



Liebert XDC



Liebert XDV



Liebert XDH

Adding targeted cooling is more cost-efficient than trying to lower the temperature of localized hot spots by increasing the overall room air conditioning capacity.

The Liebert XD solution for high heat density cooling applications is a hybrid approach using a combination of floor mount mission-critical cooling units and supplemental cooling from the Liebert XD Series.

Added as heat loads increase, supplemental Liebert XD cooling capacity allows your room to adapt as heat loads rise — allowing cooling solutions to be added and reconfigured to react to the changes in your environment. Individual systems can improve interior air flow, cool hot air ejected from the enclosure or cool hot spots near the racks.

## Liebert XD Features & Benefits

Flexibility:	Higher Availability:	Lowest Total Cost Of Ownership:
<ul style="list-style-type: none"> <li>▪ Floor-mount or rack-mount modules, plus a choice of cooling capacities, cover any application requirements.</li> <li>▪ Plug and play for initial installation and future growth.</li> <li>▪ Can cool more than 30 kW per rack.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The Liebert XD solution assures continuous operation of critical IT systems under extreme heat conditions.</li> <li>▪ Designed to work with the hot aisle/cold aisle approach in both raised floor and non-raised floor applications, by efficiently drawing hot air out of equipment racks and moving cool air into the cold aisle.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Total energy savings potential of up to 40% can be achieved with the Liebert XD solution.</li> <li>▪ Minimal floor space requirements allow more room for IT equipment.</li> <li>▪ Liebert precision air conditioning products are backed by the Liebert Service Partner Network (LSNP) - the largest nationwide network of service providers in our industry - for installation, start-up and preventive maintenance.</li> </ul>

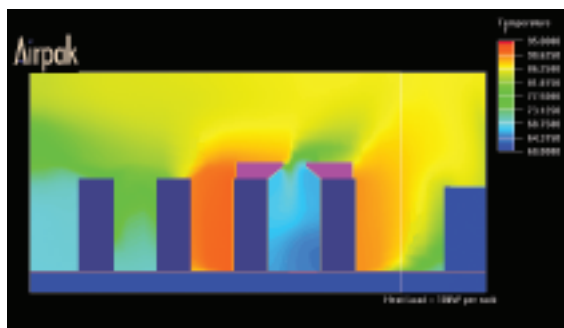
Frequently Asked Questions	
Question	Resolution
<b>I already have a cooling system. Why do I need XD?</b>	In many cases, high heat density hot spots or zones require targeted cooling solutions. The Liebert XD systems are specifically designed to address the higher heat loads that result from implementing blade servers or server consolidation strategies.
<b>What are the advantages of pumped refrigerant technology over water-based solutions?</b>	A leak in a water piping connection means that water could leak into the data center thus causing damage to equipment. Instead of water, Liebert uses environmental friendly refrigerant R-134a as the coolant in the XD cooling modules. The refrigerant would become a gas if a leak were to occur, thus causing no damage to the equipment within the space. In addition, the pumping unit (XDC) controls the refrigerant fluid temperature to always be above the actual dew point in the room so no condensation can occur.
<b>What is the warranty for the Liebert XD?</b>	The Liebert XD comes with a 1-year warranty and is available with preventive maintenance service options to ensure maximum efficiency of your equipment.
<b>How difficult is installation?</b>	The Liebert XD systems are designed as plug-and-play units and can be easily connected and disconnected to refrigerant lines. They can be easily reconfigured as heat densities in your computer room change. Additionally, Liebert offers complete installation and start-up services through the largest service organization in our industry.

Competitive Advantages	
You may be asked how the Liebert XD systems compare to other cooling methods or competitive products. Here are some major advantages:	
Feature	
<b>No Risk of Water Leaks</b>	The Liebert XD systems use pumped refrigerant, eliminating risk of leakage that can occur from using chilled water.
<b>Greater Capacity</b>	The Liebert XDV and XDH rated capacity of up to 30 kW is achieved at a lower rating point (lower inlet air temperatures and higher entering fluid temperatures) than other systems, thereby efficiently providing more capacity than the competition.
<b>Easily Reconfigured</b>	The Liebert XD flexible connection piping with quick-connect fittings makes the systems much easier to re-configure and expand than other types of cooling units that use limited flexibility plastic piping.

### Hot Aisle / Cold Aisle Approach

A common way to improve performance of existing raised floor cooling applications has been the “hot aisle/cold aisle” approach. In this configuration, rows of equipment racks are arranged in alternating “hot” and “cold” aisles. Only the cold aisles have perforated floor tiles that allow cool air to come up from under the raised floor.

The Liebert XD units enhance the Hot Aisle / Cold Aisle approach by filling the cold aisle with air at the temperature required for proper operation of the electronic equipment.



Views of Computational Fluid Dynamics (CFD) by Fluent.