

Power supplies required for use in medical life science equipment

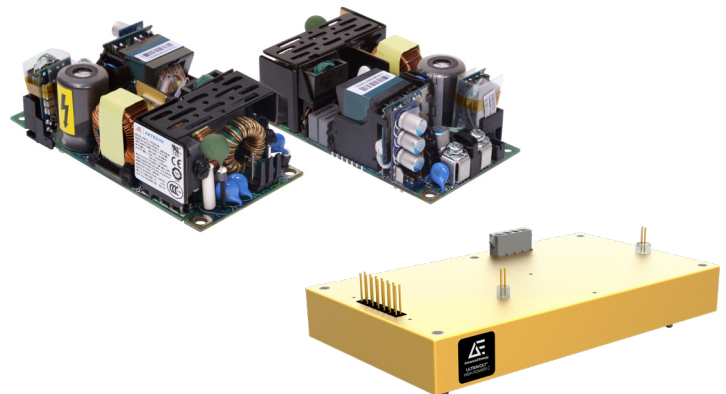
<p>INDUSTRY</p> <p>Medical Life Science</p>	<p>SOLUTION</p> <p>Artesyn CPS255-M and UltraVolt High Power C</p>	<p>EQUIPMENT</p> <p>Electroporation Instrumentation</p>
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CHALLENGE

A medical life science industry customer required a power supply for sensitive instrumentation requiring 3000 V controllable pulsed DC output along with an additional isolated 24 V system for electronics and a touch panel. The power supplies used in this end system required very low ripple, low noise, and high stability performance. The preferred solution requirements included fanless operation to ensure sensitive system electronics were not subjected to vibration and air disturbances and a high-density form factor to reduce system size for portability. The customer encountered difficulty in locating a total system product provider, particularly when looking for smaller multi-functional systems with mixed technologies.

SOLUTION

As a leading provider of AC-DC, DC-DC and specialized high voltage power, Advanced Energy offered two solutions that met the needed requirements. The Artesyn CPS255-M AC/DC power supply provided a regulated 24 VDC 75 W output for the system electronics and input power to the high DC-DC power module while the UltraVolt 4C24-P125 series delivered controllable, tightly regulated 3000 V to rapidly charge capacitors to deliver the required pulsed DC outputs. These solutions are certified to the most recent standards, including IEC 60601-1 3rd edition.



RESULT

Advanced Energy's Artesyn CPS255-M and UltraVolt 4C24-P125 products provided convection-cooled solutions, eliminating the need for system fans with moving parts thereby reducing acoustic noise and increasing reliability.

CONCLUSION

The dual power solution from Advanced Energy provided a complete power solution, enabling the customer to stay ahead of evolving life science market needs. The compact size of the solution greatly reduced overall system size and improved the portability of end user equipment. The robust and solid design allows for high reliability and performance in even the harshest and most demanding environments.



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