

650 V GaN in Portable Power Systems



Portable power has long been a target for high voltage GaN, given the technology's inherent high switching speed and ability to run cooler than Silicon. These attributes are what attracted Inergy's attention as the company aimed to develop a lighter weight, high power output, and truly rugged portable power system.

In partnership with Telcodium, Inergy developed the Apex 3K: the industry's first fanless, portable dual input solar/AC generator offering 3 kWh while weighing less than 50 pounds.

Transphorm's GaN FETs are used throughout the design. Their standard packaging simplified design in and heatsinking, making the FETs close replacements for the Silicon IGBTs and MOSFETs used in prior models. The resulting Apex generator has a 110/120 Vac 3 kW continuous AC output and several Transphorm GaN-driven advantages over similar products.

The Apex 3K



INERGY

TELCODIUM
POWER SUPPLY TECHNOLOGY

Transphorm GaN benefits:

- 33% more power output
- Minimum 98% inverter efficiency from light load to full load
- Over 4 times faster charging
- Fanless for harsh environments
- Roughly half the weight