

Rear Door Heat Exchanger (RDHx)

Easy-to-Mount Rear Door Cooling Solution for Efficient Heat Removal



Optimized for High-Density AI & HPC Data Center Racks

- **Fast, Flexible Deployment:** Universal rack compatibility and simple mounting reduce installation time
- **Cooling Capacity:** 10 kW to 120 kW to remove all residual heat, enabling maximum compute density
- **Zero-Downtime Reliability:** Redundant fans designs (3 to 12) keep cooling at peak performance
- **High Reliability:** Smart anti-condensation system prevents moisture damage
- **Multiple Integration Protocol Support:** Redfish®, SNMP, Web-based UI, and Supermicro SuperCloud Composer® (SCC) ready

Plug-and-Cool, Instant Upgrade

Supermicro's Rear Door Heat Exchanger (RDHx) provides up to 120 kW of cooling capacity through a plug-and-cool design, enabling easy deployment and exceptional operational flexibility. Compatible with most standard racks, it is ideal for cooling next-generation high-density setups and significantly improves thermal performance. Its instant-upgrade capability and rapid installation minimize downtime, delivering superior agility for data center operators.

Redundant Fan Design for Optimal Cooling

Supermicro's RDHx features a high-efficiency, N+1 redundant fan cooling design that delivers reliable thermal management even under the most demanding data center conditions. Each fan includes intelligent speed control to dynamically optimize airflow and maximize energy efficiency, while the N+1 redundancy provides built-in fault tolerance, allowing maintenance or replacement without disrupting system operation. This approach ensures exceptional reliability, scalability, and confidence for mission-critical AI and HPC workloads.

Power Integration for Enhanced Reliability

DC-powered model of the RDHx integrates seamlessly with the rack's shared power busbar, eliminating the need for additional cabling or external wiring. This fully integrated architecture streamlines deployment, significantly reduces installation time, and enhances both energy efficiency and airflow optimization. By leveraging the rack's existing power backbone, it delivers consistent, dependable power distribution and ensures long-term operational reliability in high-demand AI and HPC environments.

Centralized Management and Monitoring

Supermicro's RDHx 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.



Rear Door Heat Exchanger

SRK-82RDCC-00-001

LCS-SRDR-10048800001

SRK-52RDCC-00-001

Specification	MGX Rack/EIA Rack/ORv3 Rack	EIA Rack	MGX Rack/EIA Rack/ORv3 Rack
Power Supply	Alternating Current (AC)	Alternating Current (AC)	Alternating Current (AC)
Cooling Capacity	Up to 120 kW	Up to 100 kW	Up to 80 kW
Fan Quantity	6	12	5
Power Consumption (Max)	3.6 kW	5 kW	2.1 kW
Dimensions	- Height: 48U/52U/60U - Width: 600/750/800 mm - Depth Range: 400 - 470 mm	- Height: 42U/48U/52U - Width: 600/750/800 mm - Depth: 280 mm (without extender)	- Height: 48U or 52U - Width: 750 or 800 mm - Depth: 375 mm (without extender)
Weight	146 kg (without coolant)	160 kg (without coolant)	136 kg (without coolant)
Protocols	- SNMP v2c/v3 - Ethernet/Web-based UI - Redfish	- SNMP v2c/v3 - Ethernet/Web-based UI - Redfish	- SNMP v2c/v3 - Ethernet/Web-based UI - Redfish



Rear Door Heat Exchanger

LCS-SCDU-050AR001

SRK-42RDCC-00-001

LCS-SRDR-05048750001

Specification	MGX Rack	MGX Rack/EIA Rack/ORv3 Rack	EIA Rack
Power Supply	Direct Current (DC)	Direct Current (DC)/Alternating Current (AC)	Alternating Current (AC)
Cooling Capacity	Up to 50 kW	Up to 50 kW	Up to 50 kW
Fan Quantity	10	4	6
Power Consumption (Max)	3.3 kW	1.7 kW	3.3 kW
Dimensions	- Height: 42U/48U/52U - Width: 600/750/800 mm - Depth: 310 mm (without extender)	- Height: 42U/48U/52U - Width: 600/750/800 mm - Depth: 375 mm (without extender)	- Height: 42U/48U/52U - Width: 600/750/800 mm - Depth: 381 mm (without extender)
Weight	120 kg (without coolant)	114 kg (without coolant)	130 kg (without coolant)
Protocols	- SNMP v2c/v3 - Ethernet/Web-based UI - Redfish	- SNMP v2c/v3 - Ethernet/Web-based UI - Redfish	- SNMP v2c/v3 - Ethernet/Web-based UI - Redfish



Rear Door Heat Exchanger	LCS-SRDR-02048600001	SRK-10RDCC-00-001 (Fan Door only)	LCS-SRDR-02042750001
Specification	MGX Rack/ORv3 Rack	MGX Rack/EIA Rack/ORv3 Rack	EIA Rack
Power Supply	Direct Current (DC)	Direct Current (DC)/Alternating Current (AC)	Alternating Current (AC)
Cooling Capacity	Up to 20 kW	Up to 25 kW	Up to 20 kW
Fan Quantity	8	3	5
Power Consumption (Max)	2.84 kW	1.25 kW	2 kW
Dimensions	- Height: 42U/48U/52U - Width: 600/750/800 mm - Depth: 270 mm (without extender)	- Height: 48U or 52U - Width: 600/750/800 mm - Depth: 253 mm (without extender)	- Height: 42U/48U/52U - Width: 600/750/800 mm - Depth: 340 mm (without extender)
Weight	110 kg (without coolant)	64 kg (without coolant)	120 kg (without coolant)
Protocols	- SNMP v2c/v3 - Ethernet/Web-based UI - Redfish	- SNMP v2c/v3 - Ethernet/Web-based UI - Redfish	- SNMP v2c/v3 - Ethernet/Web-based UI - Redfish

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