Liebert[®] PDX[™] and Liebert PCW[™] Compact Perimeter Cooling Solutions







Introducing thermal management solutions that efficiently lower your operating costs and pack a lot of capacity into a small footprint.



Liebert PDX and Liebert PCW compact perimeter cooling solutions let you achieve the highest efficiency and protection with low capital, installation and maintenance costs. They replace the highly regarded and popular Liebert Challenger[™] 3000 data center cooling system, offering enhanced features including:

- Net capacity per footprint of 3.6kW per square foot – the industry's highest
- Industry's most compact footprint
- Wide capacity range of 17kW 29kW
- Compliance with U.S. Department of Energy minimum efficiency standards for data center equipment
- High efficiency fans and compressors
- Hydrophillic slab coil

Options include

- Air Cooled (using the Liebert MC[™] Condenser); water glycol; dual cool; chilled water
- Upflow, downflow, front & side discharge
- Infrared and steam gen humidifiers
- Electric reheat
- All 60 Hz voltages including 575V

Liebert iCOM[™]-S thermal system control is available for optimizing the performance of multiple cooling units and providing access to operational data, system diagnostics and trending.

Flexible Configurations

Direct Expansion System

- Liebert PDX Downflow: 18kW, 23kW, 29kW capacities (5, 6.5, 8 Tons respectively)
- Liebert PDX Upflow: 18kW, 23kW, 29kW capacities (5, 6.5, 8 Tons respectively)



Chilled Water System

- Liebert PCW Downflow: 17kW, 29kW capacities (5, 8 Tons respectively)
- Liebert PCW Upflow: 17kW, 29kW capacities (5, 8 Tons respectively)



CHILLED WATER SYSTEM

Two times the efficiency of the industry-standard Liebert Challenger 3000

Operate More Efficiently and Effectively

Ideal Applications

- Small and medium IT spaces
- Telecommunications switching offices
- Industrial process control
- Laboratories and medical imaging suites

Higher Energy Efficiency

- 25% more efficient than the industry-standard Liebert Challenger 3000 in DX configuration and more than twice as efficient as the Liebert Challenger 3000 in chilled water configuration
- Compliant with U.S. Department of Energy minimum efficiency standards for data center equipment
- Industry-leading Liebert[®] iCOM[™] unit control with advanced algorithms for air temperature and fan speed coordination
- EC Fans reduce motor energy usage by 10-30%, compared to standard AC motors. More efficient than centrifugal blowers even when operating at 100% fan speed
- Unique, floor-level air discharge configuration reduces mix between hot and cold air, improving efficiency

More Efficient than the DOE Minimum Efficiency Standards



Greater Protection

- Self-optimizing features and advanced controls fine-tune system operations for fewer adverse events and longer equipment life providing availability approaching 100%
- Liebert iCOM unit control provides access to system status, operations and event log and maintenance history
- Advanced freeze and pressure routines to prevent icing on coils and locked out compressors

Lower Capital, Installation and Maintenance Costs

- Liebert iCOM controls provide faster installation, easy event identification and self-optimization for mantaining optimal performance without manual intervention.
- No fan belts to maintain and replace
- Easy access at front and side for faster servicing



Direct Expansion Air-Cooled System	PX018	PX023	PX029	
Net Capacity Data - Std. Airflow	kW (Btuh)	kW (Btuh)	kW (Btuh)	
75 °F DB, 61 °F WB (45% RH)				
Total	17.7 (60.4)	22.9 (78.1)	28.9 (98.7)	
Sensible	16.5 (56.3)	20.4 (69.6)	26.2 (89.4)	
Fan Data (3.1kW EC Blower)				
Std. Airflow*	2800	3500	4300	
Std. Fan Motor, kW (HP)	3.1 (4.2)	3.1 (4.2)	3.1 (4.2)	
External Static Pressure, in. WG (Pa)	0.2 (50)	0.2 (50)	0.2 (50)	

Chilled Water Sytem	PW017	PW029			
Net Capacity Data - Std. Airflow	kW (Btuh)	kW (Btuh)			
75 °F DB, 61 °F WB (45% RH)					
Total	14.2 (48.5)	25.6 (87.4)			
Sensible	13.5 (46.1)	24.32 (83.0)			
Flow Rate, GPM (I/m)	12.7 (48)	22.7 (86.4)			
Unit Pressure Drop, ft. of water (kPa)	10 (30)	25.2 (75)			
Fan Data (3.1kW EC Blower)					
Std. Airflow*	3500	4800			
Std. Fan Motor, kW (HP)	3.1 (4.2)	3.1 (4.2)			
External Static Pressure, in. WG (Pa)	0.2 (50)	0.2 (50)			

* Airflow data rated with 2" MERV 8 filter, rated per ASHRAE 52.2-2007.

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