



## Global consumer goods company chooses Power Xpert® UX turnkey solution

**Products:**

Power Xpert® UX

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**Application**

One of the Shanghai area manufacturing locations of a worldwide leader in consumer goods needed to replace their incoming medium voltage switchgear to improve reliability and safety. They chose to use Eaton turnkey engineering services and Eaton's new Power Xpert UX medium voltage switchgear to minimize service disruption and insure the safety and reliability of the new system.



Eaton's range of SF<sub>6</sub> free switchgear for Medium Voltage



An Eaton Green Solution

**Customer requirements**

The existing medium voltage switchgear feeding the manufacturing facility was of older fixed breaker designs and did not provide the ease of maintenance or reliability that the facility required to maintain production. An additional concern was worker safety when near the equipment due to the high arc flash available and non-arc contained design of the equipment. Another requirement was an upgrade to the protection relays and communications. The existing equipment was electromagnetic designs and did not provide the precise controls, monitoring and communications needed for reliable service operation. The customer had a three day shutdown planned to do overall facility maintenance and needed a reliable turnkey service provider that could provide state of the art medium voltage equipment and coordinate the complete install, commissioning and planning with the local utility for a successful, on time installation.

tion providers were reviewed and Eaton was awarded the contract based on the complete solution and the experience of the electrical service engineers that would be performing the work.

To perform the work, the team at Eaton Electrical Services and Systems coordinated the design and installation schedule with the local power authority and installation sub-contractor. The thorough design review and schedule insured all details and needs were identified and planned in advance for a successful installation. Having Eaton's power systems experts coordinating the equipment design and communicating the details of the project to all stakeholders was critical to the success of the installation.



**Turnkey services from Eaton's electrical services and systems**

An important selection criterion in this project was finding a supplier with expertise, experience in providing turnkey solutions and most importantly a track record of success. A handful of international solu-



Powering Business Worldwide



### Safe and reliable Power Xpert UX medium voltage switchgear

Replacing the existing switchgear with the best choice of design for reliable and safe medium voltage equipment was important to the manufacturer's final solution. The equipment serves a continuous production process and downtime can disrupt supplies resulting in lost profit and market share; as a result, reliable equipment that requires minimal maintenance while offering high safety is important to this global manufacturer.

Innovative in its design, field-proven with over forty years of vacuum circuit breaker production and fully third-party certified to both GB/DL and IEC standards, Eaton's Power Xpert UX range of compact air insulated removable medium voltage switchgear leads the industry in safety, reliability, performance and sustainabil-

ity. The design has been third party type tested to the latest standards including internal arc containment classification of AFLR to provide minimal risk to employees in the unlikely event of an internal arc. Additionally, the robust cubicle design together with the long life W-VACi circuit breakers insures reliable operation.

The final part of the equipment solution is the protection, monitoring and communications. Eaton's power experts worked with the facility to apply Eaton's DT-3000 protection relays and Power Xpert metering allowing state of the art protection, control and monitoring of the complete system.

### Conclusion

The local manager of the facility was delighted with Eaton's turnkey solution. Eaton's power experts managed the project design and installation details and the installation was commissioned ahead of schedule. The new incoming power system provides the highest safety levels available in the market place and the onsite training for the site employees insures knowledgeable ongoing operation. Additionally, the electronic protection and communications provides precise coordination as well as monitoring and communications to proactively manage the system.

### A Breadth of Solutions, a Heritage of Innovation

As one of the world's leading suppliers of electrical control products and power distribution equipment, Eaton's electrical business is backed by 100 years of history and a dedicated pool of alliances and partners. Eaton's past experience has resulted in over 25,000 innovations in distribution and industrial control products, each incorporating

industry-leading technologies that provide the highest value to our customers. With a proven track record of completing everything from complex, custom, industrial and commercial applications, Eaton is clearly the best choice for electrical design, build, and support service requirements.



Power Xpert® UX is modular in construction, ensuring that any panel combination and rating can be applied on a system.

In addition, there is no limit to the number of panels that can be used in an installation, as several sections can easily be connected together. Because the panels can be quickly assembled and connected, flexible commissioning of the switchgear is an added benefit.

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