

Vertiv™ Liebert® XD Horizontal Row Cooler (XDH) GUIDE SPECIFICATIONS

1.0 GENERAL

1.1 Summary

These specifications describe requirements for an air conditioning system designed for cooling of high heat density equipment. The system shall be designed to maintain conditions within the space with heat emitting equipment. The manufacturer shall design and furnish all equipment to be fully compatible with heat dissipation requirements of the site.

1.2 Design Requirements

The air conditioning system shall be a Liebert® XDH factory-assembled unit. The unit shall be designed for draw-through air arrangement to ensure even air distribution to the entire face area of the coils.

1.3 Submittals

Submittals shall be provided with the proposal and shall include: Dimensional, Electrical and Capacity data; typical Piping and Electrical Connection.

1.4 Warranty

The system shall be provided with a warranty against defects in material and workmanship.

1.5 Quality Assurance

The specified system shall be factory-tested before shipment and designed to meet NRTL requirements. The system shall be designed and manufactured according to world-class quality standards. The manufacturer shall be ISO 9001 certified.

2.0 PRODUCT

2.1 Standard Features XDH

2.1.1 Vertiv™ Liebert® XDH Module

Liebert® XDH module shall include micro channel cooling coils and fans housed in a cabinet and be rated at 55°F (12.8°C) entering fluid temperature, 98°F (37°C) entering air temperature, 50°F (10°C) or lower dew point.

- XDH20 (60Hz) - Nominal cooling capacity of 22 kW (75,000 BTUH) at 2,500 CFM (4,200 m³/h)
- XDH32 (60Hz) - Nominal cooling capacity of 30 kW (102,000 BTUH) at 4,000 CFM (6,800 m³/h)
- XDH20 (50Hz) - Nominal cooling capacity of 22 kW (75,000 BTUH) at 2,428 CFM (4,125 m³/h)
- XDH32 (50Hz) - Nominal cooling capacity of 30 kW (102,000 BTUH) at 3,850 CFM (6,541 m³/h)

2.1.2 Cooling

Fluid shall be supplied to the Liebert® XDH from a Vertiv™ Liebert® XD Pumping Unit (XDP) or a Vertiv™ Liebert® XD Chiller (XDC) to prevent coil condensation and optimize the fluid temperature to the Liebert® XDH module.

2.1.3 Fans

Each module shall consist of six (6) axial fans with finger guards.

2.1.4 Electrical

Each module shall be equipped with two (2) 10 ft. (3.0 m) power cords, primary and secondary, attached with IEC connectors to the rear of the unit. Each cord shall have a NEMA 5-15P (IEC 320-C14) plug at the end. CE listed version of the unit shall have permanently attached power cords.

2.1.5 Piping

Factory-installed piping shall be leak-tested and pressure-tested prior to shipment from the factory.

2.1.6 Dual Power Cords

Each module shall have dual power cords with automatic switching.

2.2 Optional Features Liebert® XDH

2.2.1 Smart Module

The Liebert® XDH is available with optional factory-installed control boards and condensate detection for the drip pan. The module shall have connection points (dry contacts) in the electrical box for connection of outgoing alarm cables for condensate detection, fan failure and for remote shutdown.

2.2.2 Pipe Connection

The XDH is available with optional factory-installed “one-shot” type pipe connections (for field connection of Flexible Piping).

2.2.3 Front Air Discharge Diffuser

The XDH is available with different front air discharge diffusers; for front air discharge to both sides or for front air discharge to one side.

2.3 Electrical Requirements

- Each XDH32 module shall require 10 FLA at 120V-1ph-60Hz or 5 FLA at 230V-1ph-50Hz, respectively.
- Each XDH20 module shall require 5 FLA at 120V-1ph-60Hz or 2.5 FLA at 230V-1ph-50Hz, respectively.

3.0 EXECUTION

3.1 Installation of Vertiv™ Liebert® XDH

3.1.1 General

Install the unit in accordance with the manufacturer's installation instructions. Maintain recommended service clearances as outlined in the installation instructions.

3.1.2 Piping Connections

Install and connect devices furnished by the manufacturer but not specified to be factory mounted. Furnish a copy of the manufacturer's piping connection diagram submittal to the piping contractor.

3.1.3 Supply and Return Piping

Connect supply and return connections to the Liebert® XDH module.

3.2 Field Quality Control

3.2.1 Startup

Start up the air conditioning unit in accordance with the manufacturer's startup instructions. Test controls and demonstrate compliance with requirements.

NOTE: These Guide Specifications comply with the outlines of the Construction Specifications Institute per CSI MP-2-1 and MP-2-2. In correspondence, reference Liebert document SL-17205_REV04_09-21.