Liquid-to-Air (L2A) Sidecar CDU

Seamless Liquid-to-Air Cooling Solution for Air-Cooled Data Centers

Accelerating AI and HPC Deployments

- **Designed for Fast Deployment:** Flexible, standalone design enables rapid integration for both retrofit and new AI/HPC cluster deployments — minimizing downtime and infrastructure changes
- **Cooling Capacity:** Up to 500 kW to support high-density AI & HPC racks
- **Maximized Uptime:** N+1 redundant pumps with Automatic Transfer Switch (ATS) ensure continuous operation and high reliability
- **Uninterrupted Power Continuity:** Redundant Power Supply Units (PSUs) maintain cooling during critical operations and power disruptions
- **Easy Management:** Intuitive touchscreen plus web interface simplify monitoring and control
- **Multiple Integration Protocol Support:** Support for Redfish®, SNMP, Web-based UI, and Supermicro SuperCloud Composer® (SCC)

Seamless, Rapid Deployment

Supermicro's L2A Sidecar enables rapid adoption of liquid cooling without the need for water cooling towers or primary facility water loops. By leveraging existing air-cooled infrastructure, it efficiently rejects rack-level heat into the air — eliminating the need for new facility-wide modifications. This approach is ideally suited for upgrading existing air-cooled data centers with minimal disruption.

Closed-Loop Design for High Reliability

Supermicro's L2A Sidecar keeps the liquid cooling loop fully contained within the rack, completely isolated from the facility's primary water system. Its closed-loop design prevents cross-contamination and leakage, protecting adjacent IT equipment while ensuring reliable, maintenance-friendly operation for high-density AI and HPC deployments.

High Energy Efficiency with VFD Optimization

Unlike traditional air cooling, the L2A Sidecar delivers significantly higher cooling capacity per rack. Integrated with Variable Frequency Drives (VFDs), it can adjust fan speed intelligently based on real-time thermal demand, which reduces power consumption while maintaining optimal performance. This adaptive feature enables greener, cost-saving operation across AI and HPC clusters.

Centralized Management and Monitoring

Supermicro's L2A Sidecar 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.

L2A Sidecar CDU	LCS-SCDU-200AR001	LCS-SSCR-500422K20001
Application Type	Liquid-to-Air (L2A) deployment	Liquid-to-Air (L2A) deployment
Cooling Capacity	200 kW	500 kW
Redundancy	N+1 redundant pumps	N+1 redundant pumps
Power Consumption (Max)	19 kW	55 kW
Dimensions	1,100 (W) x 1,415 (D) x 2,000 (H) mm	2,200 (W) x 1,465 (D) x 2,055 (H) mm
Weight	1,145 kg (without coolant)	2,300 kg (without coolant)
Protocols	• SNMP v2c • Ethernet/Web-based UI • Redfish • RESTful API	• SNMP v2c • Ethernet/Web-based UI • Redfish • RESTful API

Note: Designed with a modular architecture — each module maintains a footprint similar to the 200 kW sidecar, enabling comparable packaging dimensions and shipping weight for easier transportation and installation

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

© 2026 Copyright Super Micro Computer, Inc. Specifications subject to change without notice. All other brands and names are the property of their respective owners. All logos, brand names, campaign statements and product images contained herein are copyrighted and may not be reprinted and/or reproduced, in whole or in part, without express written permission by Supermicro Corporate Marketing.