

# Innovative Type CF Power Supply Solution for Atherectomy Devices

**INDUSTRY****Electrosurgery****SOLUTION****NCF425S48K****APPLICATION****Atherectomy****CHALLENGE**

A leading medical device company embarked on a groundbreaking project to develop an Atherectomy device, a crucial tool for removing plaque buildup in arteries and restoring blood flow.

The company faced the challenge of finding a single output AC-DC power supply that would meet device-level CF rating requirements while ensuring a swift time to market with minimal customization.

The customer sought a solution that offered:

- A trusted and well-known brand in the market
- High reliability and long product life
- 48 V at 400 W output
- Universal input for global use of their device
- Reduced lead-time for initial samples
- The shortest development time for power supply qualification to expedite total system validation

**SOLUTION**

Advanced Energy's innovative NCF series products, specifically the NCF425S48K model, emerged as the perfect fit for this application. The standard product already carried the necessary regulatory certifications required for these types of devices, including:

- Less than 10  $\mu$ A of patient leakage current
- 2 x MOPP input to output isolation
- 1 x MOPP input to ground isolation
- 1 x MOPP output to ground isolation
- 5 kV defibrillator pulse withstand protection



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## RESULT

Initial sample power supply was provided to the customer within a few weeks of contact with Advanced Energy. By choosing Advanced Energy's SL Power NCF425 series, the device designer was able to quickly find a power supply for their device that satisfied their requirements.

As a result of the fast turnaround of samples, the customer can accelerate the development cycle and gain regulatory approval.

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## BENEFITS

Advanced Energy and the NCF425 series of products offer these benefits to critical medical device designers:

- Standard off-the-shelf type CF products fully certified to medical safety standards -IEC/UL/CSA/EN60601-1, enabling reduced development time and faster time to market.
- World-class service and consulting from technical experts to help with system integration.
- Reduced lead time for initial samples
- Willingness and ability to collaborate on future requirements

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## CONCLUSION

Advanced Energy's SL Power NCF425 series is an ideal solution for this customer to meet the stringent patient safety requirements required by a critical invasive medical product utilizing state-of-the-art power conversion topology.

The short lead time and exceptional technical support enables 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 high and low voltage application requirements.



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