TMF FuildCore Synergy:

Liquid Cooling Module for AI Computing

Application Scenarios

Specifically designed for high heat load scenarios such as AI large model training, supercomputing centers, and edge computing nodes, meeting the stringent heat dissipation requirements of uninterrupted operation.

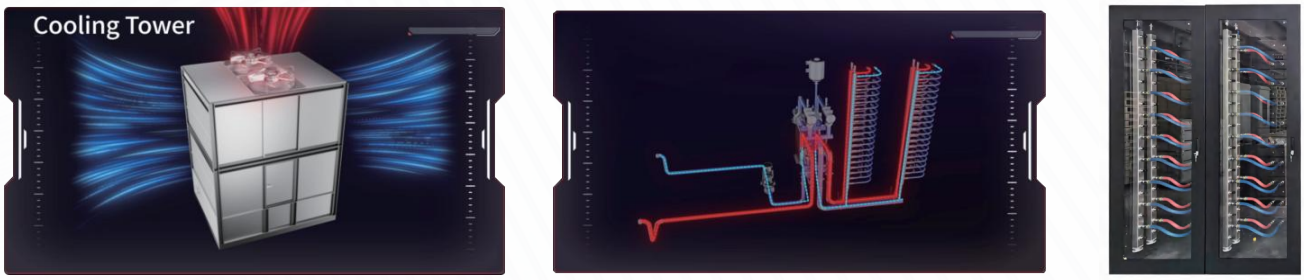
AI large model training

Supercomputing centers

Edge computing nodes

System Principle

Based on a dual-circulation intelligent temperature control architecture, through the collaborative work of cooling towers and CDU, dynamically adjusts flow rate and cooling capacity distribution to ensure precise heat dissipation.



cooling towers and CDU

System Structure

Cooling Tower (CTS)
Adopting 316 stainless steel integrated bending technology, it is corrosion-resistant and cold-resistant, adapting to extreme climate environments. The intelligent control system optimizes water and electricity consumption, achieving efficient and energy-saving operation.

Coolant Distribution Unit (CDU)
Compatible with various cooling media such as ethylene glycol, deionized water, and nanofluids, supporting leakage prevention, anti-corrosion, and high thermal conductivity customization needs.

Integrated System Architecture
Integrates CTS (Cooling Tower), CDU (Coolant Distribution Unit), PDU (Power Distribution Unit), UPS (Uninterruptible Power Supply) and other equipment in one, reducing on-site installation complexity and improving system reliability.

Core Advantages

Ultimate Energy Efficiency
Precisely control the flow rate, temperature, and pressure of the cooling liquid, with a PUE (Power Usage Effectiveness) as low as 1.03, significantly reducing data center operating costs.

Optimized Heat Transfer, Enhanced Reliability
By isolating TCS (Primary Loop System) and SCS (Secondary Loop System) loops, reduces cross-contamination and leakage risks, improving the overall reliability of the system.

Flexible Customization
Cooling media, leakage prevention levels, and heat dissipation scales can be configured on demand, adapting to diverse application scenarios. Each module has a cooling capacity of 400kW, which can be expanded according to user needs, supporting rapid deployment and later capacity expansion.

TMF Liquid Cooling Module for AI Computing Power Thermal Management — Efficient, reliable, flexible and future ready.