



Eaton keeps healthcare facilities running when you need it most



Diagnostic and critical equipment such as MRIs, CT-Scans and other monitoring equipment are vital tools for doctors to accurately diagnose patients, monitor health, and help determine the right treatment plan. Hospitals and healthcare clinics rely on these tools every day.

So, what happens when the hospital utility power drops out or requires additional power? Eaton's XLM supercapacitors allow doctors help their patients by providing reliable peak and backup power to healthcare facilities, where even a short downtime can have an immense negative impact.

To help ensure that interruption of these critical loads is minimized, there are relevant codes and standards in the United States that must be

met. NFPA 110 defines power restoration and capacity requirements for emergency systems. One of which is a 10 second or less restoration, or a Type 10 designation, which all but requires on-site, long-term secondary power supply, such as a diesel generator. NFPA 70, otherwise known as the National Electrical Code (NEC), requires Type 10 power restoration for systems essential for human life. NFPA 99, governing healthcare facilities, defines which loads are classified as life safety loads and requires Type 10 restoration.

XLM supercapacitor modules are designed to provide backup energy to uninterruptible power supplies (UPS) for critical applications during power loss, from brownouts to full outages. The XLM is ideal to bridge the short-term gap between the power outage and code required, long-term secondary source, giving doctors and healthcare facility managers the confidence that essential

diagnostic tools are always accessible.

In addition to being reliable energy storage, the XLM supercapacitor module offers a low cost of ownership for healthcare facilities that can help defer large capital expenditure when high power requirements cannot be met by the existing power distribution system. It offers a long operating life and eliminates battery or flywheel maintenance, control and replacement costs.

Eaton's XLM supercapacitor modules are high-reliability, high-power density, ultra-high capacitance energy storage devices utilizing electric double layer capacitor (EDLC) construction combined with proprietary materials and processes. They feature low ESR for high power density along with environmentally friendly materials, as well as being Reduction of Hazardous Substance Directive (RoHS) compliant. This results in an inherently safe construction, a

key consideration for healthcare facilities. The XLM modules are maintenance-free with lifetimes up to 20 years, equal to or longer than the UPS, and can operate in temperatures from -40 °C to +65 °C.

Critical care beyond backup power

A healthcare facility selected XLM modules paired with a UPS to provide 20 kW of backup power for two minutes or 164 kW for 13 seconds. Additionally, the same XLMs provide 364 kW for two seconds to support CT scan pulses while the generator is providing power. This multipurpose system helped defer additional investment, generator stress and retrofit in other, more expensive distribution equipment while also providing low maintenance operations for 20 years.

Having access to critical medical equipment and care when needed most provides peace of mind to doctors, and ultimately to patients. Eaton is the hidden power in healthcare facilities.

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