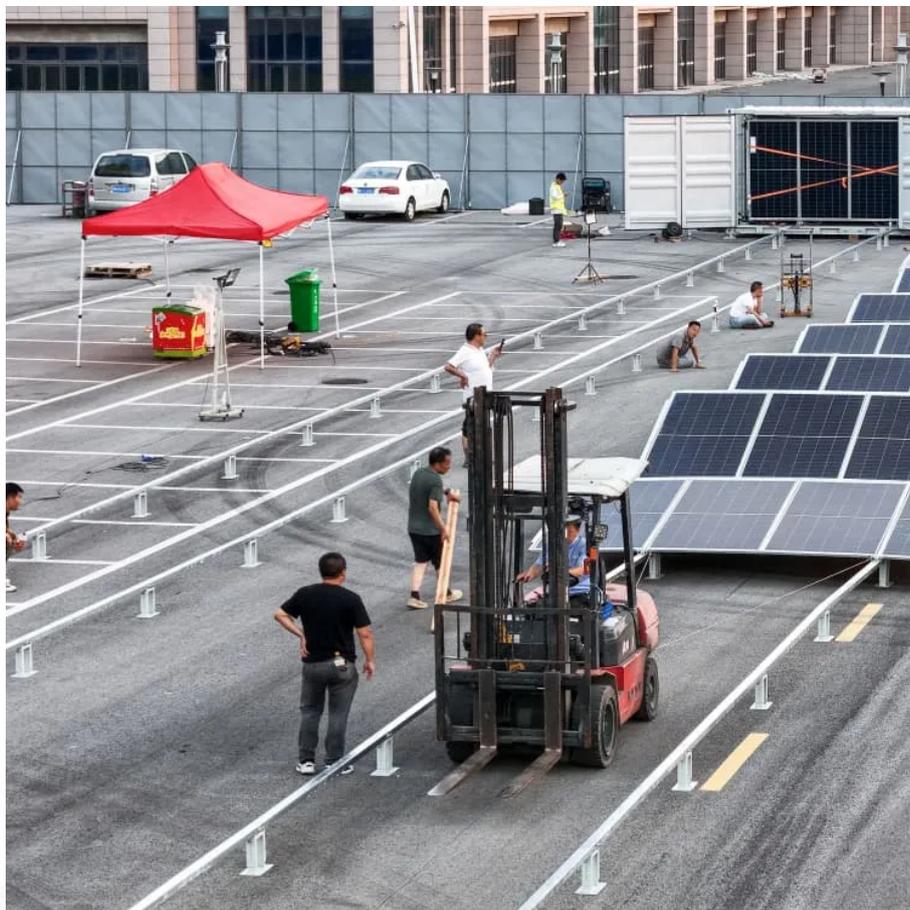


# The larger the inverter voltage the larger the ripple





## Overview

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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.



## The larger the inverter voltage the larger the ripple

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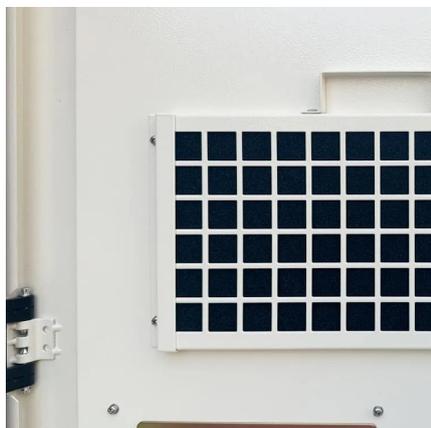


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