

Immersion Cooling Equipment

Integrated Phase Change Immersion Cooling Container



Overview

Fourier 1200kW phase-change immersion cooling technology utilizes an insulated fluorinated liquid to absorb the heat generated by high-performance chips and other electronic components through evaporation. The vaporized fluorinated liquid then releases heat as it condenses into liquid form. The coolant circulates within the heat exchanger. Inside, it undergoes forced heat exchange with ambient air. The cooled liquid then returns, enabling ultra-low power consumption, silent operation, and stable overclocking of high-performance chips.

Features

Energy Efficiency

- Supporting up to 1200kW per tank.
- Each tank has automotive-grade N+1 electronic AC pumps, consuming 30% less power.
- High-efficiency microchannel dry cooler.
- Heat recovery module supports hot water output 40-90°C.

Reliability

- Automotive-grade pump sets offer higher reliability and faster maintenance.
- One-piece structure withstands static and dynamic pressure from vaporization.
- Static pressure relief valves, fluorinated liquid recovery systems, and real-time pressure monitoring; automatically shuts off tank power in emergency.
- Enhanced system reliability.

Prefabrication

- Integrated architecture with prefabrication.
- Standard 45-foot container for global shipments.

Monitoring

- Intelligent O&M Integration: Fully compatible with the Fourier intelligent operations platform, enabling remote control and online maintenance via web, mobile app, standard API, and northbound protocols.
- AI-Powered Liquid Level Monitoring: Utilizes DNN algorithm for real-time alerts on standard, refill-required, and hazardous liquid levels delivering 90% higher alarm accuracy than the industry average.