Water Cooling Tower

Liquid-Cooled Infrastructure-Scale Solution

Optimized for AI & HPC Data Center Performance and Efficiency

- **Cooling Capacity:** Supports 1 MW to 50 MW*
- **High Efficiency:** Reduced cooling energy consumption, lower PUE, and reduced costs and carbon footprint compared to conventional air-cooled systems
- **Modular Design:** Deploy in weeks, not months — flexible, quicker deployment and faster Time-to-Online (TTO)
- **Reliability:** Closed-loop design ensures cleaner operation, less maintenance, higher reliability, and longer equipment life
- **Performance per Watt Optimized:** EC fan maximizes energy savings without performance trade-offs
- **Uptime Assurance:** N+1 submersible pumps ensure continuous and quiet operation
- **Multiple Integration Protocol Support:** Support for Redfish®, SNMP, Web-based UI, and Supermicro SuperCloud Composer® (SCC)

Unified Cooling Loop Infrastructure

Supermicro provides a one-stop solution from evaluating and designing to deploying complete primary and secondary loop piping infrastructure for data center liquid cooling. The unified cooling loop architecture seamlessly integrates water cooling towers, CDUs, Rear Door Heat Exchanger, and rack-level manifolds — eliminating interface mismatches, simplifying deployment, and maximizing energy efficiency.

Closed-Loop Cooling with High-Efficiency EC Fans

Designed for AI and HPC data centers, Water Cooling Tower features a closed-loop design paired with high-efficiency EC fans. This setup provides reliable performance under intense heat loads, minimizes water loss, and achieves significant energy savings. Therefore, it is a robust, environmentally sustainable cooling solution that powers high-density clusters with peak efficiency and long-term reliability.

Modular Design for Flexible, Rapid Deployment

Our Water Cooling Tower lets customers choose the exact cooling capacity they need, starting from 1MW to multi-megawatt deployments. Each module is pre-assembled for rapid deployment, allowing installation and operation within a single day. The compact, containerized design also simplifies relocation or reconfiguration during data center expansions or rebuilds, delivering long-term adaptability and investment protection.

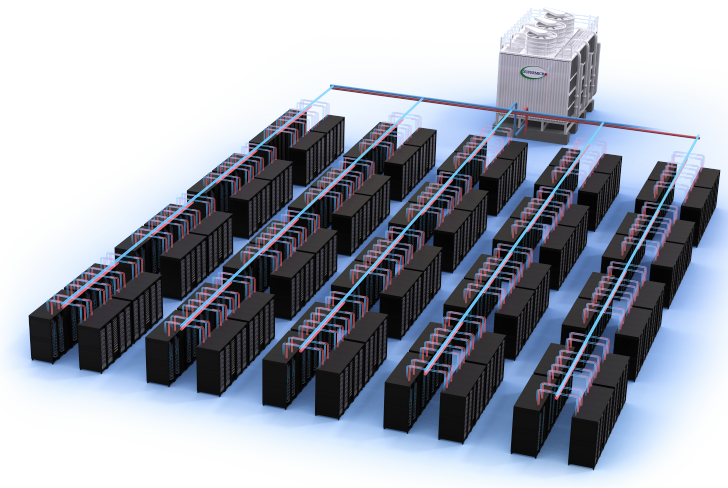
Centralized Management and Monitoring

Supermicro Water Cooling Tower features advanced control and monitoring capabilities, including a built-in touchscreen, Web UI, and support for SuperCloud Composer (SCC) for centralized management. It also supports industry-standard protocols, such as SNMP and Redfish, to enable seamless integration with existing data center platforms. Additionally, real-time monitoring of temperature, pressure, flow rate, and pump status ensures optimal and stable performance.

*Note: Higher cooling capacity is possible with adequate site resources

Water Cooling Tower	LCS-SCLT-010C1001
Application Type	Closed-loop
Cooling Capacity	1 MW to 50 MW*
Redundancy	N+1 submersible pumps
Power Consumption (Max)	21.7 kW
Dimensions	2,200 (W) x 3,840 (D) x 3,628 (H) mm
Weight	7,738 kg
Protocols	• SNMP v2c • Ethernet/Web-based UI • Redfish • RESTful API

*Note: Higher cooling capacity is possible with adequate site resources



Learn More About Supermicro Direct Liquid Cooling & Data Center Building Block Solutions®

Supermicro's Data Center Building Block Solutions (DCBBS) delivers complete, modular AI infrastructure. Built from validated components and sub-systems, DCBBS provides end-to-end deployment flexibility — from individual GPUs and networking switches to complete racks, site infrastructure, management software, and professional services.

In-Rack CDU

In-Row CDU

L2A Sidecar CDU

Water Cooling Tower

Dry Cooler

Rear Door Heat Exchanger

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