

DLC 150 L2L / 4U

IN-RACK CDU

Compact rack-mounted coolant distribution for high-density AI and HPC infrastructure.

150 KW CLASS COOLING AT 4 C ATD

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SYSTEM OVERVIEW

The heart of rack-level liquid cooling

The In-Rack Coolant Distribution Unit (CDU) is installed directly in a standard server rack for high-density liquid cooling applications. It hydraulically separates the facility and IT-side loops while maintaining controlled coolant flow and temperature for critical compute equipment.

150 kW

COOLING CAPACITY AT 4 C ATD

4U

RACK FORM FACTOR

N+1

PUMP REDUNDANCY

DC 48V

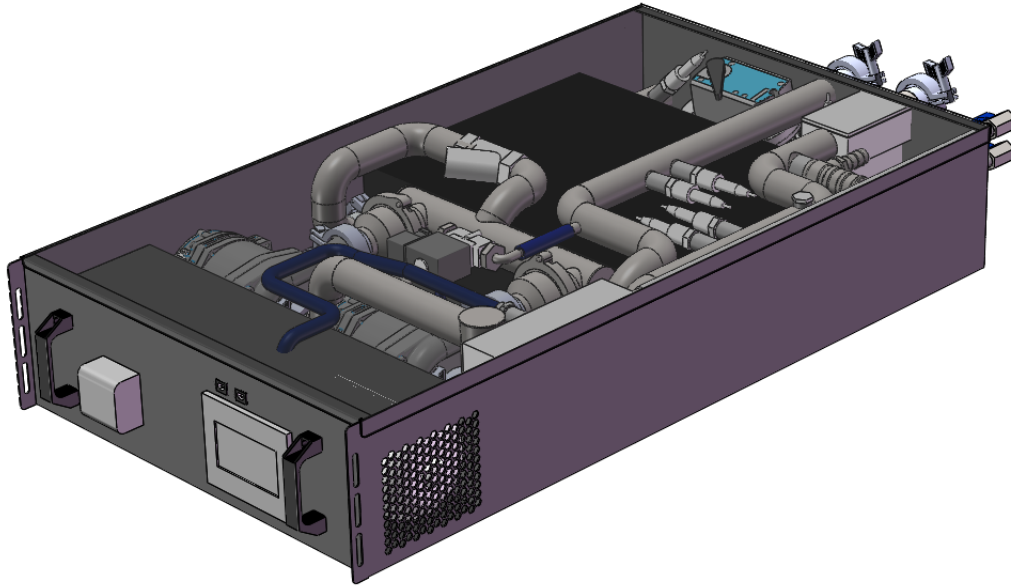
POWER SUPPLY

- Compact high-density footprint - Delivers 150 kW class cooling while preserving rack space for compute equipment.
- N+1 pump drive redundancy - Variable-speed pumps follow changing cooling demand and support continuous operation.
- Clean secondary loop - Plate heat exchange and secondary filtration protect server-side fluid quality.
- Dual power inputs - Redundant power architecture supports stable operation and project-level availability planning.
- Precision control - Temperature, pressure, flow, humidity, and leakage status are monitored for operating visibility.



MODULAR ARCHITECTURE

Factory-integrated functional modules



MODULE	FUNCTION
Heat Exchanger Module	Separates facility water from the clean IT-side coolant loop.
Pump Drive Module	Provides variable-speed circulation with N+1 redundancy.
Control & Data Acquisition	Monitors operating data and supports alarms and remote communication.
Pressure Stabilization	Maintains stable loop pressure and compensates for coolant volume changes.

Connections: Primary and secondary ports use 1-inch TriClamp fittings. Leakage detection is included as a system feature. Final site routing and mating components are confirmed during engineering review.

TECHNICAL SPECIFICATIONS

Model configuration: DLC 150 L2L

CATEGORY	PARAMETER	VALUE
Electrical	Power supply	DC 48V
Electrical	Nominal power	1.6 kW / 2.1 HP
Thermal	Cooling capacity @ ATD 4 C	150 kW (511.8 x 1000 Btu/h)
Thermal	Cooling capacity @ ATD 6 C	193 kW (658.5 x 1000 Btu/h)
Pressure	Maximum operating pressure	8 bar / 116.03 psi
Pressure	External residual pressure	1.2 bar / 17.4 psi
Flow	Primary flow rate (25% EG)	10.9 m3/h / 48 GPM
Flow	Secondary flow rate (25% EG)	11.4 m3/h / 50.2 GPM
Temperature	Primary working condition	36/48 C (96.8/118.4 F)
Temperature	Secondary working condition	40/52 C (104/125.6 F)
Connections	Primary / secondary ports	1-inch TriClamp Fitting
Fluid	Primary media	Facility cooling water
Fluid	Secondary media	PG25 / EG25 formulations
Dimensions	W x D x H	536 x 950 x 177 mm (21.1 x 37.4 x 7 in.)