

Room-level CDU (Room-level Coolant Distribution Unit)

Models: TC-CDU-RL900 · TC-CDU-RL1200 · TC-CDU-RL2000



PRODUCT OVERVIEW

The room-level CDU is a large centralized cooling unit installed independently in the plant room. It consists of cabinet, plate heat exchanger, secondary circulation pump, constant-pressure liquid replenishment system, expansion tank, filter, valves, sensors, control system, display and power module, forming a closed circulating heat exchange loop.

KEY FEATURES

- Full-year free cooling with ultra-low energy consumption
- Redundant key components; anti-condensation; self-holding pumps and valves; dual power with non-stop switching; leak detection
- Multi-mode control: differential pressure, flow, cold/hot standby, stand-alone, group, local and remote; automatic networking for group management
- Compatible with CPU and GPU cold plate liquid cooling; optional functional modules
- Wide, stepless adjustment of cooling capacity and differential pressure
- Flexible options for pipe direction, filtration grade and communication protocol
- High lift and large flow, suitable for large ring networks
- Online automatic liquid replenishment; easy-maintenance internal layout
- Sanitary-grade pipelines and high-precision filtration
- RS485 and RJ45 Ethernet; Modbus, TCP and UDP protocols

PRODUCT SPECIFICATIONS

Model	TC-CDU-RL900	TC-CDU-RL1200	TC-CDU-RL2000
Rated Heat Exchange Capacity (kW)	900	1200	2000
Unit Rated Flow Rate (L/min)	1330	1720	3000
Pump Type	Dual pump		
Primary Supply / Return Water Temp. (°C)	35 / 45		
Primary Working Fluid	Softened water, PG25 or EG25 aqueous solution (PG25 = 25% propylene glycol; EG25 = 25% ethylene glycol)		
Secondary Supply / Return Water Temp. (°C)	40 / 50		
Secondary Working Fluid	Softened water, PG25 or EG25 aqueous solution		
Overall Dimension W×D×H (mm)	950×1500×2200	1200×1800×2200	1200×2000×2200
Power Specification	2 circuits, 3-phase AC380–415 V, 50 Hz		
Dual Power Input (optional)	Mains / UPS / diesel generator		
Storage Ambient Temperature & Humidity	-45 ~ 85 °C; long-term storage 5%~85% RH non-condensing; short-term storage 5%~95% RH non-condensing		
Altitude	3000 m (derating required above 3000 m: for every 200 m rise, the ambient temperature rating drops by 1.5 °C)		

Note: All parameters tested with pure water as the working medium. For other capacities or working fluids, consult our technical staff for verification.

APPLICATIONS

High-Density Data Center

Intelligent Computing Center

Large-Scale Computer Room

AI Training Cluster

Scientific Research Laboratory

High-Power Industrial Equipment Cooling

Data Center Retrofit & New-Build