LIEBERT® DSE™ OUTDOOR PACKAGED FREE-COOLING SOLUTION, 60KW



BENEFITS

Save Money

- High-efficiency, with an operational PUE under 1.2
- DSE Optimization control improves efficiency by up to 50 percent
- Low peak power to allow downsizing of backup generator capacity or more IT power for sale
- Eliminates water usage, cost and treatment
- Lower air leakage and no 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 Risks

- Proven pumped refrigerant economization technology used in more than 6000 installations worldwide
- Designed for -30F to 100F ambient
- 65,000 Amp SCCR

Manage More Easily

- Advanced Liebert® iCOM™
 controls that automatically
 manage unit lead/lag, protect
 against coil freeze, maximize
 economization and
 other routines
- Easy integration to BMS using onboard protocols

The Liebert DSE™ 60kW solution is the world's most reliable and efficient water-free cooling system for small data centers, telecom offices and other smaller IT spaces. Offering superior reliability, the Liebert DSE uses proven pumped refrigerant economization technology from Vertiv, deployed in more than 6000 installations worldwide. It integrates the evaporator, condenser, compressor, refrigerant economizer pump and thermal controls in a single, easy to deploy outdoor packaged solution. The highly scalable system is available in outdoor perimeter configurations.

Optimal Annual Energy Usage

- DSE Optimization control improves efficiency by up to 50 percent
- Advanced Liebert iCOM control algorithms for multi-unit teamwork, automated transitions to economization and automated protection routines
- Highly efficient in low load / part load conditions

Easy to Service

- Evaporator components can be serviced via side entry
- Econophase and condenser components can be serviced from the rear of the unit
- No heat wheel, seals, motors to clean and maintain
- Liebert economization pump is virtually maintenance free
- No outside air dampers to service or outside air filters to replace

Dependable Inside & Out

 Reliable, standard components & controls to keep your critical site running all year

Easy to Manage

- Easy integration to BMS using onboard protocols
- Automatic, smooth economization transitions via Liebert iCOM DX Autotuning control



Lower Air Leakage

- No volumetric displacement of outside air, in contrast to heat wheel solutions
- Thermal break construction for less condensation

Easy Fit Up to Building

Side-by-side installation minimizes space required

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The Liebert® DSE $^{\text{TM}}$ 60kW is the ideal solution for small to mid-size data center applications requiring high efficiency, no water usage, low maintenance and rapid scalability.

It offers:

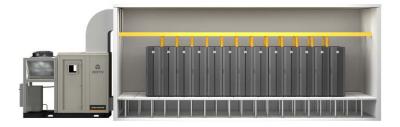
- More stable data center environment, with no cross-contamination or transfer of humidity, through physical separation of heat rejection and data center air
- Advanced Liebert iCOM™ controls for automatic protection routines, multi-unit teamwork and greater efficiency

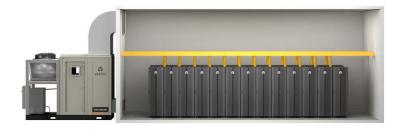
Save More Money

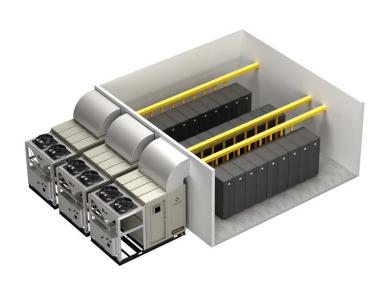


Liebert DSE controls include an Optimization feature that improves upon the already industry-leading efficiency of the system.

- 50% more efficient via new optimized controls
- Standard on all new Liebert DSE units
- Available as retrofit to existing Liebert DSE units
- 18 month average payback period on retrofits







The Liebert DSE free-cooling solution is scalable in 60kW unit capacities, with perimeter configuration to support growing and changing data center loads and site requirements.

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