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Frequent overvoltage protection for solar inverters





Overview

What is a fast overvoltage protection mechanism?

Inverters, whether used for photovoltaic (PV) systems or energy storage facilities, typically include internal fast overvoltage protection mechanisms designed primarily to protect the inverter itself from damaging transients.

What is overvoltage protection?

Overvoltage protection serves to prevent damage to electrical and electronic devices as a result of excessive voltages. Overvoltage protection devices (surge protection devices, or SPD for short) generate equipotential bonding between the connected conductors when excessive voltage is applied.

Why is the protection level at the inverter increased?

In addition, the protection level at the inverter is increased if the overvoltage occurs at one of the other strings. When excessive voltage is applied, voltage falls via the cable inductance. If the arrangement is not ideal, the protection level at the inverter is increased (see Fig. 6).

Can lightning protection be combined with SMA inverters?

Also, special features of combining overvoltage protection devices with SMA inverters are described. The document covers lightning protection in as far as it influences overvoltage protection. Lightning protection systems are intended to prevent damage to buildings from lightning strikes.

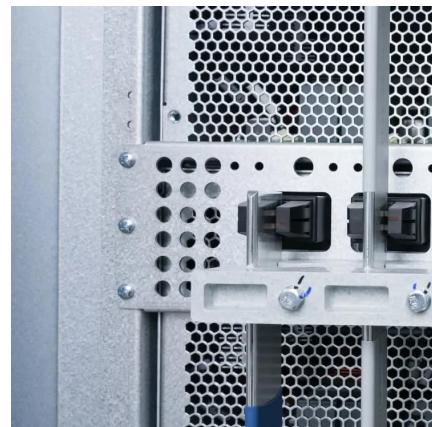


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