

High frequency modular parallel inverter





Overview

What are parallel connected modular inverters?

Parallel-connected modular inverters are widely used in high-power applications to increase the power capacity of the system. These modular inverters offer convenient maintenance and an adjustable power rating.

How to reduce high-frequency circulating current of modular inverters?

Various modulation methods, such as double reference PWM (DRPWM) and interleaved discontinuous PWM (IDPWM), have been proposed to reduce the high-frequency circulating current of various modular inverters .

Why do we need a parallel three-level inverter for integrated modulation?

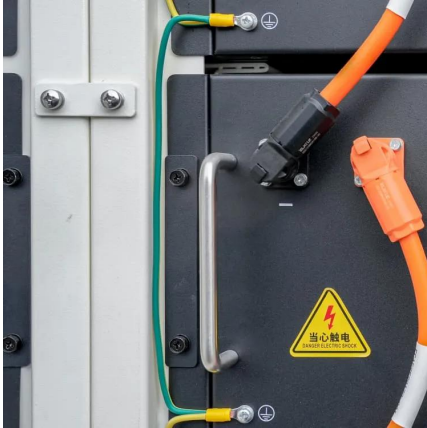
For integrated modulation, it is necessary to decompose each switching state into parallel three-level inverters, thus requiring a special design to ensure that the distribution of the parallel bridge states contributes to an increase in the output current quality and a reduction in the circulating current.

How does circulating current affect the power rating of a parallel inverter?

The circulating current deteriorates the output current quality and degrades the reliability of the parallel system [12–15]. Harmonic components of circulating current can influence the inverter life cycle, limiting the power rating of the total parallel-connected inverter [16, 17].



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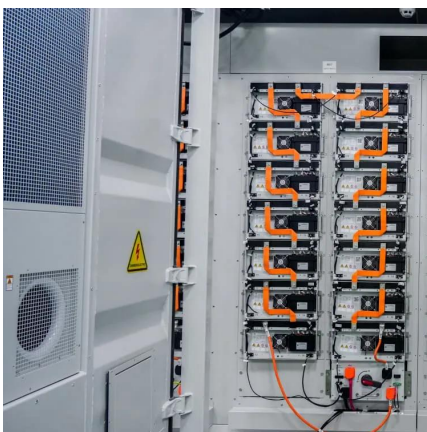
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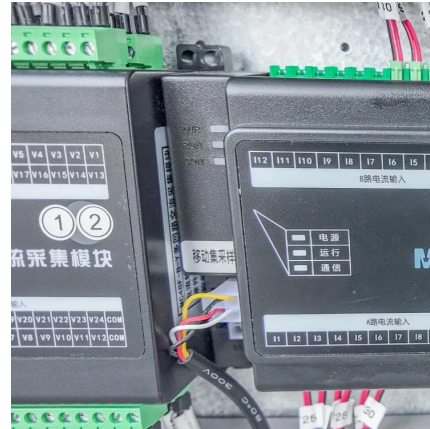
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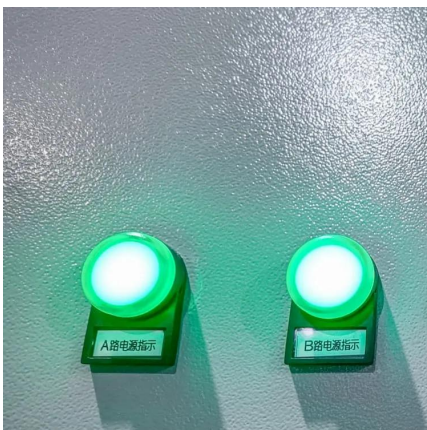
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