POWER INFRASTRUCTURE

SSTs: Powering AI and advancing electrification

Electrification and AI-driven power demand are pushing grid-to-load conversion beyond the limits of conventional copper and steel transformers. Solid-state transformers (SSTs) replace this legacy infrastructure with compact, efficient, software-defined power electronics that convert medium-voltage grid power directly into usable DC or AC power at a fraction of the footprint and weight.

Benefits

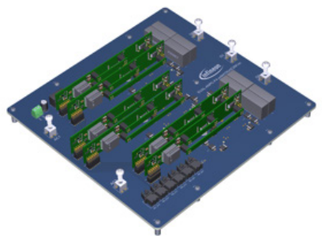
- De-risked medium-voltage (2.3–3.3 kV) topology design with a ready ANPC reference board
- Auxiliary power generated directly from the SST's own DC bus (1–3 KV) – no LV-AC grid connection required
- Optimized gate driver enabling high dv/dt switching with minimized losses

Highlight products

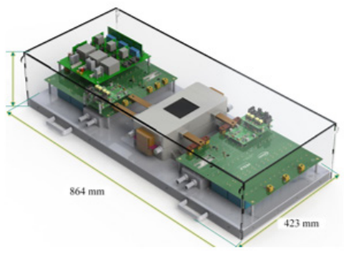
- EasyPAK™ 2.3/3.3 kV SiC modules
- CoolSiC™ 1700 V / 2 KV discrete
- EiceDRIVER™ gate driver (1ED3330MC12M)
- XENSIV™ curr. sensors (TLE4973, TLE557x)

Applications

- AI data center power distribution
- EV charging solutions
- Photovoltaic to grid and battery storage systems

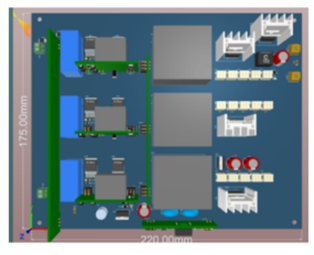


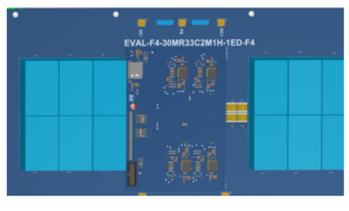
SST for AI data centers- ANPC Topology



Modular solid-state transformer systems for the AI Era

Solid State Transformer - 3.3 kV input auxiliary power supply with CoolSiC





EiceDRIVER solution for 3.3 kV CoolSiC MOSFETs Modular Solid-State Transformer

Scan for more information