



Inova InRow CDU — INVCDU1500

Ultimate Cooling. Reliable Redundancy.

PRODUCT OVERVIEW

The INVCDU1500 is a high-capacity InRow Coolant Distribution Unit (CDU) delivering up to 1500 kW cooling @ 4°C ATD. With N+N redundancy, intelligent monitoring, and hot-swappable components, it ensures maximum uptime, safety, and flexibility for AI and HPC workloads.

KEY FEATURES



High-Capacity Cooling

Delivers 1500 kW at a 4°C ATD and 40 psi DP, at a TCS flow rate of over 1.2 LPM/kW, supporting all the latest AI and HPC workloads.



Built-In Protection

Automatic dew-point control, dual leak detection, and auto fluid replenishment for maximum safety.



Intelligent Monitoring

Advanced PLC with touchscreen HMI and remote integration via Modbus/SNMP.



Always-On Reliability

N+N redundancy across pumps, power feeds, and sensors ensures continuous uptime.



Zero-Downtime Serviceability

Hot-swappable pumps, filters, and sensors keep operations running during maintenance.



Flexible Deployment

Compact footprint with top/bottom 4" hydraulic connections and full front & back service access.





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GENERAL DATA

- Redundant Pumps, power supply, and temperature & pressure-sensors
- Built in PLC battery backup module
- Quick visual of CDU health
- 10" Touchscreen Human-Machine Interface (HMI)
- Dynamic dew-point temperature control prevents condensation
- On-board integrated leak detection system
- 4" Hydraulic connections through top or bottom
- Remote control features through SNMP, Modbus TCP/IP

PUMPS

- N+N Redundant, stainless steel end suction circulation pumps for the secondary loop
- Independent VFDs with automatic pump changeover
- Retractable sliders for ease of maintenance

PIPING

- Victaulic groove connection termination, top or bottom
- 2 x 12 Litres expansion vessels
- 10 Litres reservoir tank with two integrated auto fill pumps
- Auto air vents with check valve, WRAS approved
- Integrated relief valve for safety, protection, and pressure regulation





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FILTRATION

- Primary side – 1 x 270-micron (std), online serviceable filter with a bypass for easy maintenance
- Secondary side – 2 x 50-micron (std), online serviceable filter and concurrently maintainable with an option for 25-micron filtration

HEAT EXCHANGER

- AISI316 stainless steel copper brazed plate heat exchanger

CONTROLS/ INSTRUMENTATION

- Adjustable PLC control system
- Real time capacity monitoring (primary and secondary)
- Water filter health status with dP sensor
- Total energy metering
- Temp and pressure sensors for primary and secondary loop
- Water leak detection system
- Multiple pump control mode
- Group Control



Electrical

Electrical Power Supply - Available Options	400V / 3PH / 50/60Hz
	480V / 3PH / 60Hz
Power Feeds	Redundant A/B, inbuilt ATS
Maximum Power Consumption	22 kW at maximum hydraulic load
Current consumption (Rated Current)	35 Amps
Required Fuse/ Overprotection Device Rating	63 Amps

Pump

Pump Type	Single stage, end suction
Pump Configuration	2 pumps for N+N redundancy
Maximum Pump Flow	594 GPM
Integrated Variable Speed Drives	Included

Primary Loop

Hydraulic Connection	4" Victaulic groove connection, top or bottom
Filtration	1 x 270 microns
Cooling Fluids	ASHRAE W1 to W4
Coolant Fluid Type	Water, water/glycol
Serviceable	Online serviceable with bypass arrangement

Secondary Loop

Hydraulic Connection	4" Victaulic groove connection, top or bottom
Filtration	2 x 50 microns
Coolant Fluid Type	Water, water/glycol
Serviceable	Concurrently maintainable
External dP Availability	≥40 psi

Physical Specification

Unit Width	850 mm (33.46 in)
Unit Height	2340 mm (92.13 in)
Unit Depth	1400 mm (55.11 in)
Unit Dry Weight	1500 kg (3306 lb)
Unit Operating Weight	1754 kg (3866 lb)
Color Code	RAL 7016

Standard Features

Dew Point Protection	Automatic dew point protection included
Fluid Reservoir Tank	10 Liters tank with coolant level sensor (low and high)
Expansion Vessel	N+N (12 Liters tank each)
Primary & Secondary Flow Meter	Included in standard
Leak Detection System	Internal and external detection included
Pressure and Temperature Sensors	Dual redundant sensors on both inlet and outlet
Real Time Cooling Capacity Metering (Primary and Secondary)	Included in standard
Fluid Filter Management	Filter status monitoring with dP
Real Time Electrical Power Metering	Included in standard
Auto Fluid Replenishment	Included in standard
Communication Protocol	Modbus TCP/IP, SNMP

Inova Cooling Offers

Prioritizing Innovation & Sustainability

With Inova, you gain access to a wide range of cooling options, ensuring you can find the perfect solution to optimize your infrastructure's performance while aligning with your sustainability goals.

01.

Traditional In-Row Cooling:

Inova's in-row cooling units are designed to fit seamlessly within your data center layout, delivering targeted cooling exactly where it's needed most, enhancing energy efficiency and reducing operating costs.

02.

Rear Door Heat Exchangers:

With Inova's rear door heat exchangers, you can efficiently remove heat from your data center environment, ensuring equipment operates at peak performance while minimizing energy consumption.

03.

Direct-to-Chip Solutions:

Our direct-to-chip cooling solutions offer advanced thermal management for demanding applications, ensuring precise temperature control and extending the lifespan of your hardware. Which includes the CDU and manifold products.

04.

Containment Systems:

Inova offers containment solutions to optimize airflow management within your data center, reducing energy consumption and improving cooling efficiency.

05.

Service & Maintenance:

We offer comprehensive services to ensure the longevity and efficiency of your infrastructure. Our services encompass every stage of the process, from initial design and architecture to component selection and ongoing maintenance.





About Inova

At Inova, our mission is to revolutionize the data center landscape by providing cutting-edge, reliable, and scalable equipment solutions.

Through our dedication to excellence, sustainability, and customer collaboration, we aim to be at the forefront of technological advancements, driving the industry towards new horizons and enabling our customers to achieve unprecedented success in their endeavors.

Listen, Innovate, Sustain

Selecting our CDU solutions means choosing a partner dedicated to providing a wide array of options for your data center needs. Enjoy the benefits of efficient cooling, energy savings, and a tailored solution that evolves with your infrastructure.

For inquiries and consultation, contact sales@inovadc.com.