



BUHLE POWER

# St Johns Liquid Cooled Energy Storage Module





## Overview

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What is a 5MWh liquid-cooling energy storage system?

The 5MWh liquid-cooling energy storage system comprises cells, BMS, a 20'GP container, thermal management system, firefighting system, bus unit, power distribution unit, wiring harness, and more. And, the container offers a protective capability and serves as a transportable workspace for equipment operation.

Are liquid cooled battery energy storage systems better than air cooled?

Liquid-cooled battery energy storage systems provide better protection against thermal runaway than air-cooled systems. “If you have a thermal runaway of a cell, you’ve got this massive heat sink for the energy to be sucked away into. The liquid is an extra layer of protection,” Bradshaw says.

What is the difference between air cooled and liquid cooled energy storage?

The implications of technology choice are particularly stark when comparing traditional air-cooled energy storage systems and liquid-cooled alternatives, such as the PowerTitan series of products made by Sungrow Power Supply Company. Among the most immediately obvious differences between the two storage technologies is container size.

What are the functions of the energy storage system?

The energy storage system supports functions such as grid peak shaving, frequency regulation, backup power, valley filling, demand response, emergency power support, and reactive power compensation. The 2.5MW/5.016MWh battery compartment utilizes a battery cluster with a rated voltage of 1331.2V DC and a design of 0.5C charge-discharge rate.



## St Johns Liquid Cooled Energy Storage Module

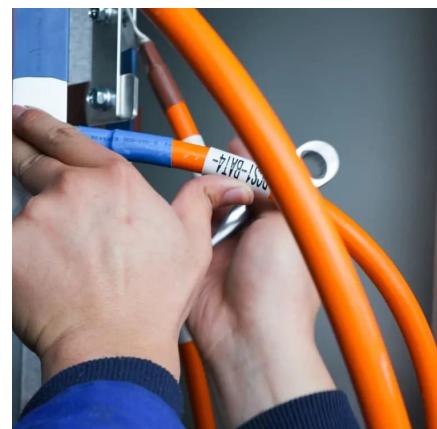


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Safety advantages of liquid-cooled systems  
Energy storage will only play a crucial role in a renewables-dominated, decarbonized power system if ...



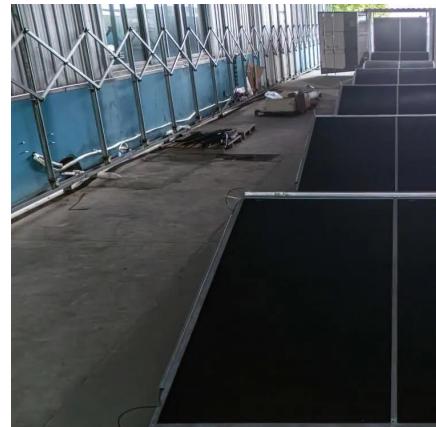
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### St. John's Liquid Cooled Energy Storage Module

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Safety advantages of liquid-cooled systems  
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### Liquid-Cooled Containerized Energy Storage System

The HJ-ESS-EPSL Series is a high-capacity liquid-cooled containerized energy storage system for large-scale industrial, commercial, and utility applications.



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