

SuperCDU-500

Liquid-to-Liquid Coolant Distribution Unit

The increasing demand for high-performance computing and advanced GPUs highlights the limitations of air-cooling. Delta's SuperCDU offers a superior alternative, providing effective separation of facility and secondary circuits as well as precise control over flow, pressure, temperature, and coolant quality. It excels in managing high-density thermal load, maximizing computing power while minimizing data center PUE. The SuperCDU ensures operational reliability by preventing condensation and guarantees quality with its stainless steel plumbing and coolant filtration. Embrace the future of high-performance computing with Delta's SuperCDU!



Cost Effective

- Maximize energy saving: cuts power consumption, surpassing traditional air cooling
- Space optimization: compact design enables closer server placement further reducing Capex
- Flexible integration: supports direct-to-chip and Rear Door Heat Exchanger (RDHx) application, adapting to existing setups and blending air and liquid cooling for future upgrades

High Reliability

- Uninterrupted operation: dual power feed with ATS ensures continuous CDU operation
- Optimized redundancy design ensures no single point of failure in the system
- Leak detection: instant alarms with configurable response for efficient pumping action
- Durable construction: stainless steel plumbing with 50-micron filters for long-term coolant quality

Easy Management

- Intuitive interface: 10-inch color touchscreen displays real-time system status
- Efficient control: group and manual control enhance system management and reliability

Technical Specifications

Model	SuperCDU-500	
Nominal Cooling Capacity	500 kW ⁽¹⁾	
PRIMARY SIDE		
Coolant Type	Water	
Nominal Coolant Flow Rate	660 LPM	
Operating Pressure Drop	151.68 kPa @660 LPM water flow rate	
Coolant Filter	500µ with bypass to enable cleaning	
SECONDARY SIDE		
Coolant Type	Deionized water	
Nominal Coolant Flow Rate	950 LPM	
Approach Temperature	5°C	
Coolant Filter	50µ with bypass to enable cleaning	
External Pressure Drop	70 kPa	
POWER SUPPLY		
Nominal Power Supply Voltage	380/400/415 Vac, 3P4W+PE	
Operating Voltage Range	360-440 Vac	
Frequency	50/60 Hz	
Maximum Over Current Protection (MOCP)	17 A	
Full Load Ampere (FLA)	12.5 A	
Dual Power Feed	Standard	
Power Feeds Location	Top	
DEPLOYMENT		
Primary Connection	Victaulic coupling 475, DN65	
Secondary Connection	Victaulic coupling 475, DN80	
Primary and Secondary Connection Location	Bottom	
PHYSICAL		
Dimensions (W x D x H)	600 x 1350 x 2100 mm	
Net Weight	With Coolant	800 kg
	Without Coolant	675 kg
COMMUNICATION INTERFACE		
Display	10" Color touchscreen	
Protocols	SNMP, Modbus TCP, Modbus RTU	
Monitoring	Primary Side: Temp. (Inlet/Outlet), Flow, Pressure (Inlet, Filter ΔP) Secondary Side: Temp. (Supply/Return), Flow, Pressure (Supply, Return, Filter ΔP) Dew-point Temp.	
CONFORMANCE		
Safety	CE	
FEATURES		
Leak Detection	Standard	
Temperature/Pressure Sensor Redundancy	Standard	
Integrated Variable Frequency Drivers (VFD's)	Standard	
Pressure Independent Control Valve (PICV)	Standard	
Flexible Secondary Side Coolant Options	PG25/Pure Water/Deionized Water	
Auto-restart Function	Standard	

(1) Conditions for rated capacity: facility inlet water temperature 34.5°C, approach temperature 5°C, secondary diff. temperature 8°C

All specifications are subject to change without prior notice.



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