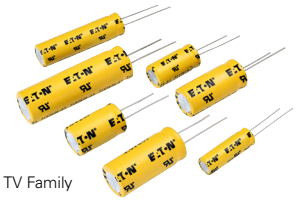
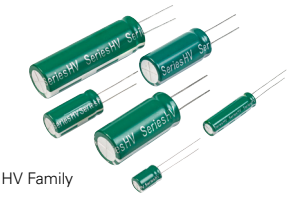
Use Case
Smart Meter

Energy Market



TV Family



HV Family

Eaton HV and TV Supercapacitors Power Delivery of Smart Metering

The rise in "smart" metering has ushered in a new era for utility companies. Smart meters enable gas, water and electricity utilities to monitor consumers' consumption more precisely, providing insight for technology and pricing decisions and empowering their customers to make informed choices in home energy use. These digital meters also can inform a company of a power outage or remotely switch electricity services on or off. And in times of power or equipment failure, supercapacitors provide enough backup power to "push" critical consumer usage data to utilities, potentially saving companies significant revenue. Making sure this technology is powered efficiently and reliably is critical, and Eaton HV and TV supercapacitors play an important role in keeping the lights, gas and water on.

Eaton HV and TV supercapacitors are high-reliability, high-power, ultra-high capacitance energy storage devices that are ideal for smart metering. Utilizing electrochemical double layer capacitor (EDLC) construction, combined with proprietary materials and processes, allows Eaton to offer a wide variety of capacitor solutions tailored to applications for backup power, pulse power and hybrid power systems. These supercapacitors can be applied as the sole energy storage or in combination with batteries to optimize cost, lifetime and run time.

The product lines feature an ultra-low ESR for high power density with environmentally friendly materials for a green power solution. Both lines of supercapacitors can withstand most indoor & outdoor environments with operating temperatures of -40 °C to +85 °C. Supercapacitors help reduce maintenance requirements and provide a long life and cost-effective energy storage option.

Thanks to supercapacitors such as Eaton's, today's utility companies and consumers are making smarter, more responsible and cost-saving decisions on energy usage. Most importantly, everyone benefits from consistent and reliable delivery of gas, water and electricity.

HV Supercapacitors

Eaton's HV family offers high power capability in compact package sizes. The high capacitance of 1 F to 100 F enables long-term power backup and high peak current capability. These supercapacitors offer an ultra-low ESR (levels as low as 12 mΩ) that ensures minimal voltage drop during peak current demand, increasing the amount of power that can be delivered to the load. The HV supercapacitors are configurable in series and parallel, increasing the voltage rating and energy storage capability.

TV Supercapacitors

Eaton's 3-volt TV supercapacitors enable higher performance servers, longer operating life or lower cost designs for many industrial electronics. The TV products offer a 20 percent increase in stored energy and peak power density by increasing the operating voltage and lowering the ESR. As a result, the usable energy can increase up to 70 percent. The TV family provides energy storage for backup power, ride through, RF radio transmissions and other pulse power requirements.

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