

# High voltage power supply required for use in shockwave-based lithotripsy system

INDUSTRY	SOLUTION	EQUIPMENT
Medical Treatments	UltraVolt High Power C series	Shockwave Therapy

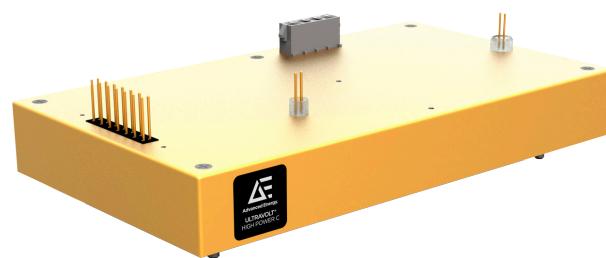
## CHALLENGE

A leader in shockwave-based systems for urology, cardiovascular, and orthopedic applications is developing a versatile, easy-to-use device to break-up calcium deposits in patients. The system uses a sparkplug-like electrode that is submerged in water to produce an ultrasonic shockwave that can be targeted at calcified stones. The system requires a high voltage DC-DC power supply to charge a capacitor that discharged into the sparkplug like electrode at 100 cycles per second. Additionally, the power supply needed to withstand the high EMP produced when the sparkplug like electrode was fired.

## SOLUTION

In order to meet the customer's stringent demands, extensive modification of Ultravolt's standard P/N 25C24-N250-I10. The modified power supply proved to be rugged enough to withstand the requirement of this capacitor charging system at a reasonable price compared to UltraVolt's competitors. Powering the system required a pair of these power supplies (used in parallel) to charge the capacitor within the system. Additional protection features were implemented into the solution to withstand the constant high current discharges.

Working closely with the customer and utilizing Ultravolt's expert knowledge of high voltage and capacitor charging applications, the team was able to satisfy all the requirements needed by the customer to bring their device through testing and FDA approvals.



Additional features of the UltraVolt High Power C series:

- Output volt ranges from 125 V to 60k VDC maximum
- Choice of 60, 125, or 250 W maximum power
- Factory-configured performance, control and integration options
- UL/cUL recognized, IEC-60950-1, CE-Mark (LVD and RoHS)

## RESULT / CONCLUSION

The High-Power C Series was able to provide the customer with the reliability needed in their application. Along with excellent customer support, the customer was able to accelerate through testing trials.

Additional benefits include:

- Short lead time
- Exceptional applications & engineering support
- Flexible engineering adjustments to meet need
- Reputation for quality and reliability
- Leader in modular power supplies



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