Precision Cooling
For *Business-Critical Continuity*™

Liebert XDK-W™

Rack Enclosure With Integrated Water-Based Cooling For High Heat Density Electronics

Blade servers and other rack-based, extreme density IT equipment require a high level of cooling, power and security support. The Liebert XDK-W meets this challenge with a proven integrated rack enclosure solution that creates a protective environment for these critical electronic components.

Completely sealed from room air, high density server racks inside the Liebert XDK-W utilize closed air circulation for cooling. The server heat load is dissipated into the process cold water system through an air-to-water heat exchanger in the bottom of the rack. Redundant high-performance fans drive closed loop air circulation in the rack's interior, while servers are supplied with cold air at the front of the rack.

The Liebert XDK-W is a part of the Liebert XD high heat-density cooling product family. Key to the performance and space efficiency of Liebert XDK-W is the Liebert Pumping Unit, XDP-W. The unit houses the isolating heat exchanger between the Liebert XDK-W water circuit and the building chilled water, as well as the control valve, pumps and system controls. It controls the fluid temperature to always be above the actual room dewpoint to prevent condensation on the piping and the coils.

Rear Front

Flexibility:

- Autonomous server rack; independent from environmental conditions.
- Secure and reliable cooling capacity of up to 25kW.
- Highest packing density for high-performance servers, consequently, up to 80% floor space saving in the data center.
- Reduced room and building requirements.
- User-friendly and service-optimized.
- Quiet operation is ideal for applications where noise containment is required.

Higher Availability:

- High performance air-to-water heat exchanger.
- Channeled air flow in the rack for optimized efficiency.
- Heat discharge via cooling water.
- Fans with temperature-dependent speed control.
- Fans, n+1 redundant.
- Automatic front and rear door opener operates in case of overheating in the rack.
- Integrated Alarm management.
- Highest possible leakage safety with strict separation of heat exchanger and servers.
- Optional remote monitoring with Liebert vEM-14 for temperature(s) and operating status/alarms. Supports 10Mbit Ethernet connection. Provides Web interface using HTTP, user authentication, e-mail and paging notification, SNMP support including Nform and graphing.

Lowest Total Cost Of Ownership:

- Up to 30% improved cooling system energy efficiency.
- System scalability protects initial investment.
- Variable speed fans optimizes energy efficiency.

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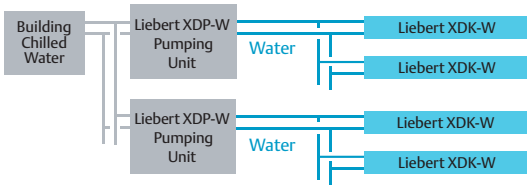
Liebert XDK-W Technical Data

	XDK-W 17 kW	XDK-W 25 kW
Nominal Cooling Capacity@ 54°F (12°C) EFT	17 kW	25 kW
Height	86.6" (2200 mm)	
Width	31.5" (800 mm)	
Depth	47" (1200 mm)	
Usable Space For Electronic Equipment	40 U High + 7 U Vertical[1]	37 U High + 7 U Vertical[1]
Max Electronic Equipment Depth	29" (740 mm)	
Nominal Supply Air Temperature to Electronic Equipment	68°F (20°C)	
Weight, Empty	683 lbs (310 kg)	750 lbs (340 kg)
Max Weight, Filled	2,800 lbs (1310 kg)	
Max Operating Water Pressure	145 psi (10 Bar)	
Water Flow Rate	11.3 GPM (2.55 m^3/h)	16.4 GPM (3.72 m^3/h)
Water Temperature, Supply/Return	54°F (12°C) / 64.5°F (18°C)	
Max Air Flow	1,800 CFM (3,100 m^3/h)	2,650 CFM (4,500 m^3/h)
Sound Pressure Level	55 dB(A) at 3 ft (1 m)	
Input Voltage	200-240V, 1ph, 50/60Hz	200-264V, 1ph, 50/60Hz
Max Power Draw	1400 W	1800 W
Approvals	CSA	CE

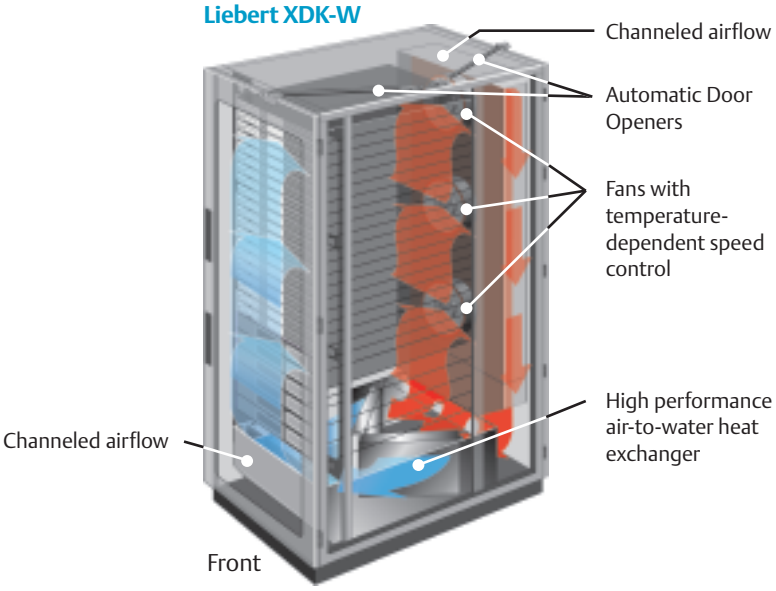
[1] 3x1U + 2x2U

The Liebert XDP-W Pumping Unit houses the isolating heat exchanger between the Liebert XDK-W water circuit and the building chilled water.

System Configuration



Liebert XDK-W



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