Eaton keeps your data center online for the long term

As computing power demands increase, the need for "always on," reliable storage is critical. The challenge for any data center isn't just to create the server to store the data, it's also to keep the server running at all times to avoid any data loss or emergencies for customers, even during a power outage. In doing so, data center operators have elected to require local power generation to ensure long term non-grid power supply.

With local generator or fuel cell power generation tied into the power distribution scheme, the backup time required of the UPS energy storage reduces from hours or minutes to seconds. This backup time measured in seconds is to bridge the gap from when utility power drops to when the long term, local power generation is ready to handle the load requirements.

UPS backup power solutions have traditionally meant low cost, high-maintenance batteries, or a less efficient mechanical flywheel with spontaneous, unplanned maintenance events. Recent developments in various battery chemistries offer higher energy dense products, but still have periodic maintenance and face restrictions on the environments in which they can be installed. Batteries remain the number one component identified as a cause for UPS downtime[1]. The higher energy density may not be advantageous for the short backup times that are more frequently being requested.

Flywheels market similar features as supercapacitors including long lifetimes and high-power density. But, reports have been made about the immense costs of unplanned events requiring lengthy repairs above and beyond the regular maintenance and component replacements required to operate flywheels..

Eaton's XLM supercapacitor modules offer a backup power solution that is highly reliable, lightweight, and virtually maintenance-free. With a low total cost of ownership and greater scalability, data center operators get a greater return on their assets.

The XLM module features 23 high power electrochemical double layer capacitor (EDLC) cells paired in series along with proprietary materials to match front terminal batteries that OEM and service technicians are familiar with.

Eaton's supercapacitors offer lifetimes up to 20 years. With wide operating temperatures from -40 °C to +85 °C, data center owners and operators reduce their cooling costs by raising their average ambient temperature. Not only does this reduce cooling energy costs but also the potential to reduce overall upfront HVAC equipment costs.

The XLM supercapacitor modules help keep data centers in operation without the loss of data or damage to equipment caused by power quality problems. Integrated with a UPS, the XLM modules reduce the total cost of ownership, from floor space and weight factors to reduction in operations and maintenance costs. The XLM is an optimal energy storage product for individuals desiring compact, low-maintenance bridge power.

1: eaton.com

Eaton
Electronics Division
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com/electronics

www.eaton.com/supercapacitors

Powering Business Worldwide

Printed in USA
Publication No. 10837 BU-MC18073
October 2019

Follow us on social media to get the latest product and support information.