



eBay, Salt Lake City, Utah, USA

Four of the most important needs for a data center are **Reliability, Cost, Energy Efficiency and Environmental Friendliness - and FlowCon PICV Technology supports these needs.**

The eBay data center south of Salt Lake City, Utah, is a top modern facility despite the fact that the building is from 2013. It shows foresight in designing, building and operating data centers and is built and operated to LEED® Gold standard. Contrary to convention, it does not rely on the electrical power grid or mechanical chillers for cooling. There is no raised floor and there aren't any uninterruptible power supply (UPS) systems or generators. It is powered by electricity generated on-site, and the grid is the backup plan. Not only is this eBay data center the biggest on-site data center deployment of Bloom Energy fuel cells and solar generation, but it was also in 2013 the only data center in the world powered this way. Instead of pushing cold air from underneath a raised floor through perforated tiles, computer equipment cabinets are cooled directly by plate heat exchangers bolted onto the back of the racks. Cooling capacity is produced by cooling towers, cooled naturally by outside air, and supplemented by an evaporative cooling system. And on site FlowCon PICV-technology is installed as FlowCon SM valves through Griswold Controls providing accurate flow balance and temperature control.

First phase provided 4.8MW of critical load and 1500 m² and second phase 6MW. The site has the capacity to eventually expand up to 18MW.

The data center supports all eBay businesses: eBay marketplace, PayPal, StubHub and eBay Enterprise.

Application

The installed pressure independent control valves, FlowCon SM valves, help reduce energy costs and increase occupant comfort. Conventional control valves often result in overflow to some coils and underflow elsewhere in the system. To avoid underflow, excess water is pumped around the system to compensate for the control valves' inaccuracy. Consequently, actuators on conventional control valves also must cycle more often to compensate for pressure changes in the system that inevitable will impact the flow. By precisely controlling the flow of water to each coil, the PICVs enable energy savings, increase available plant capacity, minimize capital expenses necessary to acquire additional capacity, and simplify system design and control. With the FlowCon PICV solution all four essential data center needs of reliability, (operation)cost, energy efficiency and environmental friendliness are obtained. Again, we are proud to say: Your Environment - Our Commitment.

Project Configuration:

Project name: eBay South Jordan
Architect: Winter Street Architects
Consultant: AHA Consulting Engineers
Contractor: DPR Construction
Valve model: FlowCon SM
Application: New building
Date of inauguration: 2013



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