Technical Datasheet

10U CDU (Coolant Distribution Unit)



10U Coolant Distribution Unit

Boyd's new 10U Liquid-to-Air Coolant Distribution Unit (CDU) is a very effective system to provide liquid cooling to high-power computing in a data center or edge servers where facility water is unavailable. As HPC chip power increases, liquid cooling becomes the necessary solution to replace conventional air cooling. However, not every data center or edge server is equipped with facility water. Boyd's 10U liquid-to-air CDU is a perfect solution for providing liquid cooling to those HPC servers.

Depending on heat load and temperature requirements, Boyd's 10U CDU has a capacity of over 30 kW. With industry-standard liquid ports and electrical connections, the system is ready for quick field installation and easy operation. This 10U CDU has high reliability with built-in N+1 redundancies with power supply and pumps. The large LCD provides easy parameter controls and displays.

Whether you need a CDU for data center or edge server deployment, system burn-in testing, or lab testing, this product will provide worry-free cooling. This unit seamlessly works with Boyd's rack manifold and cold plate loops for a complete end-to-end liquid cooling solution.

System Features of 10U CDU

- N+1 redundacy for pump, fan and power supply
- Dry-run protection for pump
- Pump speed control and health monitoring
- · Supply and return temperature monitoring and control
- · Supply pressure differential monitoring and control
- · Flow control and monitoring
- Auto-refill pump
- · Supports multiple communication protocols
- · Integrated leakage detection
- · Re-fill pipeline kit with filter optional
- Overflow pipeline kit optional



All data and statements concerning these products may be considered as being indicative of representative properties and characteristics obtainable. Since industry practices vary, we make no warranty, express or implied, concerning their use, nor do we accept responsibility for any misapplications or these products or their use under any conditions.



Performance Specifications for 10U CDU

Category	Value	Remarks
Cooling Capacity	32 kW	90% fan power, 60LPM and 24°C approach temperature, PG25
Power Consumption	2.6 kW (maximum)	Actual power varies with operating conditions
Power Supply	100 - 230 VAC, 50/60 Hz	
Ambient Operating Temperature	Up to 45°C	
Coolant Types	Water, EGW, PGW	
Air Flow	3,400 CFM (maximum)	
Flow Rate Range of Loop	Up to 70 LPM	
Inlet / Outlet Port Size	1.5" Sanitary Flange (Tri-clamp)	
System Maximum Pressure	500 kPa (5 Bar)	Except the expansion tank and relief valve
Net Weight	209 Lbs (95 Kg)	Dry Weight
Altitude	≤ 1000m	
Outline Size (L x W x H)	982mm x 538mm x 440mm	
Electric Insulation	>10 M Ω	>1500 V/1min
Storage temperature	-25°C to 55°C, 5-90% RH	
Inlet / Outlet Port SizeSystem Maximum PressureNet WeightAltitudeOutline Size (L x W x H)Electric Insulation	1.5" Sanitary Flange (Tri-clamp) 500 kPa (5 Bar) 209 Lbs (95 Kg) ≤ 1000m 982mm x 538mm x 440mm >10 M Ω	Dry Weight

Physical Dimensions of 10U CDU







To receive more information on CDUs customization, visit us at www.BoydCorp.com.

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