

STS devices work by continuously monitoring the quality of power on both the primary and secondary sources. If a disruption or failure is detected in the primary source, the STS swiftly transfers the ...

With secure communication protocols to be implemented to enhance cybersecurity and protect against cyberattacks, distribution grid equipment has to be smarter to deal with the much more complex and variable ...

Instead of moving contacts, an STS uses solid-state devices (SCRs or IGBTs) that can switch between two synchronized power sources in under 4 milliseconds. To put that into perspective, that's...

The proposed controller is verified through hardware experiments under different scenarios in a laboratory-scale microgrid for inverters transitioning from GFL to GFM mode after islanding.

Explore the innovation Product Center and open up a new future for green energy. The STS module adopts static switch seamless switching technology to support seamless switching. It adopts DSP design and supports ...

STS is pivotal in microgrid systems, enabling rapid switching between the main grid and energy storage sources. In case of a grid failure, STS ensures the load is swiftly transferred to energy storage ...

With the capabilities of STS and PESS to be observed in regulating three-phase unbalance, the study focuses on determining how to meet the unbalanced requirements within the exact planning of STS.

In practical applications, STS or ATS should be reasonably selected based on factors such as load characteristics, power environment, and budget to ensure the stable operation of microgrid systems and the ...

St. Thomas has one of the only student-focused microgrid research facilities in the nation. Students help develop technology and are trained to shape the evolution of energy in the face of climate change.

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