

Ecochillers® COPELAND



The New **Lev-Air® Oil-Free Centrifugal Aero-Lift™ Bearing Chiller** for Mission Critical, Data Center Cooling.

Ecogreen®

The images and calculations shown are for illustrative purposes only.
For more information, please consult Ecochillers.

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Beyond High Efficiency

The New **Lev-Air® Oil-Free Centrifugal Aero-Lift™ Bearing Chiller** for Mission Critical, Data Center Cooling.

While others settle for the standard, we go beyond in data center solutions...

The Ecogreen Lev-Air® Aero-Lift™ Bearing Centrifugal Chiller Data Center Cooling Is Mission - Critical and specifically designed for reliable, decoupled VFD and Electronic Board from compressor.

ECCLACF

Brought to you by **COPELAND**, the inventors Innovators Aero-Lift™ Bearing Technology Compressors, the Reliable design of the **ECCLACF** delivers peak efficiency than Screw Chillers — and beyond — typical industry standards looking to match free-cooling chillers operating in economizer mode, making it one of the most reliable and efficient options for data center applications.

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Designed for increased temperatures inside space, the ECCALCF is the ideal solution for today's high lift.

Oil-Free Centrifugal Chiller with Aero-Lift™ Bearing Technology

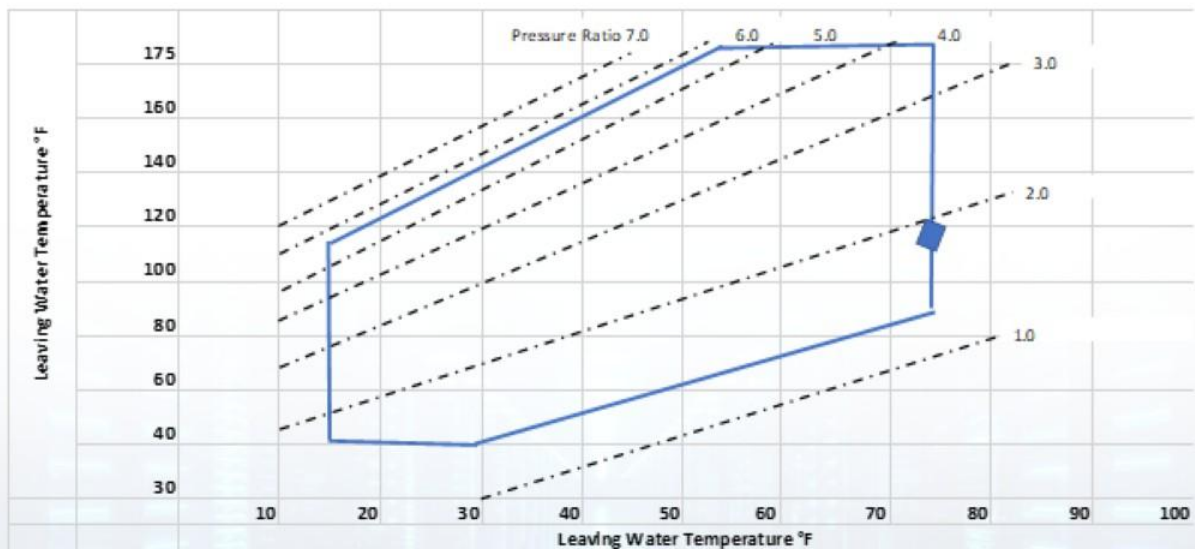
- **Levitated Refrigerant Flow** – Enhanced efficiency by decoupling the compressor from controls and drive. Magnetic-Free Drive. magnetic levitation (i.e., maglev) bearings.
- **High-Lift Capability** – Operates at 160°F+ SDT, supporting high ambient applications and High Water temperature Applications.
- **Optimized for Performance** – High-speed operation ensures superior performance in demanding environments.
- **Simplified Maintenance & Serviceability** –
 - Superior field serviceability with de-integrated power electronics.
 - Reduced complexity by eliminating magnetic bearing sensing.
 - No redundant backup bearings are required, improving efficiency.
 - **Independent servicing of compression & drive—no specialized Factory Staff needed for field replacement.**



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- **Manufacturing & Application Benefits –**
 - Modular electronic sub-assembly enhances production flexibility.
 - Drive can be tailored to application requirements, allowing higher evaporator compatibility.
 - No additional enclosure required for line reactor.
- **Optimized Refrigerant Management –**
 - Runs at pressure ratios below 1.5.
- **Breaking the Standard!**
 - 98°F SCT/ 85°F LWT/1.33 Ratio, 19 KW/Ton R513A.

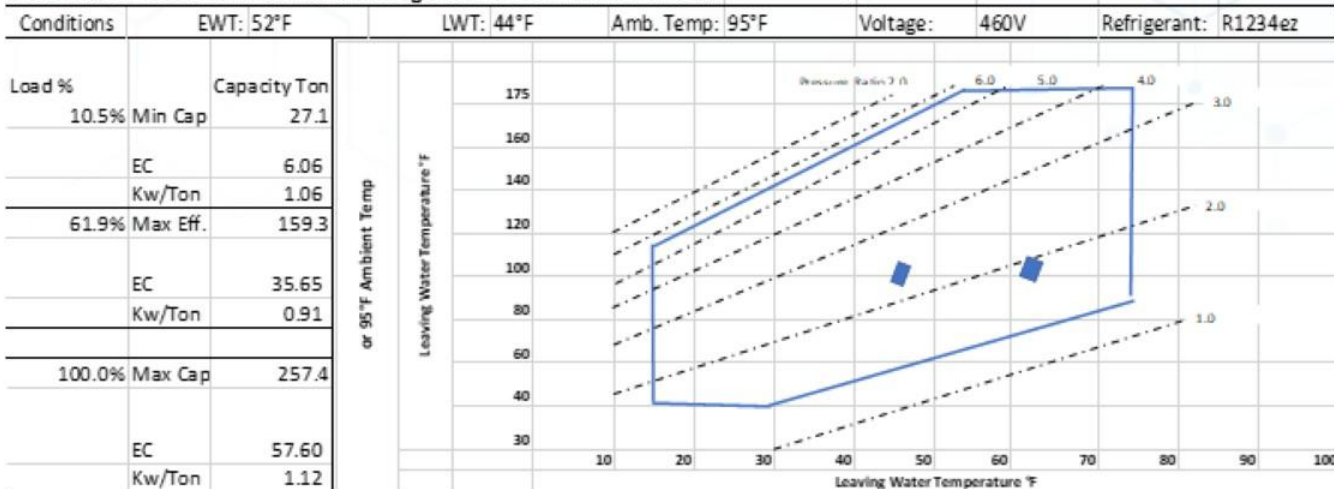


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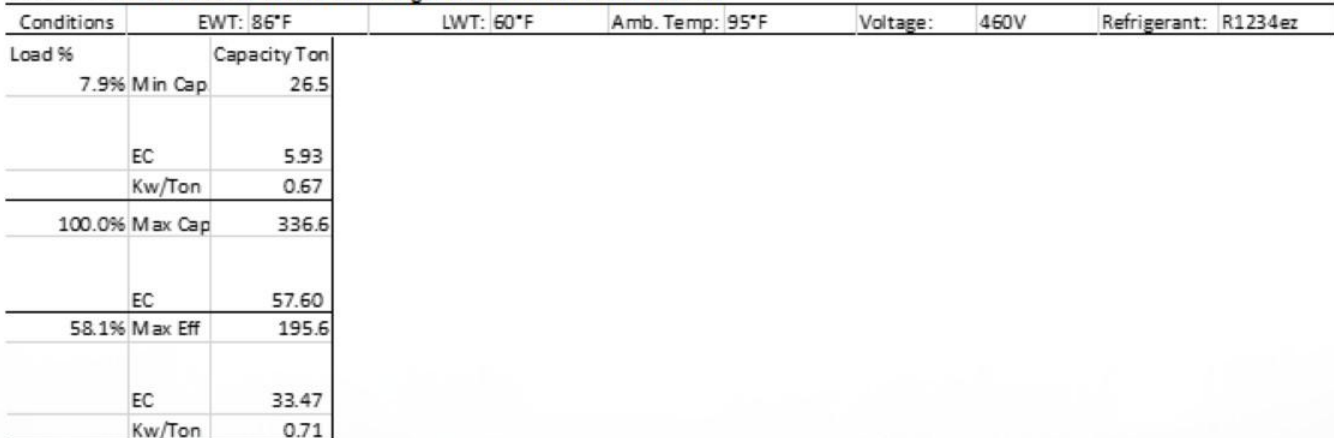


ECCLACF300A46ST13VE Air Cooled Centrifugal OilFree Air-Lift Chiller R1234ez

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ECCLACF300A46ST13VE Air Cooled Centrifugal OilFree Air-Lift Chiller R1234ez



ECCLACF300A46ST13VE Air Cooled Centrifugal OilFree Air-Lift Chiller



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Ecochillers Keep Simple Philosophy... Reduced Service and Operation Costs

Majority of Data Centers are located in Small Cities, due Cost of Land, State and County Support and Incentives far away for Service Branch Offices.

All the Core Components can be replaced in field including the compressors, with non skill Electronic engineers, without to working on VFDs or electronic devices.

Even More all panel control is fully integrated for easily replaceable independent Controllers, instead of just one mix of electronic Boards

Off-design performance, which translates to greater ROI and savings opportunities. The Electric bill, energy costs over the life of the chiller in most data centers can be several times the initial chiller cost.

However, with the **Ecochillers Lev-Air** advanced design, maintenance costs are drastically reduced, leading to significant labor savings over time. Additionally, when considering the high cost of skilled labor for servicing HVAC centrifugal chillers, it is crucial to evaluate how many certified technicians each manufacturer has in your area and compare the cost of their service contracts against the savings of using local technicians or your own in-house personnel.

Ecochillers trains and certifies the end-user's service personnel, ensuring that users do not rely on costly OEM service contracts while also minimizing maintenance expenses and avoiding costly downtime caused by the availability and travel time of OEM service engineers.

This strategic approach to maintenance enables facilities to operate efficiently without the burden of excessive service costs—with the exception of variable speed drives (VSDs), which may require specialized support.



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Sustainable Operation

The Oil-free design Eliminating:
Oil Management mechanical system
Service collect oils samples
Replace oil filters
Improving heat transfer performance and
long term lost efficiency compared with
Screw Chillers.

On several conditions, the Lev-Air Chiller achieves exceptional efficiency, delivering a performance or operation cost similar/ equal like chillers equipped with water-side economizers. free-cooling and Adiabatic coils, glycol usage, added weight, system complexity, water treatment, scale, Chemicals and the extra costs typically used on free-cooling and Adiabatic chillers.

One of the lowest Sound Levels



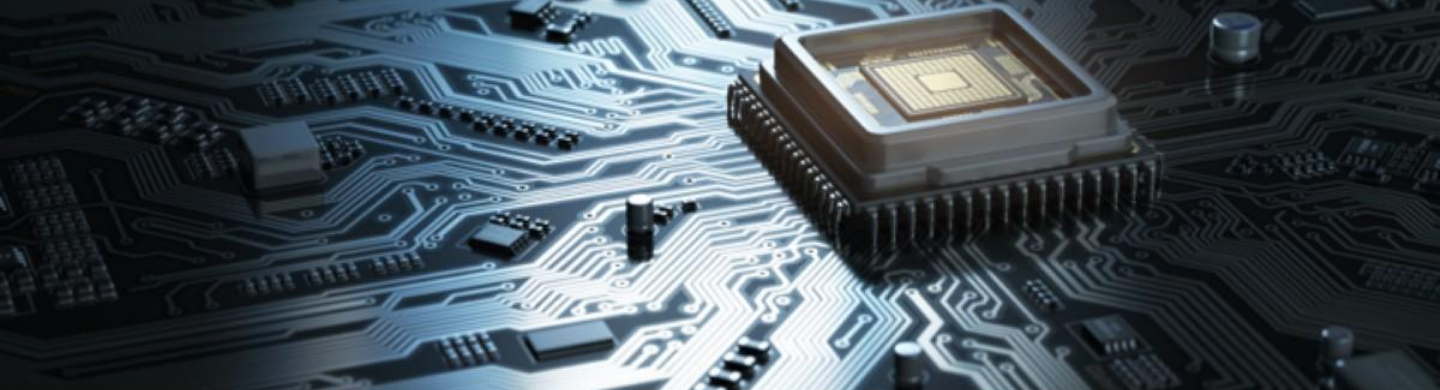
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Benefits and Features

- Magnetic free drive
- Oil-free/lubrication-free maintenance
- Low harmonics
- 30 Second faster restarts
- EC Fans by Zhiel Abegg Lower sound power levels.
- Refrigerant Flow Levitated
- Decouple the compressor from the controls and drive
- 160F+ SDT Capable, High Lift
- High speed capable to support high ambient application
- Superior field service capability with de-integrated power electronics
- Less complexity with elimination of magnetic bearing sensing
- Improved efficiency with elimination of redundant back-up bearings
- High speed capable to support high ambient application
- Superior field service capability with de-integrated power electronics
- Compression & drive independently serviceable, Traine and Qualified Service technician required for field replacement.
- MFG benefit to sub assemble electronics
- Drive can be matched to application requirement, higher evaps not limited by drive capability
- Additional enclosure for line reactor not required
- Runs pressure ratios up to 1.33





The Power of Partnership

Ecogreen Centrifugal Oil Free Aero-lift™ Bearing Chillers, **ECCALCF**, it's the sum of Partnership and assessment with most reputable and Reliable Components Manufacturers in the HVAC Industry, Copeland is a leading supplier of Positive displacement Compressors and Now centrifugal and variable-speed driven air-cooled Centrifugal.

COPELAND compressors
Wieland ONDA HX
Ziehl Abegg Fans
Carel Controls
ABB Electric Components

All this components have already been proven endurance, reliable, serviceable. In the worst conditions Including Industrial Applications and Mission - Critical applications.

COPELAND



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ABB

ZIEHL-ABEGG 