Solutions
For *Business-Critical Continuity*™

Energy-Efficient Cooling Solutions Enabling Data Centers To Meet Energy Mandates

Depending on your data center's design, cooling costs could be taking big bites out of your budget. Professionals the world over are implementing energy efficient Liebert technologies to conserve energy, without sacrificing quality and availability.

Reliable Energy Savings With An ROI In Just Months.

Liebert cooling solutions from Emerson Network Power are **ideal for stimulus/ARRA projects** and most any federal contract vehicles supporting DoD or civilian agencies. Liebert solutions deliver proven energy savings in a variety of IT and data center applications and environments.

For Base Room Or Row Direct Expansion Packaged Cooling Without A Central Building Chiller

- **Liebert DS Room-Based Cooling** – these units feature advanced iCOM controls and digital scroll compressors to maximize efficiency and availability. Variable Speed Drives allow load-matching performance which in return can save up to $60,000 in energy cost per unit. Digital scroll technology allows for compressor cycling only when needed, to eliminate wasted performance.
- **For Small To Midsize IT Spaces** - the Liebert CRV is the most energy efficient row-based cooling solution on the market (compared to equal sized units). This system combines a digital scroll compressor with EC fans and Liebert iCOM controls to deliver self-adapting efficient cooling for raised or non-raised floors. In addition, you can monitor and control up to 10 racks from one cooling unit to ensure optimum efficiency, flexibility and IT performance.

Digital Scroll Compressor

Variable Speed Drive

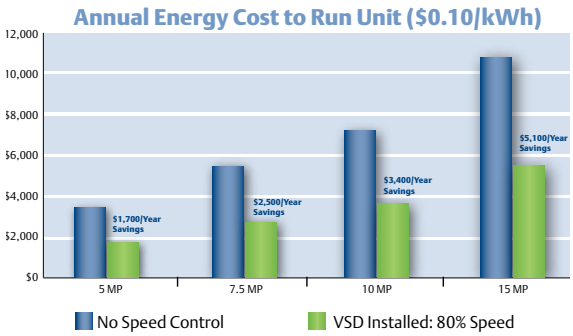
EC Fan

EMERSON™
Network Power

More Energy Efficient Cooling Solutions To Serve Your Needs

For Data Centers Utilizing A Central Building Chilled Water Supply

- **Retrofit Your Existing Liebert Deluxe System/3 Chilled Water System–** installing a Variable Speed Drive reduces energy consumption by up to 65% at 80% speed. The system can pay for itself in less than a year.



- **Install New Liebert CW Systems** – and benefit from the high-capacity cooling and efficient design that includes the latest in EC plug fans on downflow models, or Variable Speed Drive motors on centrifugal fans in upflow or downflow configurations. Energy cost savings can provide an ROI of 12 months or less.

For High Heat Density Applications

Emerson Network Power developed the first Liebert XD high density cooling system in 2002. Liebert XD modules can be installed on the top of the rack, suspended from the ceiling, in the row, or as a rear door fanless heat exchanger. Combined with precision cooling, these high density solutions can solve problem zones or be designed to cool entire high density data centers. This approach brings flexibility while lowering energy usage 30-50%.

High Density Cooling Options Fit Any Room Configuration

Liebert XDR
No Fans

Liebert XDH

Liebert XDV

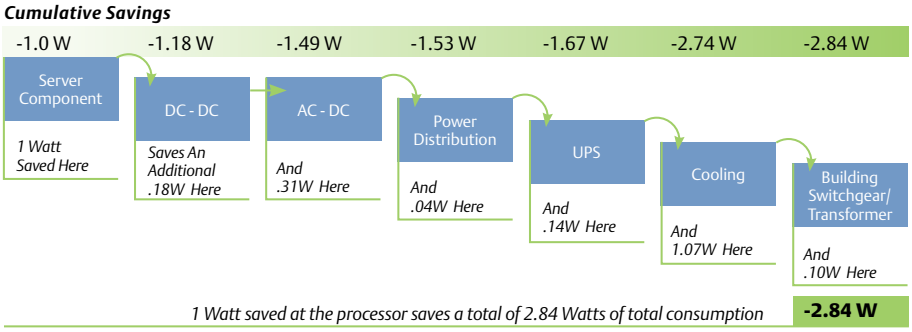
For A Truly Optimized Data Center

Emerson Network Power's Energy Logic™ operates as a roadmap that provides 10 strategies to improve overall data center efficiency. By focusing on root causes starting with the server, a cascading effect takes place that can improve the efficiency of the entire data center by up to 50%.

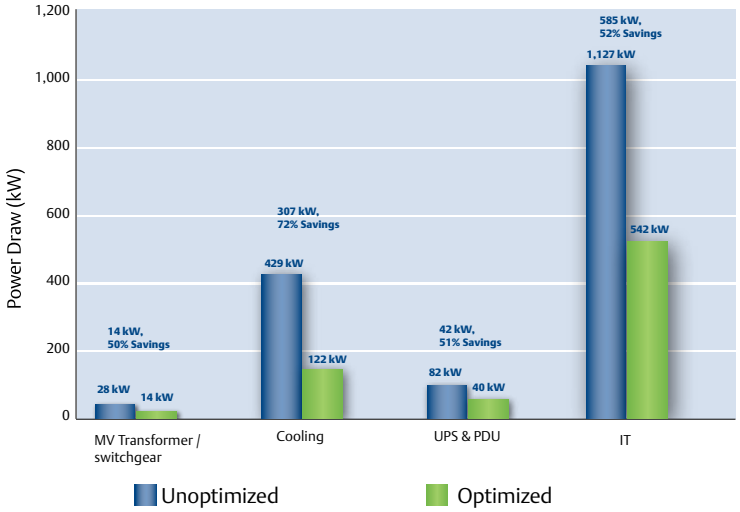
Emerson Network Power analyzed the available energy-saving opportunities and identified the top 10. Each of these 10 opportunities were then applied to a 5,000-square-foot data center model based on real-world technologies and operating parameters.

The model demonstrates that reductions in energy consumption at the IT equipment level have the greatest impact on overall consumption because they cascade across all supporting systems.

This approach has the added benefit of removing the three most critical constraints faced by data center managers today: power, cooling and space. In the model, the 10 Energy Logic strategies freed up two-thirds of floor space, one-third of UPS capacity and 40 percent of precision cooling capacity.



Total Energy Logic Savings With All 10 Strategies Applied



Pick your starting place, then leverage one or all the recommendations. You will find a white paper on Energy Logic on our website at EmersonNetworkPower.com.

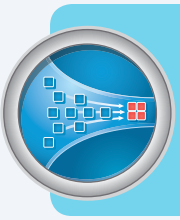
Efficiency Without Compromise™

Efficiency Without Compromise™ provides a path to optimize data center infrastructure around design, operating and management efficiencies—while maintaining or improving availability. This is achieved through the proper selection and utilization of cooling, power, and monitoring technologies, supported by key services and local expertise.

INFRASTRUCTURE MANAGEMENT
Improving performance of the IT infrastructure and environment

ECO AVAILABILITY
Balancing high levels of availability and efficiency

FLEX CAPACITY
Adapting to IT changes for continuous optimization and design flexibility

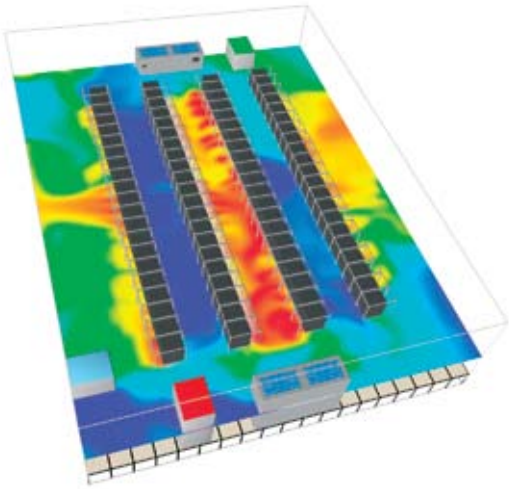


HIGH DENSITY
Delivering architectures from 10-60 kW/Rack to minimize space and cost

Need Help Getting Started?

A Data Center Assessment is often the first step in identifying areas of vulnerability or energy inefficiency. After analyzing your room, including thermal and electrical conditions, we'll arm you with detailed reports that clearly spell out the status with recommendations so you can effectively improve your operation's availability and energy performance.

Local experts are available to help you with any project. Their expertise is an important facet of Efficiency Without Compromise.



Maximize Your Efficiency And Availability

Deploy new systems with assurance. Eliminate downtime, hot spots, rack/enclosure limitations, and monitor critical systems while enhancing efficiencies.

- **Energy Efficiency** – requires cost reduction and Liebert products from Emerson Network Power can reduce data center energy costs 30-60%.
- **Consolidation And Virtualization** – often brings greater density, more power and heat, and higher availability requirements. Liebert cooling, power and monitoring systems alleviate these data center constraints.
- **High Availability** – requires improved power schemes, precision cooling solutions, and better monitoring of critical components.
- **IP Telephony** – calls for more rigorous power, more cooling and an improved infrastructure. Emerson Network Power delivers everything needed to ensure success.
- **Security Initiatives** – can mean opportunities to harden the data center. This often demands greater power protection, monitoring and uptime requirements.

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Emerson Network Power.
The global leader in enabling *Business-Critical Continuity*™.

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- Connectivity
- DC Power
- Embedded Computing
- Embedded Power
- Infrastructure Management & Monitoring
- Outside Plant
- Power Switching & Controls
- Precision Cooling
- Racks & Integrated Cabinets
- Services
- Surge Protection

Emerson Network Power.com

SL-11288 (R03/10) Printed in USA

Rely on Emerson Network Power for answers when you need them. In addition to hundreds of local experts, a government manager near you is ready to help:

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