



VERTIV[™]

Liebert[®]

PDX[™] and PCW[™]

Compact Perimeter
Cooling Solutions



Compact Perimeter Cooling Solutions

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

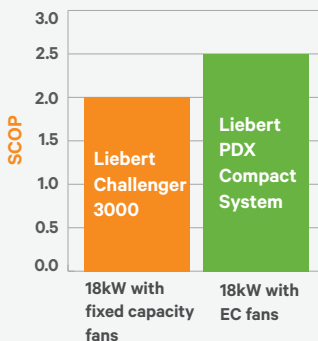
Liebert® PDX™ and Liebert PCW™ compact perimeter cooling solutions let you achieve the highest efficiency and protection with low capital, installation and maintenance costs. They replace the highly regarded and popular Liebert Challenger™ 3000 data center cooling system, offering enhanced features including:

- Net capacity per footprint of up to 3.6kW per square foot – the industry's highest
- Industry's most compact footprint
- Wide capacity range of 11kW – 29kW
- Compliance with U.S. Department of Energy minimum efficiency standards for data center equipment
- High efficiency fans and compressors
- Hydrophillic slab coil

Operate More Efficiently and Effectively

Direct Expansion System

- Liebert PDX: 11kW, 18kW, 23kW, 29kW capacities (3, 5, 6.5, 8 Tons, respectively)



DX SYSTEM 25% more efficient than the industry-standard Liebert Challenger 3000

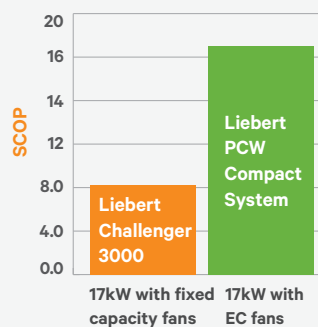
Options include

- Air -cooled; water/glycol-cooled; GLYCOOL™ Free-cooling; dual cool (DX & CW); chilled water
- Upflow, downflow, front & side discharge
- Infrared and steam gen humidifiers
- Electric reheat
- All 60 Hz 3-phase 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.

Chilled Water System

- Liebert PCW Downflow: 11kW, 17kW, 29kW capacities (3, 5, 8 Tons respectively)



CHILLED WATER SYSTEM- Two times the efficiency of the industry-standard Liebert Challenger 3000

Flexible Configurations

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

SCOP (Sensible Coefficient of Performance)=Net Sensible Cooling Capacity/Total System Energy Consumption SCOP (Sensible Coefficient of Performance)=Net Sensible Cooling Capacity/Total System Energy Consumption

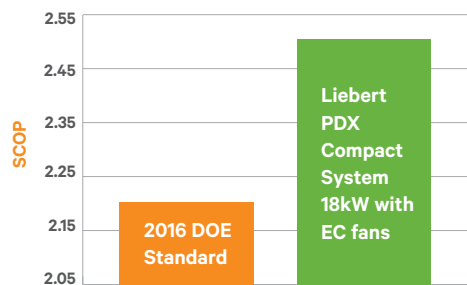
Greater Protection

- 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 maintaining optimal performance without manual intervention
- No fan belts to maintain and replace
- Easy access at front and side for faster servicing

More Efficient than the DOE Minimum Efficiency Standards



Direct Expansion Air-Cooled System

	PX011	PX018	PX023	PX029
Net Capacity Data - Std. Airflow - Upflow	kBtuh (kW)	kBtuh (kW)	kBtuh (kW)	kBtuh (kW)
75°F DB, 52°F DP (44.6% RH)				
Total	37.1 (10.9)	63 (18.5)	81.2 (23.8)	101 (29.6)
Sensible	33.4 (9.8)	59.4 (17.4)	74 (21.7)	89.2 (26.1)
Fan Data				
Std. Airflow, CFM (CMH)	1800 (3060)	2800 (4757)	3500 (5946)	4300 (7305)
Std. Fan Motor, HP (kW)	1.3 (1)	4.15 (3.1)	4.15 (3.1)	4.15 (3.1)
External Static Pressure, in. WG (Pa)	0.8 (199)	0.8 (199)	1 (249)	1 (249)

Chilled Water System

	PW011	PW017	PW029
Net Capacity Data - Std. Airflow - Upflow	kBtuh (kW)	kBtuh (kW)	kBtuh (kW)
75°F DB, 52°F DP (44.6% RH), 45°F EWT, 55°F LWT			
Total	38.6 (11.3)	53.8 (15.8)	87.4 (25.6)
Sensible	36.9 (10.8)	52.8 (15.5)	82.2 (24.1)
Flow Rate, GPM (l/m)	8.1 (30.7)	11.9 (45)	19.4 (73)
Unit Pressure Drop, ft. of water (kPa)	4.3 (12.8)	8.4 (25.1)	13.1 (39.3)
Fan Data (3.1kW EC Blower)			
Std. Airflow, CFM (CMH)	1800 (3060)	3500 (5946)	4300 (7305)
Std. Fan Motor, HP (kW)	1.3 (1)	4.15 (3.1)	4.15 (3.1)
External Static Pressure, in. WG (Pa)	0.8 (199)	0.8 (199)	1 (249)





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