

ARTICLE

# ABB to protect against voltage sags in the food and beverage industry



Active Voltage Conditioning (AVC) technology bound for China to protect power in critical production process

A leading dairy company has purchased a 750 kVA PCS100 AVC-40 to protect the bolting and sterilization machines in their production line. The technology will help solve the voltage sag problem they are facing, which has caused complications for numerous years.

Any power event or interruption is a threat to the sterile environment of a dairy production line. Costs can be significant with the disposal of wasted product and the extended time it can take to clean the system prior to recommencing production. Increased automation means conveyors of increased speed are being used. When bottling interruptions are usually caused by voltage fluctuations, which causes sensors, drives or controls to malfunction. Beside the physical damage to product or tools, it can also cause time-outs for cleaning or repair work.

## Background

Following the trend of higher automation level and increasing demand of production continuity in dairy industry, stable power quality has become a major lever for China's largest dairy producer, to enhance its operational efficiency.

To this end, the company has decided to upgrade and transform its production line in order to ensure that important loads are immune from voltage sag with a power protection device.

## The total solution

ABB's solution to insure that the dairy is protected from voltage sags is the PCS100 AVC-40. The AVC will be used to protect the critical loads, which include bolting and sterilization machines. The customer selected ABB over its competitors due to a better service offering.

"ABB's active voltage conditioner has typical applications including high-speed bottling, packaging, dairy processing and other food and beverage production lines," said Kenny Huang, Sales Manager of ABB's Power Conditioning business, China. "For this project, ABB provided an AVC demo for testing on the customer site for several months and finally we got the breakthrough order. Our relentless execution convinced the customer of ABB's products and service capability, and then they finally chose our solution."

The PCS100 AVC-40 is a high performance power electronic system specifically designed for industrial and large-scale commercial applications. It responds instantly to power quality events by correcting voltage sags, phase angle errors, unbalance and surges, while providing continuous voltage regulation. At the time of voltage sags and swells, the PCS100 AVC-40 can respond within milliseconds and inject up to 40 percent correction voltage.

Thanks to its compact design, it can be easily installed in a machine room or other confined spaces, reducing the demand for additional floor space in the course of design and construction. Moreover, it is featured with a redundant internal bypass system that ensures continuous power supply to loads from utility grid.

### Food and Beverage

ABB's power protection product portfolio consists of a comprehensive range of UPSs and power conditioners that can protect a food and beverage facility from disturbances in the

electrical supply. With power protection from ABB in place, food and beverage product quality, safety and production can be maximized, ensuring the greatest utilization of your facility and enhanced product quality to the customers.

To find out more about ABB's power protection solutions:

Web: [www.abb.com/ups](http://www.abb.com/ups)

Email: [powerconditioning@abb.com](mailto:powerconditioning@abb.com)



### Additional information

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