

# Vertiv™ CoolChip CDU – 2300kW

Liquid-to-Liquid Coolant Distribution Unit



## Features & Benefits

- Delivers exceptional heat rejection capacity up to 2.3 MW with a single CDU
- Flexible deployments for in-row or perimeter placement
- Configurable top and bottom hygienic connections for quick and easy installs
- High cooling availability with redundant pumps and unit to unit group operating modes
- Built-in unit leak detection and available spot leak detection options
- Maintain system uptime and efficiency with integrated filtration and fluid monitoring options
- Supports ASHRAE W45 cooling, at low approach temperatures for high efficiency deployments
- Secondary fluid temperature controlled within  $\pm 1^{\circ}\text{C}$  to enable cooling stability with variable heat loads
- Controlled secondary fluid circuit through differential pressure or flow rate control modes, meeting various application requirements
- Global all-in-one service offerings from design to installation and startup to fluid management and trouble shooting
- CE (pending), cULus (pending), and RoHS Compliance

*The Vertiv™ CoolChip CDU 2300kW is the smallest footprint coolant distribution unit in this capacity range, providing effective separation of the facility fluid circuit and secondary fluid network while maximizing available space for high density IT. This liquid-to-liquid CDU is ideal for your next direct-to-chip AI deployment.*

### Ultra High-Density Cooling Availability

As AI data center infrastructure has become widely integrated and deployed, these systems are not only increasing in rack density and compute power but are being deployed as scalable rack clusters.

The Vertiv CoolChip CDU 2300kW is engineered to support deployments of high-density pods for AI, High Performance Computing (HPC), and Machine Learning applications., by delivering high-performance cooling This system offers robust secondary flow rate availability, high efficiency heat transfer, and ITE protective hardware and best in class controls. Enabling users to build, scale and maintain their AI infrastructure with confidence.

### Precisely Maintained Fluid

To maximize heat transfer, server performance, and deployment uptime the ITE cooling fluid of a liquid cooling deployment needs to be properly maintained. The Vertiv CoolChip CDU provides essential separation of the facility fluid circuit, and secondary fluid circuit, additionally utilizing industry approved wetted materials, hot swappable integrated filtration, and can be outfitted with a monitoring package to provide automated fluid sampling. With integrated controls to manage flowrate, pressure, and temperature, the fluid can be precisely maintained for exceptional quality.

### Local and Remote Management

- 7" color touchscreen Human-Machine Interface (HMI)
- Communication via Modbus RTU (RS485) and TCP/IP
- Full alarm monitoring, providing real-time status of the IT equipment and ambient environment
- Remote monitoring and control capabilities
- Unit-to-unit communications available for increased redundancy and controlled coordination



Technical Specifications

Physical Data		
Unit Dimensions (H x W x D), m (in)	2400 x 1200 x 1200 (94.5 x 48 x 48)	
Performance Data		
Nominal Cooling Capacity	2300 kW @ 4°C ATD	
Fluid Circuit Data		
Fluid Type	Water or PG-25 with inhibitors	
Fluid Filtration	50μ or 25μ	
Maximum Fluid Flow	3400 l/min (898 gpm)	
Secondary Outlet Temperature	36°C	
Primary Inlet Temperature	32°C (ASHRAE W3 Class)	
Approach Temperature Difference	4°C	
Secondary deltaT (using PG25)	10°C	
Secondary Pump Redundancy	N+N (reduced capacity)	
Primary Pipe Diameter	6 in. Sanitary Flange	
Secondary Pipe Diameter	6 in. Sanitary Flange	
Piping Connection, Top and Bottom	Top or Bottom Connections	
Primary Control	2-Way Modulating Control	
Electrical Data		
Power Supply	400V, 50/60Hz	480V, 60Hz