

Case Study



Laboratory Applications

"The Falcon SG 6kVA Frequency Converter was able to quickly solve my customer's challenge of powering a sophisticated 50Hz European vacuum centrifuge analyzer."

*– Jerry Frantz, Owner
Frankfort Electrical Services*



Falcon Electric, Inc.
5116 Azusa Canyon Rd.
Irwindale, CA 91706

800-842-6940
www.falconups.com



DOD Customer Integrates Sophisticated Sample-Analysis Machinery with Falcon's 6kVA Frequency Converter

Frankfort Electrical Services is an engineering firm that specializes in projects usually deemed too complex for typical design-build firms. The company is located in a rural area in Virginia with neighbors that are large government, DOD, and other government-related firms. Naturally, many of Frankfort Electrical's customers are businesses that serve the government and associated governmental agencies.

A recent project had a Frankfort Electrical customer stumped: A local governmental agency that tests material and liquid samples for classified projects had spent months looking for an upgrade to their centrifuge-based chemical analyzer. They were looking for a unit that met rigorous demands for accuracy, reasonable price and most important, leading edge technological features such as CPU-based analysis with pre-programmed test methodologies/algorithms to speed up test results and lower operating costs. The search ended when they found a European-based supplier. This supplier was able to ship the analyzer and service the unit under warranty here in the U.S. Though some 230VAC/50Hz equipment will perform if fed 220-240VAC/60Hz (U.S.) power, this analyzer would not operate on 60Hz power, due mostly to the delicate motor drives and other sub-components that require a precise, rock-solid, regulated 230Vac 50 Hz input. At this point, the customer called on Jerry Frantz of Frankfort Electrical and told him of the new requirement for the install he was scheduled to perform later that month.

Frantz knew he had an unusual requirement, that of a 6kVA frequency converter which had to be delivered in a short amount of time and for a reasonable price. He called various suppliers that he worked with and did a Web search. To his dismay, most sales people didn't know what he was talking about. Even worse, their "sales engineers" gave vague answers to questions, demonstrating that they did not deal with frequency converters – a sure sign that this would

not be an ordinary search for a supplier. After more research, Frantz found Falcon Electric's website – www.falconups.com – and concluded that Falcon might be a good match.

Falcon's technical sales team proposed its SG 6kVA on-line, double conversion Uninterruptible Power Supply (UPS) that features optional frequency conversion. The Falcon SG unit supplies advanced frequency conversion, precision voltage regulation, along with battery backup providing users with a power solution designed for rigorous-duty laboratory applications. Delivering a pure output sinewave with input factor correction, a wide input voltage window, multi-stage surge protection, and a superior output regulation of ± 3 percent – critical for sensitive electronic equipment – the SG unit provides frequency conversion and robust power protection in one unit. Upon a power outage, the SG UPS will provide clean uninterrupted power to the connected lab equipment and then a no-break transfer to an onsite generator. Utilizing microprocessor technology, the UPS communicates with power management software to support unattended shutdown, management, data logging, and self-diagnostics. Remote management and monitoring functions are available through a standard RS-232 port, or an optional TCP-IP addressable SNMP/HTTP board with a standard 10BaseT Ethernet port. The SG unit's compact 32.1" x 10.2" x 21.8" footprint is also desirable as space in laboratories typically is very limited.

"I was very pleased that Falcon could come through so quickly for my customer's unique requirements. I wasn't expecting to find a system that provided both frequency conversion and battery back-up – this was a nice surprise. These features together with its small size, affordable price and quick shipment definitely made the SG unit the ideal solution for my customer," commented Frantz.