

# Pioneering a New Standard: Delivering India's First Free- Cooling Solution for a Hyperscale Data Center



## Challenge

The project was originally specified around a competitor's offerings, creating a high barrier to entry. The customer required a solution that included elevated chilled-water temperatures, advanced corrosion-resistant features, and custom configurations—such as an inbuilt pump and free-cooling capability—that were not part of Trane India's standard product offerings at the time.

## Solution

Trane worked closely with the customer's subject matter experts, consultants, and contractors to demonstrate the high efficiency and environmental benefits of its solutions. Performance and sound tests for the factory-fitted cowls were provided in advance, giving the customer full data-backed assurance of chiller reliability. This collaborative, evidence-driven approach ultimately convinced the customer to adopt Trane's innovative, custom-engineered solution.

- RTAG HFO-R1234ze air-cooled screw chillers with elevated temperature capability
- Integrated inbuilt pump and hydronic package
- First-of-its-kind air-cooled chiller with free-cooling capabilities in India

## Result

The project sets a new benchmark for sustainable cooling in India's data center industry, helping the customer significantly reduce their environmental footprint while supporting India's national HFC phase-down strategy.

- Achieved significant annual energy savings of up to 18%
- Reduced carbon emission by approximately 33000 tons of CO<sub>2</sub>e

## Project Highlights

- Market:** India
- Segment:** Data Center
- Products & Services used:**
  - RTAG PSE Air-Cooled Screw Chillers

## Featured Solutions



**Product name:** Air-cooled Screw Chiller Model RTAG PSE

### At a glance:

- Capacity range: 200-600 RT
- Refrigerant: R1234ze
- Screw compressor
- Rapid Restart: Fast and stable control on desired chilled water temperature after a power outage to support reliable data center operations
- Operating Range: Wide range able to meet various data center conditions
- Trane smart controller with Adaptive Controls™
- Inbuilt UPS / Pump / AHF / AFD
- Direct Free Cooling



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