



BEYOND THE PRODUCT

WHAT TO KNOW ABOUT I.T. COOLING TECHNOLOGY

You know electronic and industrial equipment produces unwanted heat, and these levels continue to rise to dangerous levels. This presents the problem of dissipating the heat generated before damage can occur to sensitive parts of critical IT, Communications, and Networking gear. In some cases, the problem can be solved by ventilation, using simple air moving devices such as fans and blowers.

However, in the world of most IT applications, the available ambient air is contaminated or too warm to be used for the safe dissipation of unwanted heat. You want to keep your equipment life expectancy high, and not adversely effect sensitive components causing equipment malfunctions, slowdowns or failures. To create the optimum environment for the application, an evaluation of the anticipated operating conditions and thermal requirements of the equipment (or system) must be completed.



Vertiv™ VRC Rack Cooling



Raised floor with perimeter precision cooling (Liebert DS or CW)

THE SCIENCE OF COOLING



Many organizations are taking a more scientific approach to cooling. The goal is to understand the science and techniques of effective data center cooling management. This includes the ability to quantify the changes necessary, to identify the appropriate best practice, and to implement the airflow management strategy in the computer room.

By approaching next-generation cooling solutions as a science, organizations can:

- **identify** isolated airflow issues negatively affecting IT reliability,
- **increase** cooling capacity to allow for installation of more IT equipment, and
- **learn** how to defer capital expenditures on computer center cooling equipment.

What questions should you ask to get the information you need?

CHALLENGES TO KEEP IN MIND

- Capacity
- Precision
- Humidity
- Reliability
- Space
- Scalability
- Visibility

MOUNTING OPTIONS

- Rack Mount** Ideal for precision cooling
- Wall Mount** Innovative solutions for tight spaces
- Ceiling Mount** Perfect for high capacity needs



THE EQUIPMENT

- Does the equipment require cooling, or is room cooling adequate?
- Are there any components that are particularly sensitive to heat or other adverse conditions?
- Does any equipment need to be isolated (by the use of a sealed enclosure) from the heat or contaminants in the ambient air?



THE TEMPERATURE

- How much heat is produced within the room or enclosure?
- What is the maximum acceptable temperature?
- What is the average and maximum temperature range of the ambient air?



THE ROOM

- What is the particulate and moisture content of the ambient air?
- Does the ambient air contain dirt, oil, corrosives, or other harmful contaminants?
- Is noise a concern for those in close proximity?

For more information, please connect with us at DVLnet.com/Contact