

## ECOCORE RCD

### Purpose-built to scale with the evolving demands of AI and HPC.

Delivering up to 3.9 MW of liquid cooling direct to the rack, the RCD is suitable for in-row or mechanical gallery deployment, shipped ready for seamless integration into data hall server rows or adjacent mechanical rooms.



#### PERFORMANCE SPECIFICATIONS

##### Cooling Capacity

|                             |                       |
|-----------------------------|-----------------------|
| Maximum Capacity per Module | Up to 3,900 kW        |
| Maximum TCS Flow            | 4,875 LPM [1,288 GPM] |

|                |             |
|----------------|-------------|
| Approach [ATD] | 3°C [5.4°F] |
|----------------|-------------|

##### Hydraulic

|                                                     |                    |
|-----------------------------------------------------|--------------------|
| Available TCS Differential Pressure at Maximum Flow | 3.2 bar [46.4 PSI] |
| Maximum Available TCS Differential Pressure         | 7 bar [101 PSI]    |

##### Electrical

|              |                                                                  |
|--------------|------------------------------------------------------------------|
| Power Supply | 400–480 V, 3-phase, 50/60 Hz; dual power feeds with optional ATS |
|--------------|------------------------------------------------------------------|

|                       |       |
|-----------------------|-------|
| Max Power Consumption | 56 kW |
|-----------------------|-------|

|                 |          |
|-----------------|----------|
| Harmonic Filter | Optional |
|-----------------|----------|

#### KEY CAPABILITIES

##### In-Row, Best In-Class Performance CDU

Purpose-built to scale with AI and HPC demand. Delivers up to 3.9 MW of liquid cooling per module directly to the rack. Scalability through grouped modules for synchronized, system-level capacity.

##### Compact, Serviceable Design

Compact footprint engineered for fast provisioning and long-term reliability. Concurrently maintainable 3N/2 pump and filter configuration enables zero-downtime servicing.

##### Adaptive Controls

Customizable setpoints, performance parameters, and alarming, with selectable constant  $\Delta P$ , constant-temperature, and constant-flow control modes. Automated FWS and TCS flow control dynamically balances thermal load in real time.

##### Flexible Deployment

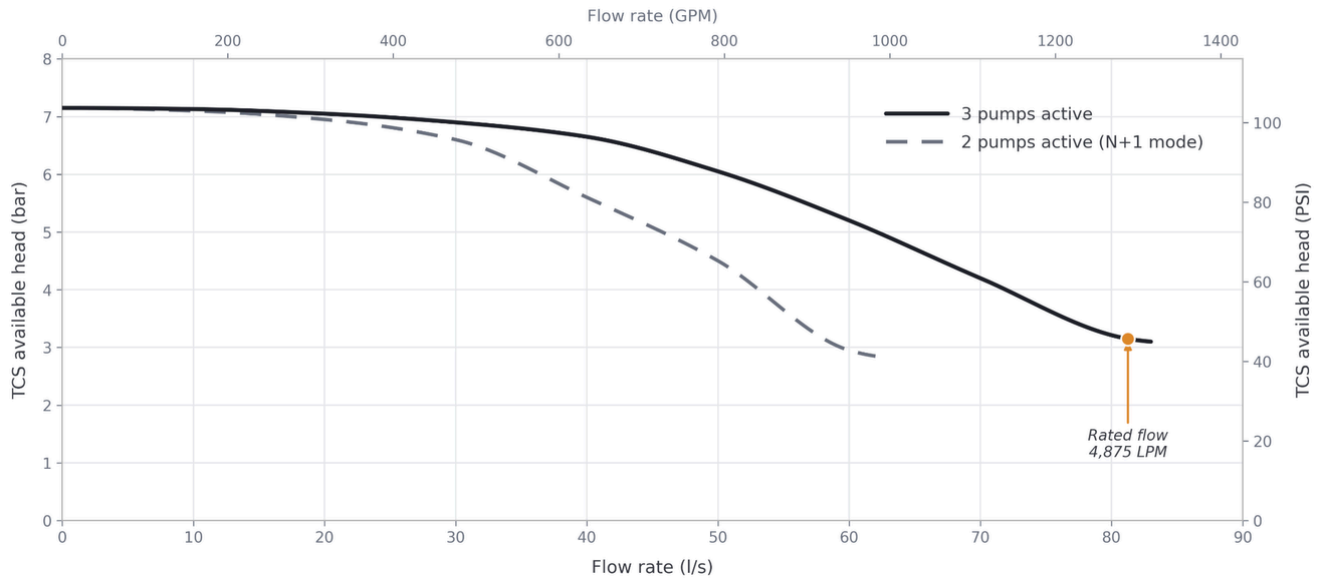
Suitable for in-row or mechanical gallery deployment. Ships ready for seamless integration into data hall server rows or adjacent mechanical rooms.

##### Intelligent Monitoring

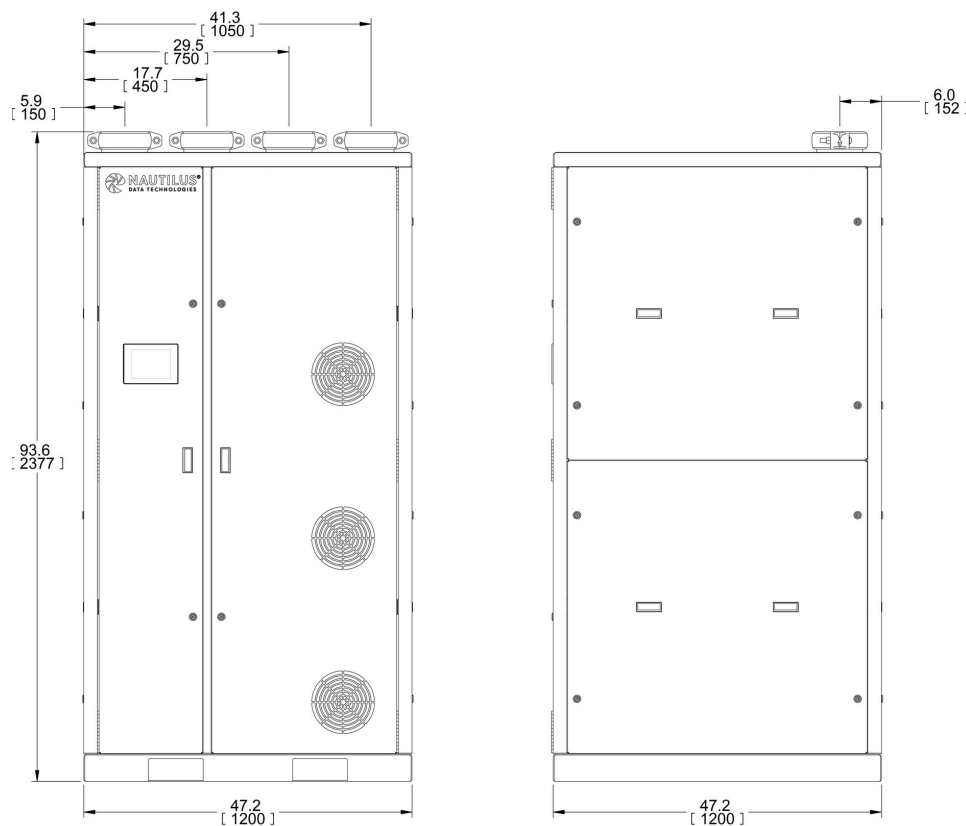
Local touchscreen and network-ready HMI for real-time visibility. Native BMS/DCIM integration via Modbus TCP, OPC UA, SNMP, and Redfish.

FWS = Facility Water System, Primary  
TCS = Technology Cooling System, Secondary  
ATD = Approach Temperature Difference, TCS supply temperature minus FWS supply temperature  
ATS = Automatic Transfer Switch

**Fig. 1 — TCS Available Head vs. Flow Rate**



**Fig. 2 — General Dimensions**



# Row Cooling Distribution Unit

## Performance & Key Capabilities



| GENERAL SPECIFICATIONS   |                                                      |
|--------------------------|------------------------------------------------------|
| Connections & Coolant    |                                                      |
| FWS Connection           | 150 mm [6 in.] SS316                                 |
| TCS Connection           | 150 mm [6 in.] SS316                                 |
| FWS Coolant Type         | Process water, water-glycol mix                      |
| TCS Coolant Type         | Process water, water-glycol mix                      |
| TCS Filtration           | 25µm, full stream                                    |
| FWS Filtration           | Optional 500µm, full stream                          |
| System                   |                                                      |
| Pump & Filter Redundancy | 3N/2 pumps and filters; Concurrently maintainable    |
| Group Control            | Yes                                                  |
| Communication            | Modbus TCP, OPC UA, SNMP, Redfish                    |
| HMI                      | Local touchscreen HMI; web-based remote HMI          |
| Physical                 |                                                      |
| Dimensions (W×D×H)       | 1,200 × 1,200 × 2,400 mm<br>[47.2 × 47.2 × 94.5 in.] |
| Dry Weight               | 1,600 kg [3,527 lbs]                                 |
| Wet Weight               | 2,040 kg [4,497 lbs]                                 |
| Noise Level              | < 80 dB(A) at 1 m                                    |

| FLUID SYSTEMS & MONITORING |                                                                |
|----------------------------|----------------------------------------------------------------|
| Fill & Air Removal         |                                                                |
| System Fill                | TCS fill and service ports with integrated fill pump           |
| Expansion Tank             | Integrated                                                     |
| Sensors & Monitoring       |                                                                |
| Temperature Sensors        | Triple redundant TCS supply; TCS return; FWS supply and return |
| Pressure Sensors (ΔP)      | Triple redundant TCS; FWS; Filter                              |
| Flow Meters                | TCS and FWS                                                    |
| Leak Detection             | Continuous monitoring and alarming                             |
| Fluid Quality              | Optional conductivity, turbidity, and pH monitoring            |

For specifications, quoting, and regional integrator contacts:

[nautilusdt.com](https://nautilusdt.com) | [sales@nautilusdt.com](mailto:sales@nautilusdt.com)