

Advanced medical power supplies for pulsed field ablation system

INDUSTRY

Electrosurgery

SOLUTION

UltraVolt® High Power C Series
SL Power™ NGB660 Family

EQUIPMENT

Pulsed Field
Ablation

CHALLENGE

A major medical device company needed to design a Pulsed Field Ablation System using pulsed electric fields to selectively target cardiac tissue without injuring surrounding tissues for treatment of atrial fibrillation. They require a single output AC-DC power supply and a high voltage DC-DC converter for a capacitor charging application. The customer seeks a vendor with broad medical portfolio of highly reliable standard products to accelerate time to market.

The customer was seeking:

- Trusted and well-known brand in market
- High reliability & long life
- Willingness and ability to collaborate on future requirements
- Reduced lead-time for initial samples
- Fanless solution that protects sensitive system from vibration and air disturbances

SOLUTION

Advanced Energy's recommended solution was the SL NGB660 Family for the AC-DC power supply and the UltraVolt High Power C series of high voltage regulated DC-to-DC converters.

The SL Power NGB660 provides 660 W of power in a compact size at just 4.0" x 6.0" x 1.5" and has enhanced EMI and EMC performance which ensures easy integration into end equipment. In addition, the SL Power NGB660 Family meets IEC60601-1-2 4th Edition EMC requirements and features 2x Means of Patient Protection (2xMOPP).

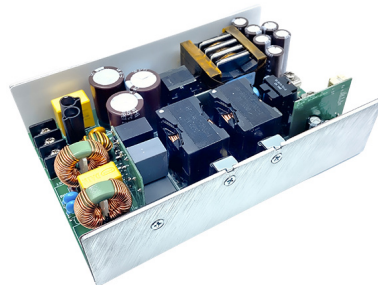


Fig. 1. SL Power NGB660 Family Single Output AC/DC



Fig. 2. UltraVolt® High Power C series 2C24-P250

Requiring up to 2000 V of tightly regulated output power, the UltraVolt High Power C 2C24-P250 (providing up to +2000 V/250 W) was provided as a sample. This power supply met the customer's technical requirements, including suitability for high-energy pulsers, amplifiers, and discharge devices with large capacitance, fast repetition rates, and high current loads. The customer was extremely satisfied with the performance.

AE provides the following advantages:

- World-class service and consulting from technical experts
- Reduced lead-time for initial samples
- Willingness and ability to collaborate on future requirements
- Fanless solutions protecting sensitive system electronics from vibration and air disturbances

RESULT

By choosing Advanced Energy's SL Power NGB425 Family and UltraVolt High Power C Series, the customer satisfied their requirements for highly reliable AC-DC and DC-DC power supplies, with high power density and low ripple. As a result of the exceptional technical support and fast turnaround of samples, the customer was able to accelerate their development cycle and gain regulatory approval.

CONCLUSION

Advanced Energy's SL Power NGB660 Family and UltraVolt High Power C Series were an ideal combination for this customer to meet the fast rise time required by novel pulsed field ablation applications utilizing state-of-the-art power conversion topology.

The short lead time and exceptional technical support enabled an accelerated development cycle and improved speed to market. With Advanced Energy's broad portfolio of highly reliable medical solutions, we are well equipped to meet all your high and low voltage application requirements.



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