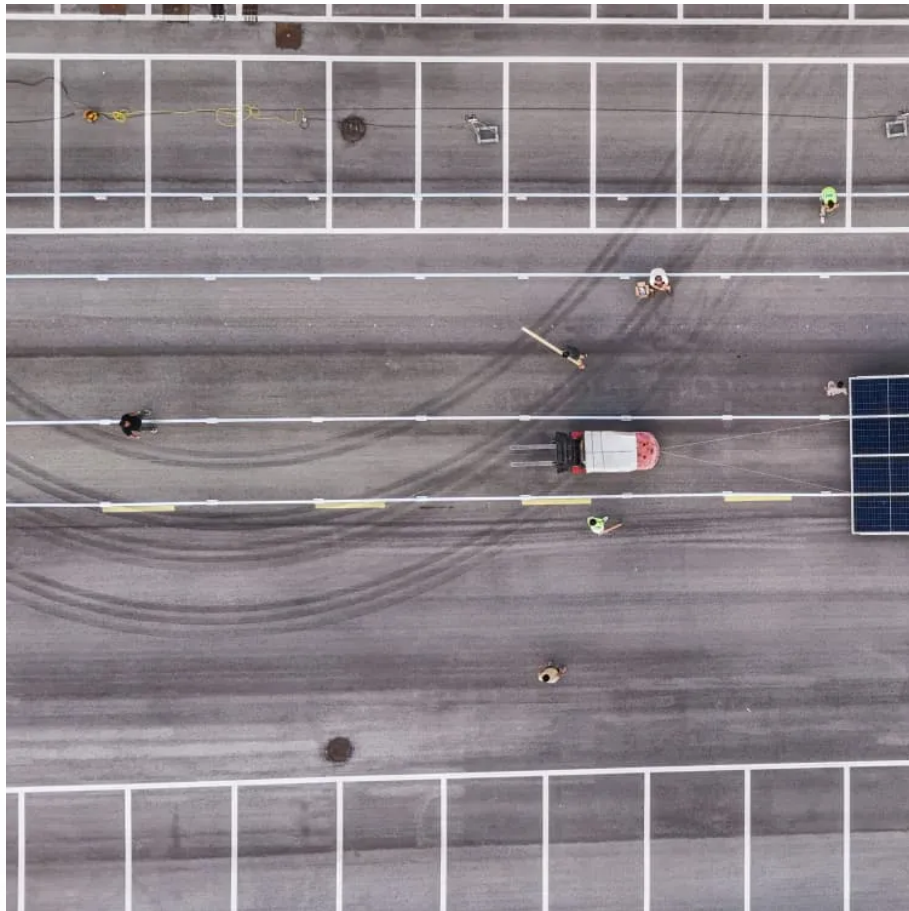


Inverter voltage multiple





Overview

What is a multilevel inverter?

The multi-level inverter consists of several switches. The devices with lower ratings can generate higher voltage. An increase in the number of voltage levels produces a better voltage waveform. The reduction of switching frequency for the PWM operation. How Multilevel Inverters Works?

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How does an inverter generate a multi-level voltage?

The proposed inverter adopts a switched-capacitor boost circuit to boost the AC output voltage and to generate a multi-level voltage. Simultaneously, a three-phase full-bridge circuit is assigned to convert the DC voltage into AC voltage. In addition, a novel space vector modulation strategy is introduced to achieve capacitor voltage self-balance.

What is a triple two-level inverter?

To address the above issue, a triple two-level inverter is proposed in this paper. The proposed inverter adopts a switched-capacitor boost circuit to boost the AC output voltage and to generate a multi-level voltage. Simultaneously, a three-phase full-bridge circuit is assigned to convert the DC voltage into AC voltage.

How does a two level inverter work?

A two-level inverter creates two different voltages for the load, i.e., suppose we are providing V as an input to a two-level inverter, then it will provide $+V/2$ and $-V/2$ on output. In order to build an AC voltage, these two newly generated voltages are usually switched.



Inverter voltage multiple

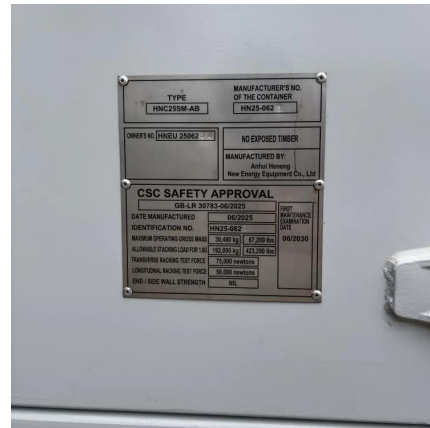


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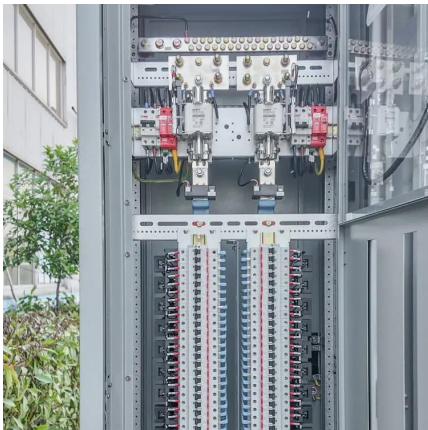
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