

Powering the future of RF Electrosurgery

INDUSTRY**Electrosurgery****SOLUTION****CS1000 Series****APPLICATION****Radio Frequency****BACKGROUND**

Radio Frequency energy is the gold standard for cutting, coagulation, vessel sealing and dissection. The ability to seal and transect vessels and tissue effectively, accurately and safely is a critical surgical task. With added focus on surgical efficiency, hospitals and surgeons prefer more multifunctional instruments to reduce the number of different surgical instruments as well as using ones that reduce procedure times, recovery time and patient outcomes.

CHALLENGE

A major medical device company was designing a next generation RF generator intended for use with monopolar and bipolar instruments to cut and coagulate tissue during surgical procedures.

They were seeking a partner with deep application knowledge, proven expertise in power supplies and a broad product portfolio of medically approved power supplies.

They were seeking a fanless medically certified 1000 W AC-DC power supply with 48 V output to power their stepper motor, main processing board, and two 400-Watt RF amplifiers.

SOLUTION

Advanced Energy's CS1000, as part of the Excelsys product line, is the latest addition to our fanless range of power supplies. The single output CS1000 delivers an incredible convection-cooled 1000 W in an open-frame U-channel form factor, eliminating acoustic noise detrimental to scientific and medical applications, and is ideal for applications sensitive to vibration or where fan cooling is not available. With an extensive feature set including PMBus™, digital control/communications and analog control, the



CS1000 delivers industry leading levels of performance, efficiency, and reliability. Additionally, the elimination of a fan improves thermal reliability by removing a potential point of component failure. With BF (Body Floating) ready output voltages, the CS1000 is an ideal bulk power supply for challenging medical applications in patient care and surgical tools.

Medical Certification

- IEC60601-1 3rd edition
- 2 MOPP
- Dual fused

AE provides the following advantages:

- World-class service and consulting from technical experts
- Short lead times for samples
- Fast time to market with lowest total cost of ownership

CONCLUSION / RESULT

By choosing Advanced Energy's CS1000 Series, the customer satisfied their requirements for fanless, medically certified 1000 W power supply with high power density and best in class quality. As a result of the exceptional technical support and fast delivery of samples, the customer was able to accelerate their development cycle. BF levels of isolation on the power supply greatly simplified system safety compliance, reducing compliance time and accelerating their time to market.

Advanced Energy's Excelsys CS1000 Series is designed to meet customer's demanding specifications utilizing state-of-the-art power conversion topology. With Advanced Energy's broad portfolio of highly reliable medical solutions, the engineering team is well equipped to meet all high and low voltage application requirements for novel electrosurgery devices.



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