

# Advanced Energy's iVS8H perfect solution for transformative PET/CT system

## INDUSTRY

Medical Imaging

## SOLUTION

iVS8H

## APPLICATION

PET/CT

### CHALLENGE

A combination of PET-CT or PET-MRI scanners are blending the use of radiopharmaceuticals and cutting-edge imaging technology to generate detailed images of the body's physiological processes and organ locations. When selecting power supplies for these scanners, considerations such as stability and precision, filtering and noise reduction capabilities, safety features, and customization options are paramount. This well-known medical imaging customer had to take these factors into consideration, along with a short lead time for the low voltage power supply required. Advanced Energy (AE) had to prepare for their suggested product's prototypes to be evaluated, subject to environmental testing, and get customer approval. The solution had to support 5 different DC output voltages at a total 4 kW from a three-phase AC input, so the team at AE had to build to specifications based on customer requirements.

### SOLUTION

The proposed solution was Advanced Energy's iVS8H. It is a high voltage 3-phase AC input (380 to 480 VAC) to DC output configurable power system consisting of a microprocessor-controlled PFC front end providing 14 individual slots that accept intelligent DC-DC converter modules with single, dual or triple outputs ranging from 2 V to 60 V. Other factors which ensured the iVS8H was the correct solution included:

- Full Turn-Key solution - design & production
- PMBus®-compliant I2C serial interface
- Efficiency 85% typical depending on configuration
- Power Factor 0.99 typ @ full case load
- High power density at 12 W/in<sup>3</sup>
- ITE and Medical Safeties



## CONCLUSION / RESULT

The team at Advanced Energy ensured this was a successful project with frequent visits to the customer as the local AE team provided quick and expert engineering support. Due to successful engagement on previous projects, the customer was happy to engage with AE from the beginning and was familiar with the IVS8 series. Advanced Energy's ability to support a value-add solution using a standard modular power supply as a base and to accommodate modifications on the power supply allowed the customer to meet stringent power requirements. Fast samples delivery and commitment for long lifetime product delivery ensured a satisfied customer timeline.



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