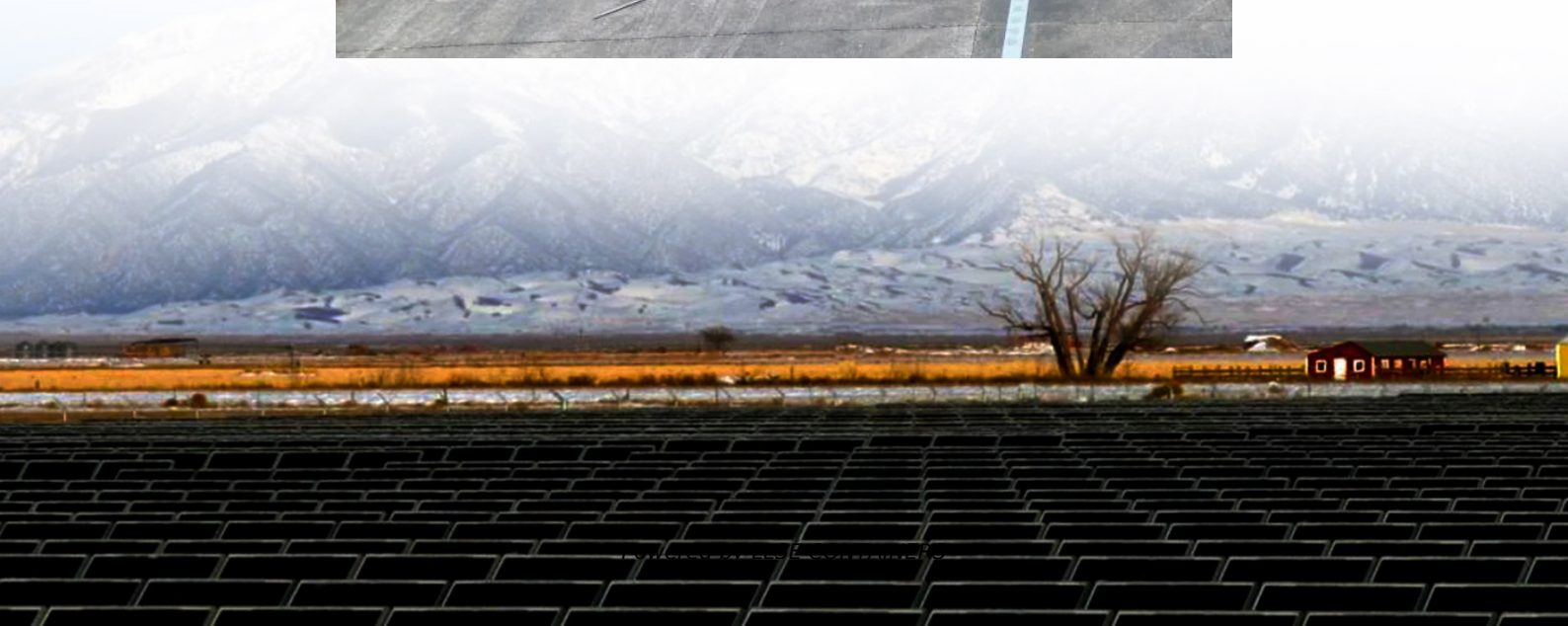


Inverter urgently needs to increase high voltage output





Overview

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.

How many levels can a SC boost inverter output?

The inverter can output 10 levels, but its obvious shortcoming is a low boost capability, which can only raise the voltage to 2 Vdc. In , a SC boost inverter was proposed to increase the output voltage. The inverter can achieve a quadruple output voltage gain by its H-bridge circuit.

Can a triple two-level inverter boost AC voltage?

Currently, many inverters employ inductors to boost the AC voltage. However, this leads to increased current distortion and limits the voltage boosting capability of the inverter. To address the above issue, a triple two-level inverter is proposed in this paper.

Do you need a boost circuit for a DC-link inverter?

In specific industrial situations where the DC-link voltage is low, an additional boost circuit is required to generate an appropriate AC voltage . At present, the Z-source inverter is one of the most common boost circuits [4, 5, 6].



Inverter urgently needs to increase high voltage output

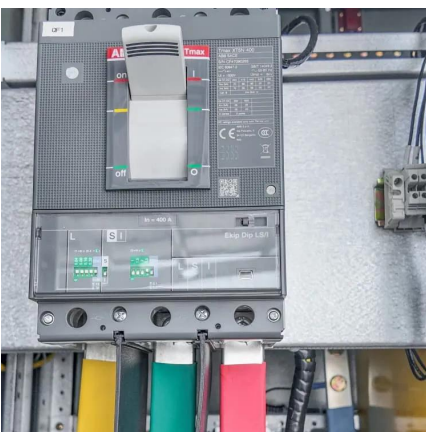
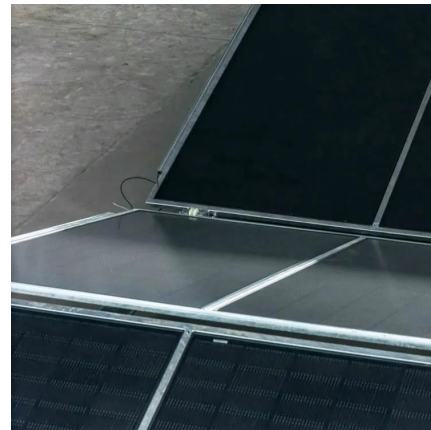


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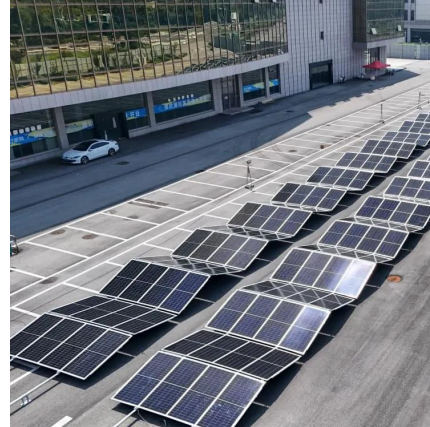


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