

PRODUCT DATA SHEET

SmartSense CDU

Scalable, High-Capacity Cooling for Power-Dense Racks

SmartSense CDU is a high-performance, rack-mounted liquid-to-liquid Coolant Distribution Unit designed to meet the rigorous demands of GPU-dense, high-power racks. Capable of cooling up to **300kW per rack**, it effectively manages heat in power-intensive environments, ensuring your data center infrastructure remains optimized for next-generation workloads.

Complete Liquid Cooling Solution

When combined with JetCool's advanced cold plates, manifolds, and quick disconnects, SmartSense CDU delivers high-performance rack-level cooling, seamlessly supporting both single and neighboring racks with one in-rack CDU. This integrated solution ensures exceptional efficiency and reliability for data centers, providing a powerful end-to-end cooling system designed for even the most compute-intensive environments.



PRODUCT SPECIFICATIONS

Form Factor	6U
Length	950 mm
Weight	160 kg
Fluid Temp. Range	10°C to 70°C
Secondary Side Fluid	PG25
Electrical Supply	200 - 250 VAC, Single-Phase
Comm Protocol	TCP / IP, Redfish SSH, Webserver

Patented Technology, Additional Patents Pending.

PERFORMANCE SPECIFICATIONS

Performance Metric	Redundant Mode	Boost Mode*
Cooling Capacity	160 kW	300 kW
Flow Rate	280 LPM	400 LPM
Available Pressure	28 psi	22 psi
Approach Temp.	4°C	7°C
Power Consumption	2,800 W	5,100 W
Power Usage (PUE)	1.75%	1.70%

*Boost mode is defined as the CDU operating with all pumps running.



300kW
Racks



225 LPM at >30 psid
Available Pumping Pressure



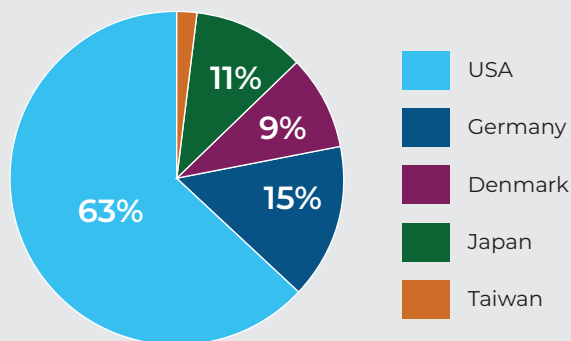
1-1.5 LPM/kW
Flow Targets

SmartSense CDU delivers efficient, reliable cooling for high-performance AI workloads. With low-speed redundant pumps, warm inlet compatibility, and advanced filtration, it integrates seamlessly into modern data centers, accelerating AI time-to-solution.

MANUFACTURING SERVICES

North America based manufacturing with multiple facilities in the USA and Mexico with over **60% of product BOM in the USA.**

CDU Components Country of Origin
(95% of BOM Cost)



Pump	USA
Heat Exchanger	USA
Variable Frequency Drive	Japan
Programmable Logic Controller	Germany
Human Machine Interface	Taiwan
Sheet Metal Enclosure	USA
Sensor Package	Denmark

- ✓ **Maximize GPU utilization with warm inlet temperatures up to 60°C**, run at peak performance longer, accelerate computation-intensive processes and reduce time-to-solution for AI models.
- ✓ **Ultra-low thermal loading for flow** ensures more uniform device temperatures and extended device lifetimes (>1 LPM/kW). ASHRAE W4 and W+ compatible.
- ✓ **Advanced filtration detection** ensures continued operation while providing early insight into fluid contamination issues.
- ✓ **Versatile rack design compatible with 42-inch+ (1070 mm) deep racks** in the 19-inch or ORv3 form factors, enabling seamless integration into modern data centers.
- ✓ **Ultra-efficient, redundant pumps** operate at low speeds (2,900 RPM nominal, 3,600RPM max) for quiet, efficient, and reliable performance.
- ✓ **Automatic pump switching** evens out pump wear and maximizes CDU pump train lifetime.

END-TO-END LIQUID COOLING PROVIDER

JetCool delivers end-to-end liquid cooling solutions — all under one roof. From cold plates and CDUs to manifolds and quick disconnects, we simplify your path to liquid cooling at scale. From chip to grid, we help you deploy faster, scale smarter, and cool more efficiently — with one trusted partner.

Precision Cold Plates

CDUs

Manifolds

Quick Disconnects