

Solar inverter power over- allocation





Overview

What is an oversizing capacity of a solar inverter?

This corresponds to an oversizing (peak PV array power in relation to the maximum AC inverter power) of up to 250%. If the required reserve of 25% is deducted from this due to a possible solar irradiation increase, the inverters still have an oversizing capacity of 185%. Typically, the average oversizing capacity of central inverters is 140%.

What is the cost-benefit of overloading a solar inverter?

Overloading has an obvious cost-benefit, as the per Wp cost for Solar Inverter comes down when we load a higher DC capacity against the AC Capacity of a Solar Inverter. So overloading the inverter may improve the weighted efficiency of the Solar Inverter, leading to better yield.

Can a solar inverter be overloaded?

While most inverters have lower efficiency when underloaded, overloading the inverter may improve its weighted efficiency and lead to better yield.

Can a SMA inverter disconnect a PV array?

Thus, SMA inverters can still disconnect the PV array's short-circuit current up to 6,400 A. This corresponds to an oversizing (peak PV array power in relation to the maximum AC inverter power) of up to 250%.



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