Liebert® XDM Chilled Liquid Coolant

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.

Where these higher heat loads are required to be supported the Vertiv Liebert XDM paired with Vertiv™ Liebert® DCD family of Rack Door Cooling Modules is the ideal solution without increasing the rack footprint.

Flexible to work with a variety of standard IT Equipment and adaptable to support IT refresh cycles.

The Vertiv Liebert XDM features Liebert® iCOM™ cooling unit control for real time optimization of your cooling assets including monitoring and automation.

Benefits

- Supports High density Servers
- Modular configuration to grow as required
- Improved heat rejection capacity
- Enhanced reliability and efficiency
- Ensured water quality

With its compact modular format and up to 400 kW of heat rejection, the Vertiv[™] Liebert® XDM chilled liquid coolant distribution unit removes the traditional barriers of a centralized chiller to deploy liquid cooling directly where your high density infrastructure is located giving you a cost-effective flexible means for deploying high density rack servers where you need them to support advanced applications.

The new Liebert® XDM makes it possible for data centers to deploy liquid-cooled rack door cooling modules without a centralized facility chiller with coolant distributed directly to the rack doors overhead or underfloor with full control of flow and volume.

The perimeter-based unit is designed to be modular for flexibility to support immediate deployments and growth requirements with teamwork capabilities. Peace of mind with integrated Vertiv™ Liebert® Liqui-Tect™ leak detection.

The Liebert XDM is an indoor chiller that connects directly to the Liebert® DCD rack door cooling modules and provides circulation and control of the secondary fluid circuit.

The Liebert XDM primary circuit uses R 410A to Vertiv™ Liebert® MCV High Density Condenser with premium efficiency control and EC fans with operational efficiency in EconoPhase mode.

Reliable, efficient chilled coolant distribution

With up to 400kW of heat rejection, the Liebert XDM offers the cooling power to support multiple Liebert DCD passive or active rack door cooling modules making it ideal for efficiently handling the thermal needs of advanced IT equipment while giving you the capability to grow.

The redundant modular design ensures the reliability of your mission critical load. The variable-speed pump controls coolant flow to match heat load with your efficiency goals. The Flexibility of allowing you to set the flow rate based on facility conditions.



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 outside of boundary conditions or if the unit ever requires to switch to a backup unit.

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Table 1: Vertiv™ Liebert® XDM Data

Model	Liebert® XDM 200 (Single Module)	Liebert® XDM 400 (Dual Module)				
Dimensions						
H x W x D mm(inch)	1930mm x 1575mm x1192mm (76" x 62" x 46 7/8")	1930mm x 3096mm x1192mm (76" x 121 7/8" x 46 7/8")				
Weight Dry +/- 5% kg (lbs.)	1800 (816)	3205(1454)				
Customer Connections (secondary loop to RDHX or liquid cooled server racks)		Power Supply				
Chilled Water	2-1/2" (150 lb) CL Steel Pipe Flange Manual isolation valves,	Power Supply US 460V/60Hz Dual Power Feeds (ATS) Optional				
Chilled Water Valves	Maximum design water pressure 400 PSI [2758 kPA]					
Fluid type	Water / Water-glycol					
Number of Pumps	1					
Pump Redundancy						
Liebert XDM 200 (Single Module)	Single pump (N)					
Liebert XDM 400 (Dual Module)	N+1 of 200 kW modules					
XDM 200 & 400	25 ft (7.6 m)					
Liebert XDM water volume						
Liebert XDM 200 (Single Module)	6.2 gallons					
Liebert XDM 400 (Dual Module)	12.4 gallons					
Liebert XDM 400 (Dual Module):						

Liebert XDM 200 (Single Module)		Liebert XDM + MCV330 + PRE		Liebert XDM + MCV440 + PRE			
FLA	91.8	FLA	108.6	FLA	114.2		
WSA	97	WSA	113.8	WSA	119.4		
OPD	110	OPD	125	OPD	125		
The Liebert XDM400 consists of two separate Liebert XDM200 electrical feeds							

Customer Connections Fluid type (primary loop to Heat Rejection Skid) XDM

Liquid Line, O.D. Copper	7/8" O.D. Cu (Liquid)	Fluid type (primary loop to Heat Rejection Skid)	R410A				
Hot Gas Line, O.D. Copper	1-3/8" O.D. Cu (Gas)	Compressor type	Tandem				
Service Access	Front and Top						
Condenser Matchup	MCV330 or 440						
Matchup to Vertiv Cooling modules							
Rear door heat exchange	DCD35/50 Passive or Active (fan assist)						

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