

# LIEBERT® DSE FREECOOLING SYSTEM, 250KW



## BENEFITS

### Save Money

- High-efficiency, with an operational PUE under 1.2
- Eliminates water usage, cost and treatment
- Low peak power to allow downsizing of backup generator capacity or more IT power for sale
- No air leakage or volumetric displacement, eliminating the need for additional fan power or make-up air capacity
- Rapidly scalable for faster deployment and time to market
- Low operating costs for higher profitability

### Lower Your Risks

- Proven pumped refrigerant economization technology used in more than 4,000 installations worldwide
- Multiple fans, DX circuits and other key components for ride-through

### Manage Easier

- Advanced controls automatically manage unit lead/lag, protect against coil freeze, maximize economization and provide other protective routines
- Auto-economization ensures the highest number of free cooling hours annually

The Liebert® DSE™ 250kW system is the world's most reliable and efficient water-free cooling system for colocation, cloud hosting and other large data centers. Offering superior reliability, the Liebert DSE 250kW uses proven pumped refrigerant economization technology from Vertiv, deployed in more than 4000 installations worldwide.

The Liebert DSE 250 is designed specifically for colocation and other large data centers:

- It supports large, high-density data center suites requiring a low-complexity infrastructure

- Airflow up to 40,000 CFM supports lower  $\Delta T$  in non-raised floor environments
- Units can be placed side by side in a fan array to support loads of more than 250 watts per square foot, with servicing at the back
- It operates as a split system, providing complete separation of data center and outdoor air and allowing highly flexible installations

### Lower Energy Usage

- Pumped refrigerant economizer uses one-tenth the power of compressors
- Advanced monitoring and control algorithms for multi-unit teamwork, automated transitions to economization and automated protection routines
- Highly efficient in low load / part load conditions

### Easier Servicing

- Rear-access servicing
- No need to enter the data center
- Refrigerant pump is virtually maintenance free
- No dampers to service or outside air filters to replace

### Improves Data Center Stability

- No outside air, contaminants or humidity allowed into the data center
- No water usage
- Advanced control algorithms automate unit lead/lag, protect against coil freeze, maximize economization and avoid adverse thresholds

### Low Peak Power

- Large condenser surface area minimizes operating and peak power, allowing for downsized generator backup or sale of additional IT power

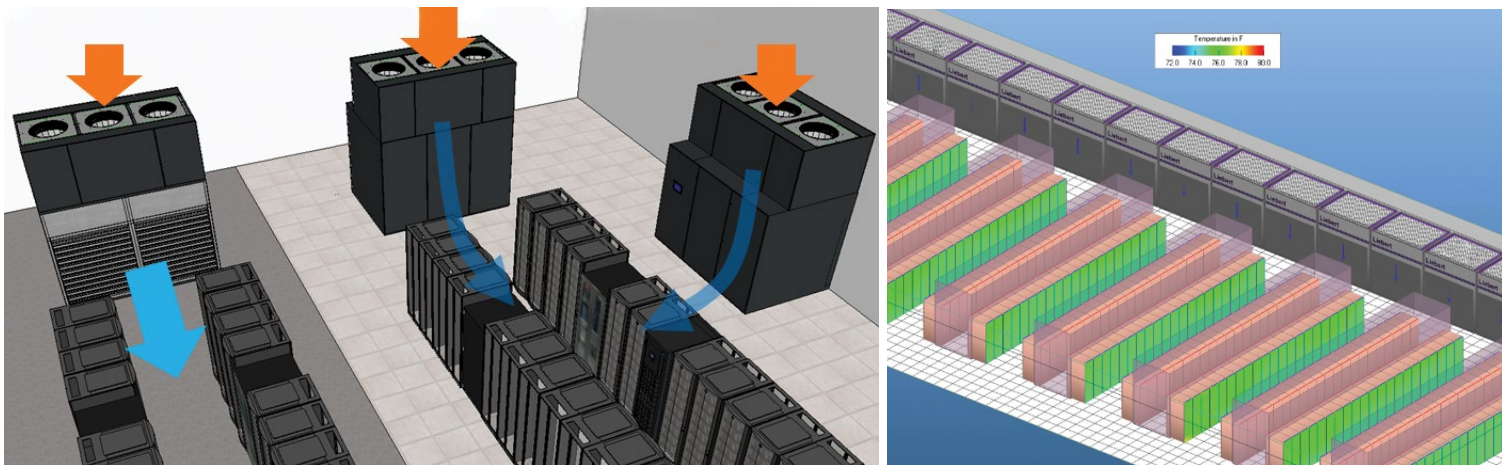


### Highly Flexible Design

- High-density design supports loads of more than 250 watts per square foot
- Units can be situated side by side to form a “fan wall”
- Underfloor or front air discharge
- Split-system design allows high application flexibility

The Liebert® DSE™ 250 is the ideal solution for large data center applications requiring application flexibility, high efficiency, no water usage and rapid scalability. It offers:

- Lower unit count compared to DX systems
- Non-raised floor configurations, such as fan array
- High density data center suites - in excess of 250 watts per square foot
- Higher airflow to manage  $\Delta T$
- More consistent data center environment, through physical separation of heat rejection air and data center air with no cross-contamination or transfer of humidity
- Minimal air leakage design with less than 1% air leakage at 1.5 times static pressure and no volumetric displacement
- Low peak power, for smaller generator sizing or more IT power to sell
- Advanced Liebert iCOM™ controls for automatic protection routines, multi-unit teamwork and greater efficiency



*The Liebert® DSE™ 250kW provides a high level of application flexibility. Its split-system design support situations where outdoor packaged systems are impractical. Multiple airflow configurations provide flexibility for raised-floor and slab-floor environments. A fan array configuration saves white space and provides access to the unit from outside the white space.*