Rockwell Automation – Variable Frequency Drives at Mequon Site

Challenge

Rockwell Automation provides industrial automation control and information systems and services that help manufacturers achieve a competitive advantage in their businesses. The company, headquartered in Milwaukee, employs about 19,000 people. Rockwell Automation set a goal in 2010 of reducing energy usage across the company by 3%, normalized to sales.

The Mequon facility used a higher percent of energy on heating, ventilation and air conditioning (HVAC) than other plants. The facility also has a long history of successfully reducing overall energy use through changes in behavior and equipment upgrades. The challenge to the Mequon facility was how to optimize an already greatly reduced energy footprint.

Strategy

Rockwell Automation installed its own FanMaster variable frequency drives (VFDs) on three HVAC rooftop units in May 2010. FanMaster drives convert constant-volume HVAC air handlers to variable air flow without changes to existing mechanical or control systems. Once the optimized conditions are put in place, the system is highly automated, which increases the likelihood that the system operates under optimal conditions.

Results

Since they were put in place, the VFDs have led to about $20,000 in energy cost savings (an equivalent to over 250,000 kW of energy). Moreover, less maintenance is required, since the fans experience less wear. The FanMaster units save energy during both the cooling and heating seasons.

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