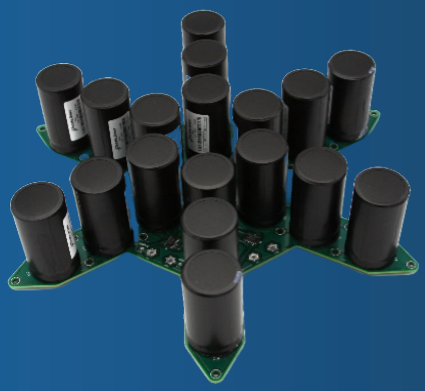
Tecate Group

Power, Performance, Solutions

Military/Aerospace Solutions

Military and aerospace systems demand high-performance components that offer exceptional reliability, minimal maintenance, and the durability to withstand harsh environments. For years, Tecate Group's ultracapacitors, lithium-ion capacitors, and custom energy-storage solutions have been trusted in these mission-critical applications. When performance and reliability are nonnegotiable, you can count on Tecate Group's proven technologies to deliver.



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Avionics

Ultracapacitors and lithium-ion capacitors offer key advantages for avionics systems by providing rapid, reliable bursts of power to support critical functions such as data processing, communication, and emergency backup. Their ability to handle high peak loads helps stabilize power delivery and reduce strain on the primary electrical system, enhancing overall system efficiency. With fast charging, a long cycle life, and excellent performance in extreme temperatures and altitudes, ultracapacitors are ideal for the demanding conditions of aerospace environments. They also require minimal maintenance, reducing costs and increasing equipment availability. This makes ultracapacitors a dependable energy solution for modern avionics applications.

Munitions

Ultracapacitors provide critical benefits for munitions guidance systems in smart bombs by delivering the instant, high-power energy needed for precise targeting and control. Their ability to function reliably in extreme temperatures and high-vibration and high-G environments ensures consistent performance in demanding mission profiles. Unlike traditional batteries, ultracapacitors have a long shelf life and can be stored for extended periods without significant energy loss, making them ideal for military readiness. They also recharge quickly and require no maintenance, reducing logistical complexity. These features make ultracapacitors a highly dependable power source for advanced munitions guidance systems.

Critical Systems Power

Ultracapacitors are an ideal solution for critical military power systems, offering rapid energy delivery for backup power, pulse loads, and system stabilization. Their high power density and fast response time ensure reliable operation during sudden power demands or failures, which is essential in mission-critical scenarios. With a long cycle life, minimal maintenance needs, and excellent performance in extreme environmental conditions, ultracapacitors reduce downtime and increase system readiness. They also alleviate strain on primary power sources, improving overall system efficiency and longevity. These advantages make ultracapacitors a trusted component in the military's most demanding power applications.

Integrated Vehicle Systems

Ultracapacitors deliver key advantages in military vehicle systems by providing high-power bursts essential for cold-engine starts, especially in extreme environments where batteries struggle to perform. Their rapid discharge and recharge capabilities make them ideal for hybrid-electric drivetrains, where they support acceleration, regenerative braking, and load balancing, improving overall energy efficiency and vehicle responsiveness. Ultracapacitors also enhance the reliability of telematics systems by supplying stable backup power during voltage fluctuations or power interruptions. With a long cycle life and the ability to operate in harsh temperatures and conditions, they reduce maintenance and increase system uptime. Additionally, their lightweight and compact design supports modern vehicle electrification goals without compromising space or performance. These features make ultracapacitors a vital energy solution for advanced, mission-ready military vehicles.

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