

The larger the inverter voltage the larger the ripple





Overview

Does voltage ripple affect capacitor size?

In addition, voltage ripples on the capacitor vary directly with current ripple as well. So, improvement in the DC-link current quality, thereby reducing the capacitor size is a critical requirement in any inverter-based power electronic system.

What is the DC-link voltage ripple of Si-IGBT based inverter?

The DC-link voltage ripple of Si-IGBT based inverter under the modulation method of SVPWM is evaluated in and . For a conventional IGBT based inverter, because of the low switching frequency, bulky DC-link capacitor is necessary.

Can a DC-link voltage ripple be analyzed for an inverter without electrolytic capacitor?

In this paper, the DC-link voltage ripple is analyzed for an inverter without electrolytic capacitor. As the capacitance density of non-electrolytic capacitors.

What causes a voltage ripple on a DC-link capacitor?

For a conventional hard-switching three-phase voltage source converter, the DC-link capacitor should be big enough to mitigate the voltage ripple to a tolerable value. Generally, two reasons will cause the voltage ripple on the DC-link, one is the pulsating current at the switching frequency which will cause high frequency voltage ripple.



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Evaluation of DC-link voltage ripple in five-phase PWM voltage ...

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...



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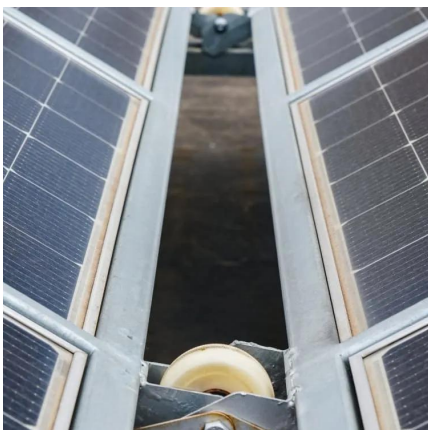
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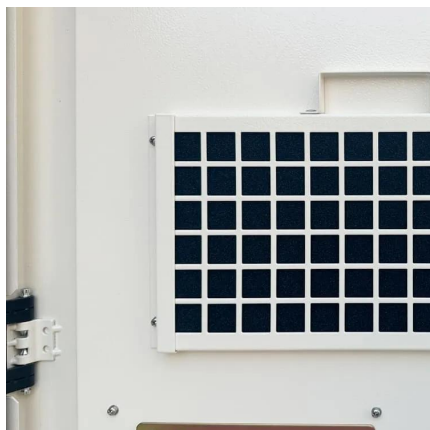


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