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Products

Thermal capacitor

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AllCell's pulse change material (PCM) thermal management technology surrounds lithium-ion cells, storing waste via latent heat during the solid-to-liquid phase change. The PCM can be a stand-alone thermal management system or can act as a thermal capacitor when combined with an active system to absorb and dissipate heat generated by the battery pack. It absorbs shock and vibration when used as a packaging material for the cells. High thermal conductivity and a narrow melting band create temperature uniformity within a pack of less than 3°C (37°F), claims the company. The quick heat removal combined with passive temperature control can help prevent thermal runaway between cells within the pack. The solution improves the safety, reliability, and performance of hybrid, plug-in hybrid, and electric vehicles with lithium-ion battery packs with minimal effect on system weight and volume, according to AllCell.