





Data Center Solutions

Improving How Data Centers are Developed, Designed and Operated



Why Trane®

Data center needs are complex. Managing complexity is what we do best. As a thermal management trusted innovator, we offer a portfolio of scalable systems including air- and water-cooled chillers, chiller plant controls, fan coil walls, and liquid cooling solutions all supported by a world-class local-to-you service network. Whether you are developing, designing, or operating in mission critical environments, our goal is to help you create and maintain a more sustainable data center infrastructure that can keep up with evolving demands.

Trane Capabilities

Engineered Systems



Our innovative products, expert services, witness testing, modeling, and ongoing optimization ensure our thermal management systems meet current and future needs.

Chiller Plant Controls



Trane Chiller Plant Controls use optimization strategies that leverage operational data to make targeted adjustments to bring your data center system back to its optimal state which helps manage costs. The result is a more sustainable, optimized, and integrated system that minimizes energy consumption and maximizes uptime.

Start-Up, Commissioning and Proactive Maintenance Services



Trane is committed to the uninterrupted operation of your mission critical equipment and systems, helping to enable peak performance and resource optimization. We can help reduce operating costs and extend the life of your equipment with planned, reliable, preventative and proactive scheduled maintenance and repair by Trane's extensive network of over 1,600 highly skilled and trained technicians in Asia Pacific, available 24/365.

- Service Agreements
- Extended Warranty

Optimization Services



From enabling remote equipment inspections to digital troubleshooting to optimizing your facility, Trane's digitally enabled offerings help you maintain data center equipment and manage your operations more affordably.

Leverage your data and Trane's analytics to create simple dashboards that can help you to understand performance of your building and its assets.

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Trane Equipment

Water-Cooled Chillers



Water-Cooled Centrifugal Chiller Models CVHH and CDHH

CenTraVac chillers deliver high performance, energy-efficient thermal management for application challenges. Advanced features help reduce operational costs and environmental impact. Multi-stage compressor; Heating and Cooling capable; Symbio® 800 controller; Capacity range 3,165-14,067 kW; R-1233zd.



Water-Cooled Magnetic Bearing Chiller Model HSWE

HSWE water-cooled chiller with magnetic bearing oil-free compressor technology has industry leading efficiency, helping to minimize data center PUE. The advanced rapid restart and protections from Trane smart controller with Adaptive Controls™ guarantee reliable operations of data center.

Capacity range 1,758 − 5,274 kW; R-134a/R513A/R1234ze.

Air-Cooled Chillers



Air-Cooled Screw Chiller Model RTAG Series

RTAG air-cooled chiller with Trane designed and manufactured screw compressors offers unmatched versatility for data center chilled water production. RTAG operates between -20°C to +55°C operating ambient at industry-leading high efficiency levels, and offers all the features required for data center applications (rapid restart, free-cooling, heat-recovery). Capacities up to 2,200 kW with R134a/R513A/R1234ze.



Air-Cooled Magnetic Bearing Chiller Model HSAG Series

HSAG air-cooled chiller with magnetic bearing oil-free compressor technology and integrated high-capacity free cooling has industry leading partial load efficiency, helping to minimize data center PUE. Built-in features like ATS, UPS for controls and rapid restart enable maximum reliability and uptime. Capacities up to 2,200 kW with R1234ze.

Air Handling Solutions



Fan Wall Unit Model DFWA

Fan Wall unit DFWA can serve a big data center server room, providing up to 700 kW of cooling capacity and an airflow of 160,000 m³/h with customized control and convenient maintenance service access. It is designed to maintain precise temperature and humidity control and help reduce the PUE of total system.

Liquid Cooling Systems



Coolant Distribution Unit Model DCDA

Covers wide cooling capacity range from 400 to 1350 kW at standard conditions. Flexible options with integrated ATS UPS. Full SUS piping to ensure safe operation and service life. Features dual side access panels as standard configuration, or single side access panel as option for easy servicing. Compact structure saves space for additional IT servers.

Case Study: Prominent global data center operator in India



Objective:

 ${\bf Address\ challenges\,-\,power\ consumption,\ rapid\ restart,\ footprint\,-\,in\ Mumbai\ and\ Chennai\ sites.}$

Solutions

- 24 units of RTAG XSE Air-Cooled Screw Chillers.
- Low inrush current, low energy consumption, high part load efficiency and small footprint.
- Customized solutions for Thermal storage tanks, Distributed Generation & Transformer sizing, and space planning.

Results:

- Operating on best possible PUE of 1.4, with significant annual energy savings.
- · Maximum capacity with lowest footprints on terrace layout.
- Reduced thermal storage sizes, owing to Trane Rapid restart.
- Reduced CAPEX on Distributed Generation & Transformer sizing.

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Trane – by Trane Technologies (NYSE: TT), a global climate innovator – creates comfortable, energy efficient indoor environments through a broad portfolio of heating, ventilating and air conditioning systems and controls, services, parts and supply. For more information, please visit *trane.eu* or *tranetechnologies.com*.