

Working principle of battery cabinet liquid cooling system





Overview

What is a liquid cooling Battery Cabinet?

At the heart of this revolution lies a critical piece of engineering: the Liquid Cooling Battery Cabinet. This technology is not just an accessory but a fundamental component ensuring the safety, longevity, and peak performance of modern energy storage solutions, moving us toward a more efficient and secure energy future.

Why is liquid cooling important for battery thermal management?

Motors, supercharging, fast charging, and other related tech are rapidly innovating. They bring big challenges for battery thermal management. Passive methods, like air cooling, can't meet the new demands for battery heat dissipation. This need led to the adoption of liquid cooling. It is a better way to get rid of heat.

What is a liquid cooling system?

Liquid-cooled systems provide even temperatures in the whole battery pack. They avoid local overheating. This extends battery life and stabilizes performance. Liquid cooling systems are quieter than fans in air-cooled systems. They add to the comfort of electric vehicles.

How is a battery cooled?

Batteries are cooled by a liquid-to-air heat exchanger that circulates cooling fluids through the battery cells. The coolant is a mixture of water and ethylene glycol (similar to antifreeze). This system transfers heat from the battery cells into the air using convection or forced airflow.



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