

TODAY'S ENERGY EFFICIENT DATA CENTER

FACT

Cooling equipment accounts for as much as **40%** of data center operating costs.

CHALLENGE

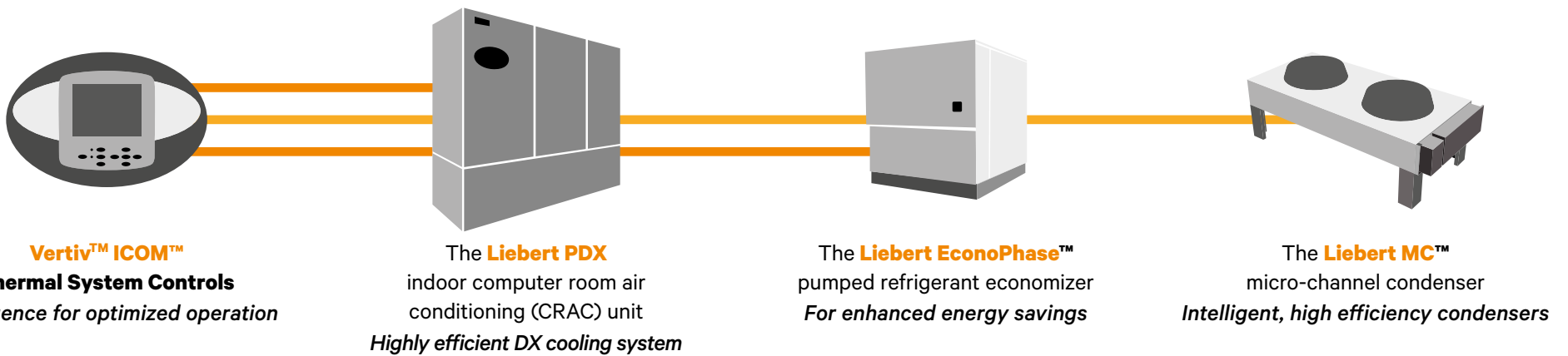
Medium and large data centers need to **reduce costs** while **preserving availability**.

SOLUTION

The **Liebert® PDX** is the most energy-efficient room-based direct expansion (DX) cooling system in the industry. Up to **70% more efficient** than alternative DX solutions, the system improves thermal management and control, while drastically cutting energy costs and lowering pPUE.

INTEGRATED SYSTEM OPTIMIZES EFFICIENCY

The Liebert PDX direct expansion cooling system - each component operates at the industry's highest efficiency, and the lowest total cost of ownership.

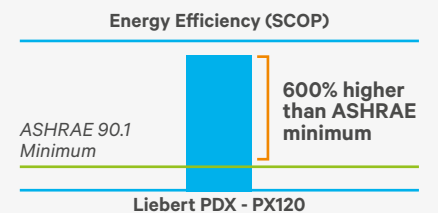


STEPS TO AN EFFICIENT DATA CENTER

1

SHATTER INDUSTRY STANDARDS

The **Liebert PDX** operating in **EconoPhase™** mode is up to 600% more efficient during cold ambient hours than the ASHRAE 90.1 minimum requirements for cooling equipment efficiency¹, and capable of achieving a money-saving **cooling pPUE as low as 1.05**.



2

REDUCE OR ELIMINATE COMPRESSOR RUNTIME

The **Liebert EconoPhase** pumped refrigerant economizer automatically switches to economizer operation to **reduce or eliminate compressor run time** during periods of lower outdoor temperature. **SYSTEM ENERGY CONSUMPTION IS REDUCED BY UP TO 70%**.²

Plus: No water. No water treatment. No outside air contamination.



3

STOP UNNECESSARY COOLING

Why waste energy that's not needed?

Even without economization, the Liebert PDX operates at higher efficiency than other technologies, with variable speed electronically commutated (EC) plug fans, Digital Scroll™ compressors, electronic expansive valves and ICOM controls that vary cooling and airflow to match fluctuating I.T. requirements.

The result?

A 23% reduction in power consumption. Cooling accounts for 40% of total energy use for the average data center - about 2.96 billion in cooling costs.³

A 23% reduction

would save approximately € 602,400,000 - that's enough to buy enough smart phone USB charging cable to stretch from Buffalo, New York to Beijing, China... and back!^{4,5}



4

PUT MONEY BACK IN YOUR POCKET

These improvements can result in energy savings of € 177,000 or more, based on geographical location and EconoPhase usage.⁶

THAT'S ENOUGH TO BUY AN ITALIAN SPORTS CAR.⁷



LEARN MORE For more information on the Liebert PDX, visit

or contact your local sales representative.

¹ ASHRAE 90.1 minimum standards for at full-load 35°C outdoor ambient conditions

² Compared to glycol-based cooling systems with water-side economizers

³ Energy Star's Report to Congress on Server and Data Center Efficiency

Opportunities, http://www.energystar.gov/index.cfm?c=prod_development.server_efficiency#principles

⁴ Cost and length of smart phone USB charging cable:

<http://store.apple.com/us/product/MD818ZM/A/lightning-to-usb-cable>

⁵ Google Maps, www.googlemaps.com

⁷ http://www.motortrend.com/new_cars/01/lamborghini/