DATA SHEET

liquidstack



LiquidStack CDU 2.X

The Row CDU 2.X provides a high-capacity end-of-row solution optimized for AI and HPC workloads

Up to 2.5MW Capacity

4°C ATD at 3750 lpm

Up to 2.0MW Capacity

3°C ATD with 3750 lpm

Designed for end-of-row deployment within high-density AI and HPC data halls. The system delivers up to 2.5 MW of cooling capacity at 4°C approach temperature difference (ATD) and provides hydraulic separation between the Facility Water System (FWS) and Technology Coolant System (TCS). The product is optimized to minimize white space footprint while supporting redundant cooling architectures required for next-generation GPU deployments.

- **One CDU. Any Rack. Total Deployment Flexibility** – compatible with full range of silicon architecture requirements
- **Simplified deployment** – reduced layers of deployment complexity for improved efficiency and reduced points of failure
- **Build-your-own-CDU** – configured-to-order CDUs to fit different deployment architectures.
- **Built for AI architectures of today and tomorrow** – adapt cooling infrastructure to evolving AI workloads through flexible deployment and distribution architectures
- **Sustainable operation** – designed to operate at lower approach temperatures and up to 45°C facility inlet temperature for high efficiency deployments

FEATURES AND BENEFITS

- Dual concurrently maintainable pumps to ensure uptime designed to support both Tier III and Tier IV redundancy
- System redundancy options – single pump mode for N+1 internal pump redundancy or dual pump mode for CDU unit-to-unit level redundancy
- High available head pressure (3.5 bar / 50 psi) at 3750 lpm / 990 gpm to support next generation GPUs requirements
- Ultra-low frequency VFDs meet stringent IEEE 519 standards for less than 5% THDi without additional hardware or complexity
- Differential pressure, flow rate or pumps speed control modes to meet application specific requirements
- Fast acting control valves for quick thermal response to transient loads
- Drain pan with integrated leak detection
- Optional fluid quality monitoring ensures efficiency and uptime by monitoring real-time fluid health

CONFIGURABLE OPTIONS

- Control Valve – CCV (fast-acting) or PICV
- Redundancy – Dual Feed (A/B) or Dual Feed with ATS
- Top or bottom piping connections
- Modbus, Restful API with Redfish, BACnet or SNMP communication protocols
- Spot or rope leak detection
- Pressure safety valve (PSV) setting (6 or 9 bar)
- Optional FWS electro-magnetic flow meter
- Optional Fluid Quality Monitoring with pH, turbidity, and conductivity sensors

Technical specifications

GENERAL		
Part Number	D1PR20	
Dimensions (HxWxD)	2286 x 1600 x 1200 mm	90" x 63" x 48"
Service Access	Front/Rear or Front/Side	
Ambient Temperature Conditions	10 to 45 °C	50 to 104 °F
Ambient Humidity	8 to 80% (non-condensing)	
Certifications	ETL and CE certified to conform with UL and IEC 62368-1, RohS, REACH	

PERFORMANCE		
Nominal cooling capacity @ 4C ATD	2.5 MW	
Nominal cooling capacity @ 3C ATD	2.0 MW	
Nominal Flowrate (Dual Pump Mode)	3750 lpm	990 gpm
Max Available Head	3.5 bar	50 psi

FLUID CIRCUIT	
Primary Fluid Type	Chilled water or glycol mixture
Secondary Fluid Type	Treated water or glycol mixture
Water Inlet Temperature	W17 to W45
Primary and Secondary Connections	6" sanitary flange
Primary Filtration	Optional external field fitted 500µ
Secondary Filtration	25µ

CONTROLS	
Communication	Modbus, Restful API with Redfish, BACnet, SNMP

ELECTRICAL	
Power Input	380 – 480V, 3 Phase, 50/60Hz
Power Redundancy	Dual Feed (A/B) or Dual Feed w/ ATS
Power Quality (THDi)	<5%
Nominal Power Consumption	52 kW
MOCP	Dual Feed (A/B): 100A; Dual Feed with ATS: 150A

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