

Immersion Cooling Equipment

Single Phase Immersion Cooling TANK



Overview

Fourier leverages an innovative gas-liquid hybrid technology, analyzing the relationship between bubble diameter and fluid viscosity, and optimizing various microbubble generation methods. Our technology significantly reduces the dynamic viscosity of single-phase immersion coolant. Combined with patented GPU-optimized cooler, the system meets the cooling demands of NVIDIA H100 GPUs and other 750 W TDP compute nodes in single phase immersion environments.

Each tank supports 12U-56U server configurations of various form factors, with per-tank cooling capacity exceeding 80 kW.

Features

Efficiency

- EC pumps: $\geq 30\%$ lower power than traditional centrifugal pumps.
- 100% liquid heat removal: no air-side load—today's most energy-efficient thermal architecture.
- Low PUE: with Fourier free-cooling (dry coolers), North America sites achieve PUE < 1.15 (including power distribution overhead).
- Heat recovery ready: optional module outputs 40-90 °C hot water.

Reliability

- In-tank nitrogen recirculation: no need for a 24x7 N₂ generator; stability improved.
- N+1 pump redundancy: automotive-grade pump sets for higher reliability than centrifugal designs; fast field replacement.
- Pressure-safety stack: static pressure relief valve plus real-time tank pressure monitoring for safe 24/7 operation.