



Case Study 1900

Q-LS™ Series Provides Power Quality that Meets Hydril's Needs

The Customer

Hydril Company designs, manufactures, and markets premium connections and pressure control products for oil and gas drilling and production. Since 1933, Hydril has been redefining reliability in these markets by developing successive generations of world-class products that control extreme pressure and endure the harshest downhole conditions.

Exploration and production companies around the world use Hydril premium connections, especially in deep formations both on and offshore. Drilling companies use the company's pressure control products – including blowout preventers (BOP), diverters, and multiplex control systems – to protect personnel, equipment, and the environment from uncontrolled releases of fluids and gases.

Hydril is the industry leader in blowout protection, providing complete BOP stacks with controls for use in depths up to 12,500 ft. The deepwater BOP stack sits on top of a wellhead subsea, and is operated via a multiplex hydraulic control system. The BOP stack can partially close off the flow of oil from a well, and in extreme cases, completely pinch off the pipe coming from the well.

The Challenge

As energy production reaches into deeper waters and reservoirs, producers and drilling contractors must have BOPs that protect personnel, property, and equipment at exceedingly high pressures and temperatures. BOP systems are the last line of defense to stop an ecological disaster.

In order for everything to function with precision, quality power is critical. As the industry leader in blowout protection, Hydril needs the highest level of constant, reliable power for critical applications in the drilling industry.

The Solution

Critical power applications require the highest levels of performance, reliability, flexibility, and serviceability. Power Innovations customized their Q-LS™ Series of Uninterruptible Power Quality™ (UPQ™) technology to meet these and the precise needs of Hydril. This UPQ system aids them in maintaining their world class, high-pressure, high-temperature performance. The systems provide quality power to the BOPs and their surface controls.

Advantages of the Q-LS Series

Customizations

To meet Hydril's needs A/B input switches and IP54 drip protection are installed in the units.

Hydril

INDUSTRY SERVED

Oil Exploration and Research

CHALLENGE

Hydril needs the highest level of constant, reliable power for blowout preventers (BOP) in order to function with precision.

SOLUTION

The Q-LS™ Series provides quality power for high pressure, high temperature operations.

CUSTOMIZATIONS

- A/B Input Switches
- IP54 Drip Protection

ADVANTAGES

- Longer Backup Times
- No Current Inrush
- Custom Input and Output Requirements
- Protected from User Error
- Enhanced Diagnostics & Indicators

Longer Backup Times

Less energy is spent in the conversion and generation processes. Making for a 10% longer run and backup time, using the same amount of battery capacity.

No Current Inrush

UPQ technology protects input sources and circuits, minimizing power fluctuations, harmonics, and faults induced back into the feed circuits.

Custom Input and Output Requirements

The system can deliver multiple voltage output levels, depending on the need.

Protected from User Error

UPQ technology identifies installation and operational errors, and then autocorrects and inhibits improper use or connectivity.

Enhanced Diagnostics and Indicators

UPQ technology identifies existing and potential problems in printed circuit modules. LED indicators light up and alert the technician to a system fault.

Conclusions

“As the industry leader in blowout prevention, Hydril prides itself on providing products and services that are the best in the industry, are safe, reliable, and meet our customer’s needs. Power Innovations’ products help us to ensure the highest levels of quality and reliability,” said John Sacco, Lead Electrical Engineer for Hydril.

Competing Technology

In the past, the number one issue in dealing with power was backup power for equipment in the event of power failure. The basis of typical UPS systems and generators on the market today is still backup power; however, electrical equipment requires a new level of power quality and management tools that extend and enhance this most critical resource.

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).

Today, Power Innovations’ UPQ systems, coupled with its UPQnet-agent II™ IP management tools, assist organizations of every size in addressing the key issues surrounding power management.

Power Innovations’ long term strategy includes fully integrated power management and control, storage, and generation for total power independence. Power Innovations’ line of power management products is currently being marketed. The company is involved in the development of a spectrum of solutions for power storage. Currently Power Innovations offers a variety of alternative generation options. In the near future, Power Innovations plans to introduce the PowerWell™, a revolutionary solution to provide green renewable energy generation for homes and business, with or without grid interaction.

“As the industry leader in blowout prevention, Hydril prides itself on providing products and services that are the best in the industry, are safe, reliable, and meet our customer’s needs. Power Innovations’ products help us to ensure the highest levels of quality and reliability.”

- John Sacco
Lead Electrical Engineer
Hydril



Contact Us:

Phone: 801.785.4123

Fax: 801.785.6999

333 South 520 West

Lindon, UT 84042

www.power-innovations.com

© copyright 2007 Power Innovations



Power Innovations
INTERNATIONAL, INC.