

# Vertiv™ CoolChip CDU – 100

In-Rack Liquid-to-Liquid Coolant Distribution Unit



## Benefits

This energy and space efficient coolant distribution unit for High Performance Computing (HPC) and data center applications provides:

- Simple in-rack installation, occupying only 4U of rack space
- Localized liquid cooling loop to enable quick deployment of liquid cooling
- Essential separation of the primary (facility) water from the IT equipment to maintain high quality
- A large surface area heat exchanger to provide high cooling capacity with low approach temperatures
- Controlled secondary fluid circuit through differential pressure, meeting various application requirements
- Secondary fluid temperature controlled within  $\pm 1^{\circ}\text{C}$ , to ensure cooling stability with variable heat loads
- Global all-in-one service offerings from design to installation and startup to fluid management and trouble shooting
- CE, cULus (pending), and RoHS Compliance



*The Vertiv™ CoolChip CDU 100 in-rack coolant distribution unit (CDU) provides effective separation of the facility fluid circuit and secondary fluid network via a liquid-to-liquid heat exchanger for single rack direct-to-chip cooling applications.*

### In-Rack Fluid Distribution

The CoolChip CDU delivers high-capacity cooling in a compact footprint that ensures easy, cost-effective liquid cooling deployments in any data center application for high-density processes. This in-rack CDU makes it simple to deploy additional liquid cooled racks as businesses grow or for companies looking to test AI programs before making larger investments in full-scale systems.

Since the CDU is only supporting a single rack, the smaller secondary fluid circuit ensures that the fluid used can be kept to a minimum volume, minimizing any risk in the data center. With integrated controls to manage flowrate, pressure, and temperature, the fluid can be precisely maintained for exceptional quality at all times.

### 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 communication available for increased redundancy and controlled coordination



## Technical Specifications

### Physical Data

Unit Dimensions (H x W x D), m (in)	175 x 445 x 830 (6.89 x 17.52 x 32.66)
Shipping Dimensions (H x W x D), m (in)	330 x 650 x 1310 (13 x 25.60 x 51.60)
Weight (Dry), kg (lbs)	53 (117)
Weight (Wet), kg (lbs)	59 (130)
Weight (Shipping), kg (lbs)	87 (191)

### Performance Data <sup>1</sup>

Nominal Cooling Capacity	100 kW @ 4°C Approach Temperature Difference (ATD) <sup>2</sup>
Nominal Fluid Flow (Secondary)	100 l/min
Maximum Fluid Flow (Secondary)	135 l/min

<sup>1</sup> All Performance Data calculated with single pump operation

<sup>2</sup> Capacity is at 32C Primary (Ashrae W3) Inlet Temperature

### Fluid Circuit Data

Fluid Type	Water or PG-25 with inhibitors
Fluid Filtration	50µ
Primary Fluid Circuit Volume	3.4L
Secondary Fluid Circuit Volume	5.7L
Piping Connection	1.5 in. Sanitary Flange
Connection Location	Rear

### Electrical Data

Power Supply	115V, 1PH, 60Hz	230V, 1PH, 50HZ
FLA	8.2A	3.9A
MCA	12.1A	6.1A
Nominal Power Consumption	750W	
Max Installed Load	3.91 kVA	
Dual Power Feeds	Standard Feature	

### Ambient Conditions

Operating Conditions	0 to 40°C (0 - 104°F), 10 to 90% RH (non-condensing)
Storage Conditions	-40 to 70°C (-40 to 158°F), 5 to 93% RH (non-condensing)

### Compliance

Safety Compliance	CE, cULus, RoHS
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