POWER INFRASTRUCTURE

MV AC to 800 V DC power system for AI data centers

A SiC-based DC-DC converter forms the core of this ISOP system. With medium-voltage rectification plus 800 V DC distribution and protection, this architecture – enabled by our SiC technology – supports flexible voltage adaptation and modular scaling. With matching gate drivers and current sensors, this converter design showcases high efficiency and power density.

Benefits
- Isolation and fault handling in less than 3 µs
- Total harmonic distortion below 3%
- More than 99% efficiency
- 880 kW/m2 power density

Highlight products
- CoolSiC™ silicon carbide MOSFETs
- EiceDRIVER™ isolated gate drivers
- XENSIV™ precision current sensor

Applications
- AI data centers for DC power distribution
- EV chargers
- Energy storage systems to grid
- Photovoltaic to grid and battery storage systems



Modular by design. Scalable by architecture.

Scan for more information