

Liebert® XDU Coolant Distribution Unit

Liquid-Cooled Solution for Air-Cooled Environments



Overview

Internet of things (IoT), artificial intelligence (AI), and other data-intensive technologies like virtual reality are requiring data centers and colocation environments to deploy servers with ever-higher power and cooling requirements.

While liquid-cooled servers afford tremendous efficiency benefits in these high-density environments, it is no small task for an air-cooled data center to make the infrastructure changes needed to support liquid-cooled servers ... until now.

An ideal retrofit solution, the Liebert XDU liquid-to-air heat exchanger for chip cooling applications allows you to easily and cost-effectively tap into the advantages of liquid cooling with no need to redesign or replumb your air-cooled environment.

Benefits

- Reduced capital expenditures
- Simplified installation
- Optimized configuration with in-row or perimeter placement
- Improved heat rejection capacity
- Enhanced reliability and efficiency
- Ensured water quality

With its row-based format and 60 kW+ of heat rejection, the Liebert® XDU liquid-to-air heat exchanger removes the traditional barriers to liquid cooling, giving you a cost-effective means for deploying water-cooled servers where you need them to support advanced applications and higher rack densities.

The new Liebert XDU makes it possible for data centers to deploy liquid-cooled servers without running new water lines to the servers or giving up rack space to accommodate the hardware.

The row-based heat exchanger is an easy-to-deploy, fully-enclosed system that is filled at the time of installation and mounted adjacent to or nearby a cabinet of water-cooled servers. It uses only hose piping, and the integrated filter ensures water quality.

The Liebert XDU uses just enough liquid to absorb the rejected heat, greatly reducing the potential for leaks. The unit then converts the liquid heat into air and releases it into the data center to match your facility's current air-cooling configuration, seamlessly integrating with existing thermal management solutions.

Reliable, efficient heat rejection

With 60 kW+ of heat rejection, the Liebert XDU offers more than six times the cooling power of any similar competitive solution available today, making it ideal for efficiently handling the thermal needs of advanced hardware while giving you the room you need to grow.

The redundant pump design ensures the reliability of your cooling solutions while variable-speed controls and EC fans promote your efficiency goals by allowing you to set the flow rate based on facility conditions and automatically matching supply water temperature to the load.

Complete visibility and control

For further peace of mind, the Liebert® iCOM™ control display affords complete visibility into unit status and operating conditions, which can also be monitored remotely. You can set flow rates and receive alerts if operational parameters are askew or if the unit ever switches to the backup pump.

With the Liebert XDU, you get everything you need to quickly, cost-effectively, and confidently deploy liquid-cooled servers in your air-cooled data center in support of higher rack densities and next-generation, data-intensive technologies.



Technical Specifications

Physical Data

Dimensions (H x W x D)	2000 mm X 600mm x 1175mm, (78.75 in. x 23.625 in x 46.25 in)
Weight +/- 5%	Dry 361 kg (796 lbs.), Wet 384 kg (847 lbs.)

Output Capacity

Power Supply	208V, 3PH, 60Hz
Full Load Current	15A at 208V
Maximum Power	3.0 kW (at 100% fan speed)
Nominal Power	1.3 kW (at 50% fan speed)

Performance Data (at 45°C (113°F) water delivery and 24°C (75°F) air inlet)

Nominal Cooling Capacity	32.1 kW (at 50% fan speed)
Maximum Cooling Capacity	52.2 kW (at 100% fan speed)
Nominal Fluid Flow	46.2 l/min (12.2 USGPM)
Maximum Fluid Flow	75.3 l/min (19.9 USGPM)
Nominal Airflow	2825 m3/h (1663 CFM at 50% fan speed)
Maximum Airflow	5650 m3/h (3325 CFM)

Performance Data (at 50°C (122°F) water delivery and 24°C (75°F) air inlet)

Nominal Cooling Capacity	37.1 kW (at 50% fan speed)
Maximum Cooling Capacity	63.0 kW (at 100% fan speed)
Nominal Fluid Flow	54.5 l/min (14.4 USGPM)
Maximum Fluid Flow	90.8 l/min (24.0 USGPM)
Nominal Airflow	2825 m3/h (1663 CFM at 50% fan speed)
Maximum Airflow	5650 m3/h (3325 CFM)

*Performance data calculated with a 10°C (18°F) water side delta T

Additional Features

Maximum equivalent distance from heat load	25 ft (7.6 m)
Filtration	50 micron filter
Liebert XDU water volume	6.2 gallons



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