



Power Innovations
INTERNATIONAL, INC.

Case Study 1700

Power Innovations Provides InVision with Non-Stop Power for Airport Security Systems

The Customer

InVision is the leading provider of Explosives Detection Systems for the aviation security industry. Used all over the world for screening passenger-checked luggage, InVision's products and services are known for superior quality and reliability.

Invision's primary markets include the international civil aviation community, the U.S. Department of Transportation, and other government and secured facilities.

The Challenge

Airport security equipment is critical for protecting lives and ensuring safety. Large Explosives Detection Systems, such as the CTX 9000 DSi™ have become essential elements in airport operations.

In the past, airport security systems have been unprotected (no battery backup or control of power quality). In today's world, continuous and accurate operation of this highly-specialized equipment is a necessity.

Normal Power Risks

Normal utility power is subject to many spikes, dips, brownouts, noise, and frequency variations, as well as power outages. Any equipment connected to unprotected utility power is at risk. Sensitive electronic equipment, such as the Explosives Detection Systems, requires pure, clean power to operate with total accuracy.

While most airports have generator backup to address power loss, generators are not adequate and do not address ongoing utility power quality problems. Generator transfers temporarily leave systems without power; and once generator power is running, the quality of the power supplied is often compromised.

As part of heightened airport security, bag scanning for all bags became law for all USA airports in January 2003. The deployment of this homeland security equipment was not only domestic, but world-wide as well. Proper and consistent functioning of critical, sensitive Explosive Detection Systems requires quality power.

The Solution

Power Innovations provides a power unit that handles the large power needs of InVision Explosives Detection Systems and mitigates normal power risks. The Uninterruptible Power Quality™ (UPQ™) system, Q-LS30i, developed for the InVision CTX 9000 DSi™, is being FAA certified through InVision. The system is the first of its kind and will soon be available for new, and existing, InVision airport security equipment.

Airports security personnel can determine length of backup time desired and calibrate battery packs accordingly. In addition, while a system is connected to either utility or generator power, the UPQ system isolates, filters, conditions, and regulates incoming power.

InVision

INDUSTRY SERVED

Homeland Security

CHALLENGE

Airport security equipment is critical for protecting and ensuring safety.

SOLUTION

The Q-LS30i™ handles the large power needs of InVision Explosives Detection Systems and mitigates normal power risks.

ADVANTAGES

- Cost Efficient
- Battery Management
- Ease of Maintenance and Service
- Remote Monitoring

Additional Benefits

Besides providing quality power to InVision Explosives Detection Systems, the Power Innovations systems can also monitor and control critical functions such as temperature, humidity, etc. Through the UPQnet-agent II – via a network, an IP address, or dial-up connection – a comprehensive, easy to understand, and secure web page provides the vital information from and control of Q-LS30i and airport Explosives Detection Systems.

The Q-LS30i is highly efficient and provides battery and system monitoring and management, as well as easy maintenance and serviceability. The high efficiencies of the Q-LS30i provide less heat dissipation, less noise, and longer backup times. This Q-LS30i can save, in operational costs alone, up to \$12,000 annually in power bills.

Battery Management

All large systems utilize expensive battery banks. Ordinary UPS systems on the market use the batteries as part of the conversion process. Using batteries in this way damages the batteries over a short period of time, leaves the systems vulnerable to failure in a power loss situation, and shortens battery life.

The design of the Power Innovations Q-LS30i system allows total isolation, regulation, and regeneration of power without using the batteries. By eliminating the use of the batteries in the power conversion process, Q-LS30i systems are not vulnerable to failure in the event of power loss and do not require frequent battery replacement. These batteries, which are used only for supplementing power in a power loss situation, can also be locally or remotely monitored and managed.

Ease of Maintenance and Service

The display panel of the Q-LS30i provides detailed status and function information. Each circuit board has an LED indicator, which alerts the system administrator to error status and allows for immediate problem isolation and maintenance.

The Q-LS30i is designed for ease of maintenance and serviceability. All serviceable parts and components are located on slide trays and rails for quick access and repair. To ensure safety of the technician, high voltage areas have been secluded.

Remote Monitoring

The Q-LS30i provides the option of local monitoring and management via an RS232 serial port, and can be remotely monitored and managed using a UPQnet-agent II™. The UPQnet-agent II uses Simple Network Management Protocol (SNMP) to communicate with the Q-LS30i system. This universal protocol allows for Internet access of real-time power status and history reports. The UPQnet-agent II provides the flexibility to monitor and control power from within the data center network, from a remote location via an Internet connection or direct dial up, and from handheld devices such as PDAs or cell phones.

Power Innovations

Launched in 1997, Power Innovations has pioneered a revolutionary set of solutions to generate, store, and manage AC power. Power Innovations' mission is to provide and manage continuous high-quality power in conjunction with, or even independent of, utility services worldwide. Power Innovations is helping forward-thinking companies accomplish this goal through a new class of technology called Uninterruptible Power Quality (UPQ).

Powering Life

Powering Miracles
Powering Peace of Mind
Powering Life's Connections
Powering the Human Spirit
Powering Freedom
Powering Innovation



Contact Us:

Phone: 801.785.4123

Fax: 801.785.6999

333 South 520 West

Lindon, UT 84042

www.power-innovations.com

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