



Eaton's Power Packed Performance in Alpla India

Location:

Sitarganj, Uttarakhand
Baddi, Himachal Pradesh
Hyderabad

Segment:

Manufacturing

Problem:

Irregular and poor quality utility power damages critical manufacturing machines and tools

Solution:

The energy-efficient Eaton 9395 UPS provides backup power and scalable battery runtimes in a small footprint for critical manufacturing applications

Results:

Eaton UPS installed in three facilities of Alpla India carry all equipment irrespective of power incidents



Alpla India

Rajen Shah
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"We have not had downtime or systems' damage ever since we installed Eaton UPS and we are absolutely confident that the Eaton UPS will deliver impeccable uptime,"

*Rajen Shah
Vice President - Engineering, Technology & Operational Excellence*

Background

As the international technology leader in the field of plastic packaging, Alpla provides its clients with innovative, quality products.

Alpla manufactures plastic packaging solutions - bottles, jars etc.; especially for FMCG companies like Cadbury, Reckitt & Beckinser, P&G, Zandu Pharma, Emami, Unilever.

Challenges

Alpla uses K-TEC Injection Molding machines (manufacturing double colored products) with a special designed mould in all its plants to manufacture plastic packaging products.

K-TEC, one of the most productive injection molding machines available on the market today, is known for exceptional precision and repeatability, fast cycle times, high injection rates and pressure and parallel functions.

In the areas where Alpla India's plants are located, power cuts are frequent and last for a minimum 5 mins to many hours. Power failures and power incidents increase the chances of breakdown of Alpla's machines and the mould tool.

A power incident can be a Power Failure, Power Sag, Power Surge to Under voltage, Over voltage and onwards to Switching transients, Line Noise, Frequency Variation and Harmonic Distortion. These power incidents can lead to material wastage and productivity

loss leading to a loss of business and loss of reputation.

Mr. Rajen Shah, Vice President - Engineering, Technology & Operational Excellence, Alpla India, says, "Our plants run on 80- 90% capacity at all times. We needed a power quality solution with very high availability. For us downtime translates into huge monetary losses. Continuous and Quality power is very essential for Alpla otherwise the Mould tool and K-Tec machines get damaged. The tools are very expensive and replacing them takes a long time."

Eaton 9395 offers the highest reliability and availability with Powerware® Hot Sync paralleling, superior battery management, inherent redundancy and a scalable architecture that adapts to increasing power requirements.

Solution

With prospects of huge production losses staring them in the face, due to daily power incidents, Alpla India started looking for an efficient, cost effective UPS with over 90% availability.

"Initially we had thought that genset solution coupled with utility power would be sufficient to service our needs. But the low quality and inconsistency of utility power supplied, made us do a major rethink," Rajen says.

Alpla started the sourcing process for a UPS suitable to their unique requirements.



Powering Business Worldwide

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Choosing Eaton

Eaton scored where others didn't. It offered a low TCO (Total Cost of Ownership) product, with cost of backed service support, thereby making it a superior solution amongst contemporaries.

The energy-efficient Eaton 9395 UPS provides backup power and scalable battery runtimes in a small footprint for critical manufacturing applications.

Eaton 9395 efficiency was showcased to Alpla through Eaton customer sites where the product was working successfully.

After careful evaluation, Alpla decided to go for Eaton 9395 UPS with two units of 550 kVA each, at Sitarganj initially.

Rajen says, "We were impressed with 9395 features like ESS, its efficiency and modular solution."

Eaton 9395 Energy Saver System (ESS) dramatically increase UPS efficiency without sacrificing protection, all the while reducing energy costs and putting money back into the budget. ESS technology enables UPS efficiency to reach an impressive 99%. It also allows the UPS to switch between three configurable operating modes.

Eaton did a Power audit and load study in Alpla facility before suggesting the appropriate power solution.

Three units of Eaton 9395 550 kVA UPS, are now powering Alpla's K-tec machines at Sitarganj and Baddi.

Eaton Castle UPS, two units of 30 kVA each, are backing up Alpla's IT infrastructure and machines in Test Labs at Baddi and Hyderabad.

Installation

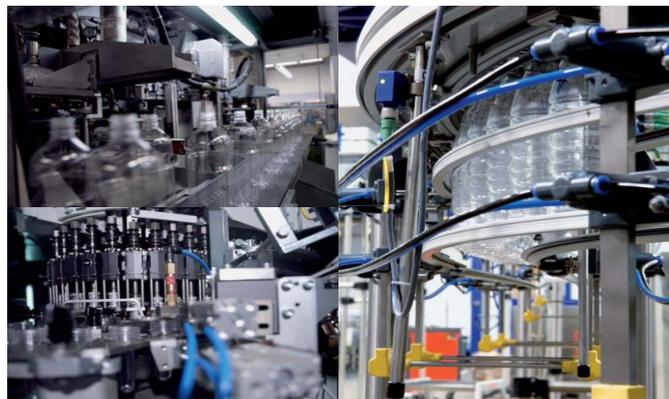
The installation process was smooth. Eaton 9395 not only reduces installation time and it also reduces costs with small footprint and flexibility to install against walls, using top- or bottom-entry cabling. Moreover, front-panel access for all services and operation increases serviceability and reduces repair time. "We were surprised with the ease of installation which was completed in good time, and with minimum disruption in our running operations," says Rajen.

External Audit

Alpla India got an external audit done on Eaton 9395 550kVA UPS installed in their Sitarganj facility from Zera, a German company considered a pioneer in meter test equipment.

ZERA was founded in 1920 and specializes in electricity meter testing. Many of its customers are electric supply companies and government metrological institutes.

The results announced by Zera on 9395 installed in Sitarganj were as follows:



| | | | |
|---------------|---------------------|--------------------------|--|
| ZERA India | WERKS- Prüfgeschein | Seite 3 von 3 Page of | |
| | TEST REPORT | Prüfgeschein Nr. | Zera(I) /10- Test Report No. 11/056 |

- Measurement taken in Energy Saving Mode of UPS

| Energy logged at Input of UPS (in kWh) | Energy logged at Output of UPS (in kWh) | Efficiency (in %) |
|--|---|-------------------|
| 5893.93 | 5857.45 | 99.38 |

- Measurement taken in Online Mode of UPS

| Energy logged at Input of UPS (in kWh) | Energy logged at Output of UPS (in kWh) | Efficiency (in %) |
|--|---|-------------------|
| 100.06 | 94.70 | 94.64 |

Alpla was delighted to see the results of this efficiency test, and found its decision to install Eaton UPS validated.

Operation

Since installing the UPS', with India's nascent utility power conditions, Alpla India experiences around 8-10 power incidents besides power failure in a day.

These incidents can lead to major damage in sensitive and expensive equipment apart from damaged production and man-hours. But Eaton UPS installed in three facilities of Alpla India carry all equipment irrespective of incidents. "We have not had downtime or systems' damage ever since we installed Eaton UPS and we are absolutely confident that the Eaton UPS will deliver impeccable uptime," according to Rajen.

After Sales Service

Alpla was very particular about insisting on a proactive service support in real

time. Their production processes can derail from power incidents and this affects productivity and onward sales. "We have got an excellent and proactive service support from Eaton team, and find them quite flexible in their approach," says Rajen.

Expansion Plans

"Alpla plans to spend about Rs. 50-100 cr for capacity expansion in this year and next, across India. For this, our power back up equipment needs to be foolproof. We are happy to see that Eaton 9395 has a flexible, upgradeable architecture for future expansion needs. We are also evaluating Eaton products for our South Asia and South East Asia operations," Rajen comments.

To cater to its expansion plans, Alpla sought an efficient and reliable solution which could expand with the needs of the company. "We wanted a scalable solution which we could rely on, for our constant and critical system needs."



Conclusion

Alpla India's systems and equipment are safe from utility power damage. They are now able to:

- Provide the highest level of availability for their critical systems at all times
- Benefit from cutting-edge technology, with the UPS's advanced design
- Energy Saver System (ESS) dramatically increase the UPS efficiency without sacrificing protection, all the while reducing energy costs and putting money back into the budget.
- Achieve redundancy for enhanced reliability
- Easily maintain and service the UPS solution

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