

Configurable power supply is preferred solution for dedicated imaging equipment

INDUSTRY
Medical
SOLUTION
Excelsys Ultimod
APPLICATION
Medical Imaging
CHALLENGE

A customer consulted with Advanced Energy about their need for a highly reliable and efficient AC-DC power supply unit (PSU) for their next-generation high-end dedicated cardiac SPECT system. The requirements were stringent:

- a power level of approximately 1200 Watts over a wide range AC input
- multiple isolated output voltages
- very stable and low output ripple voltage
- high efficiency in a compact size
- low acoustic noise
- compliance with IEC 60601-1 Medical Safety and -1-2 Medical EMC standards, ensuring very low leakage current

SOLUTION

The Excelsys Ultimod PSU was selected to meet customers' demanding requirements. The 1 U high modular power supply, equipped with six modules (each around 200 Watts), provided four isolated 24 V outputs, one 48 V output, and a 12 V auxiliary output. The modules not only delivered the necessary bias voltage for the detector but also powered all other motors and steering units, covering all the specified needs at the same time.



CONCLUSION / RESULT

The Excelsys Ultimod PSU proved to be an optimal solution, offering high reliability and meeting all the customer requirements. Its low output ripple and noise, combined with its compact size, allowed the customer to maintain a compact system design. With 90% efficiency, the Ultimod generates less heat in the system, simplifying system cooling. The Ultimod PSU's quiet operation, with no additional acoustic noise, was particularly beneficial as it was located very close to the patient during examinations. The customer turned to AE for their proven product reliability and customer support to eliminate risk and accelerate their system design completion.

ADDITIONAL BENEFITS

Advanced Energy's power supply solution not only met the technical requirements, but the engineering team also provided exceptional application support, ensuring that the customer received the best possible assistance throughout the project. The flexible engineering adjustments allowed the PSU to be tailored to meet specific customer needs, demonstrating a commitment to customer satisfaction. This project reconfirmed the reputation of Excelsys product line for maintaining the highest standards in quality and reliability, solidifying Advanced Energy's position as a trusted partner for manufacturers in the medical imaging industry.



For international contact information,
visit advancedenergy.com.

powersales@aei.com
productsupport.ep@aei.com
+1 888 412 7832

PRECISION | POWER | PERFORMANCE | TRUST

Specifications are subject to change without notice. Not responsible for errors or omissions.
©2025 Advanced Energy Industries, Inc. All rights reserved. Advanced Energy and AE are U.S.
trademarks of Advanced Energy Industries, Inc.