PDEOZE PowerContainer

Immersed liquid-cooled energy storage inverter

Overview

What is immersion cooling?

Immersion cooling, also known as direct liquid battery cooling, has emerged as a highly efficient method for enhancing the thermal performance and energy efficiency of batteries.

Does immersion cooling technology improve thermal management of electronic devices?

This study systematically reviews advancements in immersion cooling technology for thermal management of electronic devices, encompassing the characteristics of immersion coolants, liquid-cooled architectures, enhancements in immersion cooling, and contemporary engineering applications.

What are the different types of immersion cooling systems?

Immersion cooling systems can be categorized into two categories: single-phase liquid cooling and two-phase liquid cooling. In a single-phase immersion cooling system, the dielectric fluid absorbs the heat released by the batteries without undergoing any phase change.

What is a liquid cooling system?

The liquid cooling system comprise a condenser connected with external liquid loop (The coolant flow rate was kept at 8 L/min), a battery tank equid with a pressure meter (ZSE30AF, China), battery charge/discharge equipment (AODAN CD1810U5, China), a data acquisition instrument (FLUKE 2638A, USA), and an environmental chamber (GZP 360BE, China).

Can immersion cooling improve China's Energy Security?

Its operation marks a successful application of immersion cooling technology in new-type energy storage projects and is expected to contribute to China's energy security and stabilization and its green and low-carbon development.

Developed by China Southern Power Grid (CSG), the plant has a capacity of 70 megawatts/140 megawatt-hours.

Why are liquid cooling systems better than air cooling systems?

In contrast, liquid cooling systems offer superior energy and thermal efficiency due to the significantly higher thermal conductivity and specific heat capacity of liquids than air .

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