

# Vertiv™ Liebert® XD Vertical Top Cooler (XDV) 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 Vertiv™ Liebert® XDV 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 Drawings.

### 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

#### 2.1.1 Vertiv™ Liebert® XDV Module

Liebert® XDV module shall include cooling coil and fans housed in a cabinet and be rated at 55°F (12.8°C) entering fluid temperature, 98°F (36.6°C) entering air temperature and 50°F (10°C) or lower dew point.

- XDV8 (60Hz) - Nominal cooling capacity of 8 kW (27,300 BTUH) at 1,000 CFM (1,700 m<sup>3</sup>/h)
- XDV10 (60Hz) - Nominal cooling capacity of 10 kW (34,000 BTUH) at 1,000 CFM (1,700 m<sup>3</sup>/h)
- XDV8 (50Hz) - Nominal cooling capacity of 6.5 kW (22,200 BTUH) at 833 CFM (1,400 m<sup>3</sup>/h)
- XDV10 (50Hz) - Nominal cooling capacity of 8.3 kW (28,300 BTUH) at 1,000 CFM (1,700 m<sup>3</sup>/h)

#### 2.1.2 Cooling

Fluid shall be supplied to the Liebert® XDV from a Vertiv™ Liebert® XD Pumping Unit or a Liebert® XD refrigerant chiller to prevent coil condensation and optimize the leaving fluid temperature.

#### 2.1.3 Fans

Each module shall consist of two (2) axial 8" fans with finger guards.

#### 2.1.4 Electrical

Each module shall be equipped with two (2) detachable 10 ft. (3.05 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.

#### 2.1.5 Sound

The sound power rating with all fans running at maximum speed shall not exceed 80 dB(A) per XDV module.

#### 2.1.6 Piping

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

#### 2.1.7 Dual Power Cords

Each module shall have dual power cords with automatic switching.

### 2.2 Optional Features Liebert® XDV

#### 1. Smart Module

The Liebert® XDV is available with an optional factory-installed control board 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 remote shutdown.

#### 2. Pipe Connection - Flexible Piping

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

### 2.3 Electrical Requirements

Each Liebert® XDV module shall require 2 FLA at 120V-1ph-60Hz or 1 FLA at 230V-1ph-50Hz.

## 3.0 EXECUTION

### 3.1 Installation of Vertiv™ Liebert® XDV

#### 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® XDV 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-16627\_REV3\_09-21.**