

## Liebert<sup>®</sup> XDO<sup>™</sup> Overhead Cooling Module

Sensible Spot And Zone Cooling For High Heat Density Equipment



**The ceiling mounted Liebert XDO overhead cooling module provides sensible spot and zone cooling for high heat density equipment.**

The Liebert XDO draws in hot air through two opposite inlets and discharges cool air down into the cold aisle where the electronic equipment air inlets are located. This flexible, scalable and space saving product mounts to the ceiling — requiring zero floor space.

The Liebert XDO is a part of our high heat-density cooling product family that utilizes pumped refrigerant technology. The pumped refrigerant operates at low pressure in the system and becomes a gas at room conditions, making it ideal for use around electronic equipment. Since the Liebert XDO always provides 100% sensible capacity, the need for humidification is significantly reduced, further reducing energy usage and maintenance.

### **Smart Module technology:**

Liebert XDO Smart Modules include integrated control boards that provide the following capabilities:

- Monitor fan status on the module with an on-unit, red/green LED
- Be alerted to the presence of condensation
- Remotely shutdown the module via dry contact closures

### **Flexibility:**

- Can cool more than 500 W/sq.ft. (5400 W/m<sup>2</sup>).
- Smart Module or Standard configurations available.
- No floor space required.
- Complements Liebert precision cooling units.
- Excellent for spot and zone cooling.
- Scalable.
- Flexible installation with several connection possibilities.
- Optional pre-charged flexible piping with threaded quick-connect fittings allows adaptive and scalable expansion without interruption of cooling operations.
- Possible to be fully installed from an existing cold aisle without the need for reaching over existing racks.
- Compatible with Liebert XDP, Liebert XDP with iCOM and Liebert XDC systems.

### **Higher Availability:**

- Uses pumped refrigerant, which is ideal for use around electronic equipment.
- Complete packaged unit includes enclosure, coils, fan and piping.

### **Lowest Total Cost Of Ownership:**

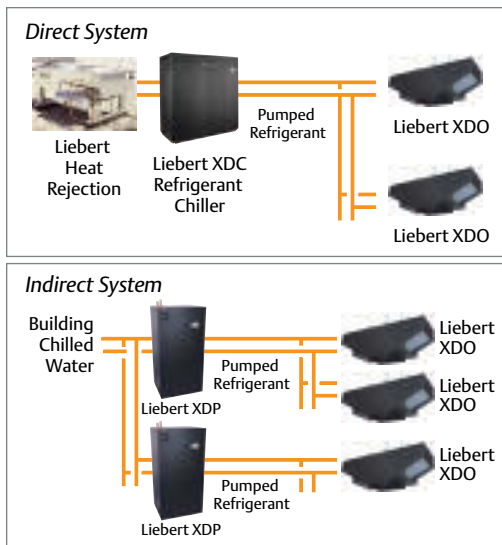
- Superior cost for cooling per high heat density rack.
- Highly Energy Efficient.

## Technical Data

	XDO16	XDO20
Nominal Capacity, 60 Hz <sup>1</sup>	17.2 kW / 5 Ton	20 kW / 5.7 Ton
Nominal Capacity, 50 Hz <sup>1</sup>	17.1 kW / 4.9 Ton	17.7 kW / 5 Ton
Nominal Airflow, 60Hz	2700 CFM (4590 m <sup>3</sup> /h)	
Nominal Airflow, 50Hz	2250 CFM (3820 m <sup>3</sup> /h)	
Input Voltage	120 V, 1 ph, 60 Hz 220-240 V, 1 ph, 50/60 Hz	
Full load amps	2.7A @ 120V, 1ph, 60 Hz 1.5A @ 230V, 1ph, 50 Hz	
Audible Noise, 60 Hz / 50 Hz	85 dBa / 83 dBa Sound Power	
Height, module only	22.5" (572 mm)	
Width	72.0" (1829 mm)	
Depth	24" (610 mm)	
Weight, empty	150 lbs (68 kg)	
Options	Smart Module Control Board (Includes Condensate Detection) Quick Connect Couplings (for Flexible Piping)	

<sup>1</sup>Nominal Capacity Rating is @ 55°F (13°C) Entering Fluid Temperature and 92°F (33°C) Entering Air Temperature.  
Max capacity 60Hz: XDO16 - 17.2kW @ 90 F (32 C), XDO20 - 23kW @ 100 F (38 C)  
Max capacity 50Hz: XDO16 - 17.2kW @ 93 F (34 C), XDO20 - 23kW @ 103 F (39 C)

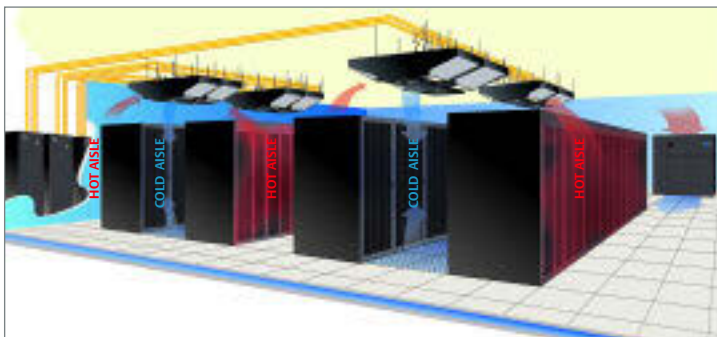
## Liebert XD Hydraulic System Schematic



The indoor Liebert XDC refrigerant chiller is specifically designed to support Liebert XD cooling modules. The Liebert XDC connects directly to the XD modules.

When a building chilled water system is available, the Liebert XDP pumping unit is utilized as an interface between the pumped refrigerant circuit and the chilled water system.

Both the Liebert XDC and the XDP units circulate the refrigerant to Liebert XD units, while maintaining the refrigerant at a temperature always above the actual dewpoint.



The Liebert XDO systems work extremely well with the "hot aisle-cold aisle" approach.

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