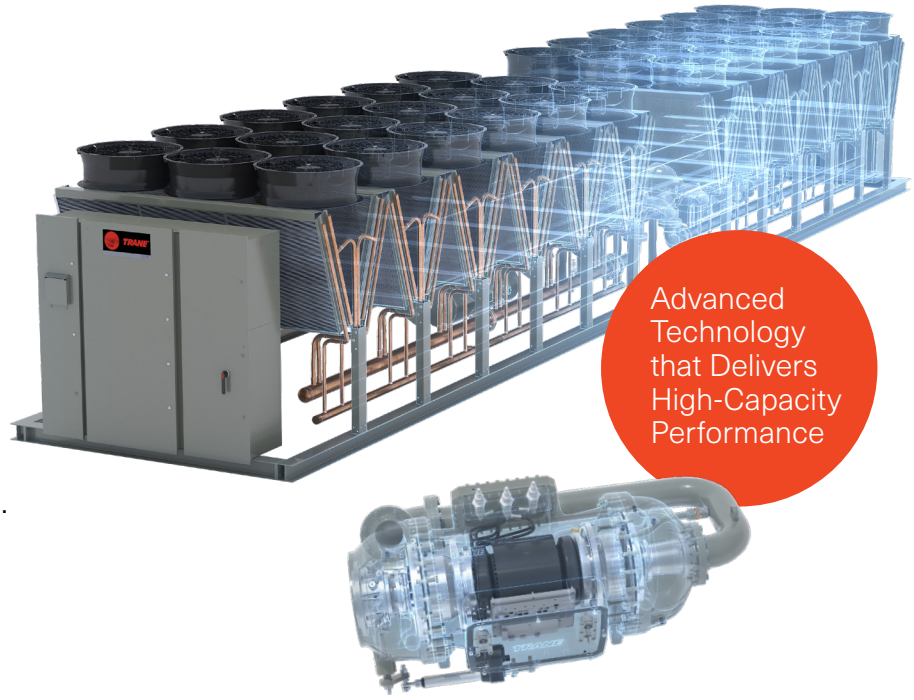
Trane® Air-Cooled Magnetic Bearing Chiller

From 1MW to 3MW Cooling Capacity for Data Center Thermal Management

Models TCA

Trane Air-Cooled Magnetic Bearing Chillers—engineered to meet the escalating cooling demands of modern data centers. As next-generation microprocessors drive increased rack density, efficient and high-capacity cooling solutions become essential.

The Trane TCA chiller delivers over 850 tons (3MW) of air-cooled cooling capacity using proven compressor technology, all within a single unit frame. It is designed to maximize cooling capacity per square foot, reduce installation costs, and minimize sound transmission. Leading the market in both full and part load energy efficiency, the TCA chiller is the optimal solution for today's data centers.



Maximize Your Space Efficiency

The TCA chiller offers exceptional cooling per square foot of unit footprint, often reducing the number of chillers needed onsite. This high-capacity unit rejects more heat per square foot, ensuring your data center operates efficiently and effectively.

Reduce Costs and Enhance Profitability

By replacing multiple chillers with a single, larger-capacity unit, the TCA chiller reduces overall installation costs and energy consumption. This leads to lower power demand and improved profitability, making it a cost-effective solution for your data center.

Minimize Sound, Maximize Uptime

Designed with low sound variable speed compressors and EC fans, the TCA chiller ensures quiet operation, ideal for sound-sensitive locations. The Rapid Restart™ feature guarantees that your system is back online swiftly after a power cycle event, ensuring minimal downtime and maximum reliability.

Specifications

Capacity Range: 200-850T

Refrigerant: Next-gen, low-GWP R-515B or R-1234ze

Compressor Design: Mag-bearing Centrifugal

Controls: Advanced Intelligent Controls for Data Centers

Factory-Installed Optional Features:
Harmonic Filter, Compressor Assisted Economizer, Factory Pumping Packages

Cooling Only:
60°F - 85°F leaving water temperature, -20°F to 130°F ambient

Built to Provide Years of Reliable Operation

Relentless Reliability

We understand that downtime is not an option. That's why Trane supports your operations with a full suite of expert services designed to deliver maximum reliability in your thermal management system.

Our nationwide network of data-center-qualified technicians is ready to respond within minutes, ensuring fast, local support when it's needed most. With remote system monitoring and predictive alerts, we help you stay ahead of potential issues—while features like Rapid Restart™ enable quick recovery after power interruptions.

With Trane, you get more than equipment— you get confidence, continuity and a team committed to keeping you online.

Trane Air-Cooled Magnetic Bearing Chiller TCAA 200-400T

Trane Air-Cooled Magnetic Bearing Chiller TCAB 400-600T

Trane Air-Cooled Magnetic Bearing Chiller TCAB 650-850T

General Data*

	Capacity Range**	Length x Width x Height (in)	Operating Weight (lbs)	Number of Fans	Refrigeration Circuit Quantity	Compressor Quantity
TCAA220	200-300T	325 x 88 x 106	18,500	12	2	2
TCAA330	300-400T	478 x 88 x 106	32,000	18	3	3
TCAB570	400-600T	624 x 88 x 106	40,000	24	2	4
TCAB850	650-850T	672 x 120 x106	50,000	36	2	2

*All values are estimated. Contact Trane for project-specific details.
**Based on commonly used data center application ranges.

Mission Critical

At Trane we are constantly improving. Our data-center cooling solutions were—and continue to be—developed in close collaboration with customers, allowing us to redefine cooling efficiency, capacity, and sustainability.

Learn more at trane.com.

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