

# INSTALLED THERMAL UPGRADES

Equipment Upgrades & Replacements



## BENEFITS

### Improve Energy Efficiency and Cut Cooling Costs

Today's data center managers must respond to the constant state of change in the IT industry and look at strategies for optimizing a data center through management and planning. One very important area in which to focus is energy efficiency via thermal management.

Energy efficiency has become a top concern because of the demand within nearly every organization for greater computing capacity and maximum availability. With both energy consumption and costs on the rise, data center efficiency has been elevated to a strategy for reducing costs.

Additionally, efficiency is viewed as a strategy for saving capital costs and promoting environmental responsibility.

From grid to chip, the data center offers a number of possibilities for lowering energy usage, with the thermal system being where the biggest efficiency impact can be made.

### Benefits

- Realize fewer or delayed capital expenses
- Utilize up-to-date fan and control technology
- Reduce energy consumption
- Achieve greater operational savings
- Improve overall efficiency



## Maximize energy efficiency and reduce costs through affordable thermal system upgrades with turnkey installation

In a data center with a 600 kilowatt load, each percentage point in efficiency improvement translates into approximately \$6,000 in annual savings in operating expenses. And with an upgrade of fans and controls utilizing advanced thermal technology, which can be affordably financed, customers can benefit from a thermal management solution that delivers a quick payback on their investment.

Installed thermal upgrades delivered by Vertiv™ allows you to equip existing thermal units with technologies needed to maximize efficiency even when those units are not operating at peak load. These upgrades include adapting thermal infrastructure with variable speed drives (VSDs), electrically commutated (EC) fans, and/or Liebert® iCOM™ control systems.

Our installed thermal upgrades include:

- Return on investment (ROI) calculations
- Expert installation
- Control system setup and optimization
- Lease options

## ROI Calculations

Moving beyond simple calculator estimates, the application engineers of Vertiv™ will gather the specifics on your unique data center spaces in order to establish minimum returns that can be expected with the desired upgrade.

During these calculations, you are able to determine which combination of fans and controls will be most effective for achieving your energy efficiency and cost cutting goals. Additionally, these calculations are especially helpful when you are pursuing utility rebates that often require ROI information for application.

## Expert Installation

Achieving optimal efficiency through a thermal upgrade is possible with installation that is performed by the original equipment manufacturer (OEM). This service team has direct access to the engineering group who built the equipment and is specifically trained to optimize the performance of thermal systems. In addition to having industry-leading expertise, our service team uses only the highest quality OEM parts for their upgrades.

## Control System Setup and Optimization

Whether alone or in conjunction with a VSD or EC fan upgrade, Liebert® iCOM™ control systems can be installed with little or no disruption to data center operations. We know precisely how to install and set up the controls to not only increase efficiency, but also optimize data center performance.

Our thermal management experts will properly configure the set points in the controls; help you determine the most appropriate settings and how to network

them based on the space; and adjust advanced teamwork configurations to prevent simultaneous cooling/reheat operation and simultaneous humidification/dehumidification operation. As a result of more efficient operations, in most cases Liebert® iCOM™ control upgrades can pay for themselves in two years or less.

## Lease Options

Now you can turn installed thermal upgrade costs into a manageable operating expense through monthly financing options. Provided through Vertiv, these fixed-rate leasing options are an easier way to upgrade a data center for less. You benefit from having a single point of contact, simplified paperwork, and rapid turnaround.

We offer one of the industry's most lessee-friendly master lease agreements with no performance covenants and no blanket lien filings. Plus, 100 percent financing is available for all thermal upgrade project needs.

Lease options can be customized or modified based on your specific requirements, and the favorable, direct lender rates also create financial flexibility. Additional benefits of our lease options include bundled monthly payments, lease terms from 24-72 months, and no hidden costs or fees.

## Summary

As organizations like yours respond to demands for more and more IT applications, energy efficiency will remain a top priority. The best approach to maximizing efficiency in a data center thermal system is to match needs with load requirements, which can be accomplished by technologies such as VSDs and EC fans.

Combining this variable speed technology with intelligent controls brings high-level supervision to multiple thermal units resulting in even greater energy efficiency.

Financing installed thermal upgrades often results in monthly payments lower than the expected energy savings. With this approach, you are not only able to improve energy efficiency, but you can save money immediately and throughout the entire lifecycle of your data center.

## Ordering Information

To learn more about this service and other Vertiv solutions, visit [VertivCo.com](http://VertivCo.com) or call 1-800-543-2378.