



Smooth Operation at Dairy Production in Zanzibar

Location:

Zanzibar, Tanzania

Segment:

Power quality

Problem:

To ensure that high-quality power is continuously available for the milk production processes at the plant operated by Azam Dairy Products, a Bakhresa Group subsidiary

Solution:

Power Xpert 9395 UPSs, which were selected for this critical application because of the local availability of expert support and service and the technical superiority of the products

Results:

Eaton UPS equipment with double-conversion technology provides the best available protection against all types of power quality problems and offers class-leading efficiencies of up to 99 percent

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Background

The Bakhresa Group, one of the leading food processing enterprises in Tanzania, is building a new state-of-the-art flavoured milk production plant in Zanzibar, which will be operated by its subsidiary Azam Dairy Products. A key challenge faced by the Bakhresa Group in successfully running its plant is the incredibly variable supply of reliable power to the facility.

The demand for electrical power in Tanzania frequently exceeds the available generating capacity, which means that power outages and voltage reductions are common. To help minimise the impact of these power problems, Bakhresa Group has specified standby generators for its new Zanzibar plant to provide power for the production processes during periods when no mains supply is available.

Challenges

However, the generators do not provide a complete solution as they take several minutes to start up when the mains supply fails. Even such a short interruption of power to the flavoured milk production line means that the whole batch currently being processed must be discarded, resulting in product waste and a loss of both production and profit.

For this reason, Bakhresa Group sought a UPS installation to complement its generator standby facility. This will be arranged so that, in the event of mains supply failure, the UPS will supply power to the production processes until the generators have had time to start up and take over the load. In this way, the production line will be powered continuously and the risk of product loss due to power failures will be greatly minimised.

"We were particularly impressed by the high efficiency of the Eaton UPSs as well as by the company's commitment to providing comprehensive local service support,"

*Naimesh Kansara,
General Manager Bakhresa Group*



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Solution

In this application, a UPS capable of handling a load in excess of 500 kVA and of providing a three-phase output was needed. To find the most suitable product, Bakhresa Group approached Eaton and the local Eaton distributor, SCI Tanzania Limited, with which the group had had previous positive experiences, and also a number of other UPS suppliers.

After carefully examining and comparing the products on offer, Bakhresa Group decided that a Power Xpert 9395 UPS rated at 550 kVA was by far the most suitable choice. The principal reasons behind this decision were the easy access to local technical support provided by the expert engineers at SCI Tanzania, all of whom have received comprehensive training from Eaton, and also the technical benefits offered by the Eaton products.

Power Xpert 9395 UPSs offer class-leading efficiencies of up to 99 percent and they use double-conversion technology to provide the best available protection against all types of power quality problems. They also have an exceptionally high power factor of 0.9 allowing them to deliver significantly more useful power than other units with same nominal rating.

Further benefits particularly relevant to this application include Eaton's ABM battery manage-

ment technology, which has been proven to extend battery life by up to 50 percent compared with conventional float charging systems, and support for Eaton's unique HotSync paralleling technology, which allows the UPS installation to seamlessly grow with future milk plant expansions. In addition, the small footprint of the units and their lightweight yet robust construction has helped to reduce transportation and installation costs.

Results

"We were particularly impressed by the high efficiency of the Power Xpert 9395 UPSs," said Naimesh Kansara, General Manager, Bakhresa Group, "and also by Eaton's commitment to providing comprehensive local service support delivered by well-trained engineers. In the end, it was easy for us to choose the Eaton products, as they are such a good match for our needs."

Stavros Spyropoulos, Eaton Regional Manager in East Africa, said, "Not only does Eaton supply innovative best-in-class UPS products, we've also invested a lot of time and effort into ensuring that we offer an unbeatable service in the East African market. We're delighted that these factors have been recognised by Bakhresa Group, and we look forward to a long and fruitful partnership between our two organisations."



Power Xpert 9395