



# TRANE IS INNOVATING FOR YOU

▶▶ New Trane Excellent  
Chillers



Teaser Video

General Overview

GVAF

GVWF





XSTREAM™ EXCELLENT  
Water-Cooled Chiller

G  
V  
W  
F

MARKET-LEADING EFFICIENCIES  
OUTSTANDING PERFORMANCE  
SUPERIOR RELIABILITY  
SUSTAINABILITY



ALL-AROUND



SINTESIS™ EXCELLENT  
Air-Cooled Chiller

G  
V  
A  
F



EXCELLENCE



GVAF

Sintesic™ Excellent  
Air-Cooled Chiller





## GVAF Overview

- Leading-Edge Technologies
- Market Leading Efficiencies
- Exceptional Capacity per Length Ratio
- Suitable for Toughest Climates
- Special Design for Data Centers



Sintesis™ Excellent  
Air-Cooled Chiller

The New Leader of Air-Cooled Chillers



## The new GVAF XSE / XSS series

- XSE - the highest seasonal efficiencies
- XSS - the shortest footprint per capacity
- Fully HFO optimized **R1234ze**
  - Near zero GWP & zero ODP refrigerant
- **380kW to 1.5MW\*** cooling capacity
- Ideal fit to **comfort cooling** or **process cooling** applications
- Special design dedicated for **data centers**

\*at 35°C ambient, 7/12°C water



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Air-Cooled Chiller

The Future of Chiller Efficiency is Maglev

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TECHNOLOGIES



# Leading-Edge Technologies

Symbio 800™  
Controller with  
ID7 Touchscreen



1 or 2 R1234ze  
refrigerant circuits

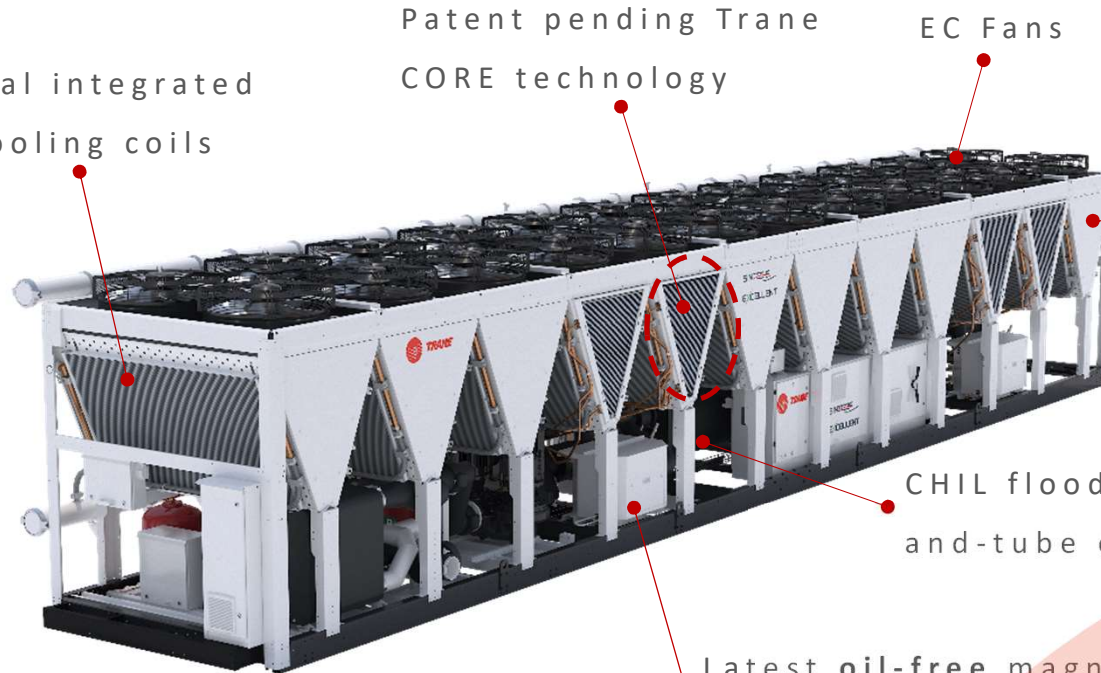


Optional integrated  
free-cooling coils

Patent pending Trane  
CORE technology

EC Fans

Microchannel  
Condenser Coils



CHIL flooded shell-  
and-tube evaporator

Latest **oil-free** magnetic  
bearing centrifugal compressors

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Air-Cooled Chiller

## Greater Than the Sum of its Parts





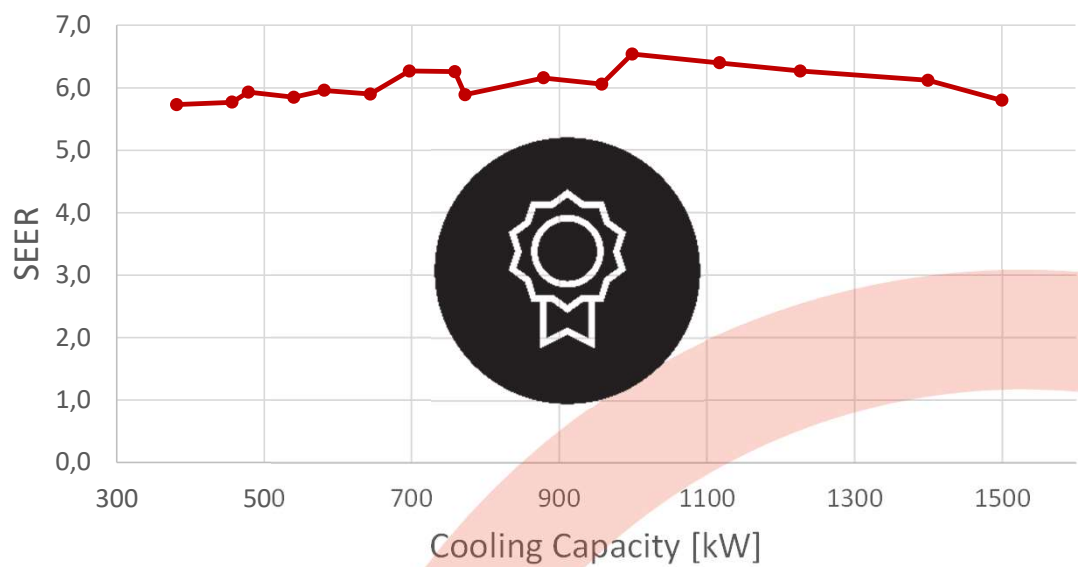


## Market Leading Efficiencies

- Top-Rated Eurovent Certified Seasonal SEER Efficiencies
- Very Good Full Load EER and Process Cooling SEPR-HT Efficiencies
- High Efficiency and Capacity Integrated Free Cooling Option



SEER > 6.5



Sintesis™ Excellent  
Air-Cooled Chiller

The Lowest Total Cost of Ownership





## Smallest footprint per cooling capacity



- **GVAF XSS** is the **space saving** chiller model fitting into the tightest rooftops
- Reduced condenser surface area:
  - **Significant footprint reduction** but only a minor reduction in cooling capacity and efficiency



\* XSS size 140 compared to XPG size 140

Sintesis™ Excellent  
Air-Cooled Chiller

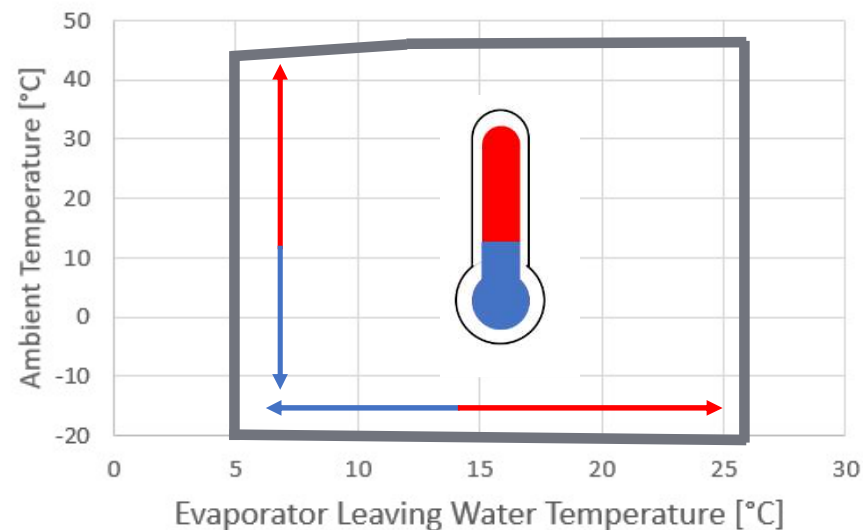
# Great Performance at Extreme Short Footprint

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TECHNOLOGIES



## Suitable for Toughest Climates

- The **best maglev operating maps** on the market
  - Full load cooling capacity **up to +46°C ambient** temperature
  - Leaving **water temperatures up to +26 °C**
- **Strong operating map** enables
  - Enhanced **application flexibility**
  - **Improved reliability**





G V A F

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Air-Cooled Chiller

Special Design For Data Centers



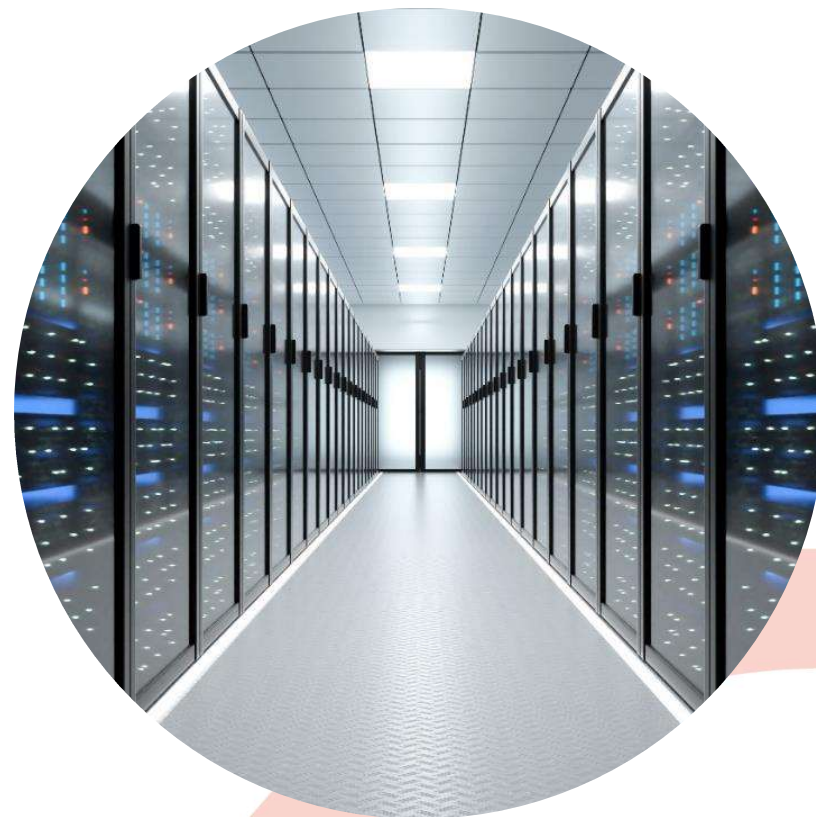
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TECHNOLOGIES



## GVAF Data Center Special Design



- Meets the most demanding data center **performance, reliability and application** requirements
- Preferred by many large **global Data Center customers**
- Entire GVAF XSE / XSS series available as data center special design, **cooling capacity up to 2150 kW\***



\*at 35°C ambient, 20/30°C water

Sintesis™ Excellent  
Air-Cooled Chiller

Designed for Mission Critical Applications

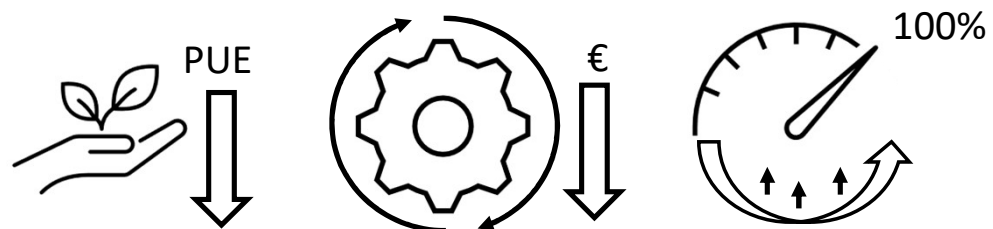
TRANE  
TECHNOLOGIES



## Best performance and most reliable operation



- Top-rated certified seasonal efficiency chillers with **integrated high-capacity free cooling**:
  - **Minimized PUE** (Power Usage Effectiveness)
  - **Lowest operating cost**
- Uncompromised chiller **reliability** for **maximized data center uptime**



Sintesis™ Excellent  
Air-Cooled Chiller

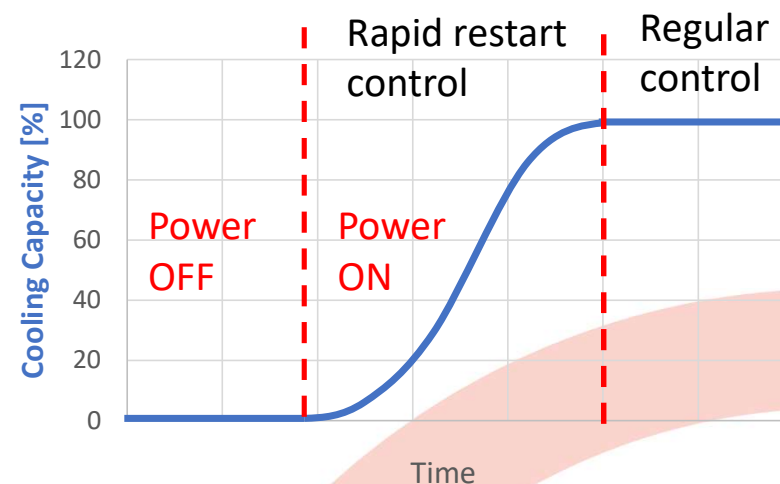
## Lowest PUE & Maximum Uptime



## Market Leading Rapid Restart Time



- Symbio 800™ - fastest and most reliable chiller controller on the market
- Rapid restart package includes:
  - **Intelligent control algorithms** – rapid restart control, power cap, previous operating mode
  - **Automatic Transfer Switch (ATS)** for dual power connection
  - **UPS for controls** to power Symbio 800™





GVWF

XStream™ Excellent  
Water-Cooled Chiller







## Overview of new GVWF XSE G



- HFO fully optimized
  - R1234ze 0 ODP / Near Zero GWP (<1)
  - R515B A1 classification
- Design:
  - All comfort & industrial process applications
  - Special design for Data Centers
- Efficiency:
  - Best Ranked (Eurovent) certified Performance
  - Best Certified Seasonal Efficiency up to 10.4 SEER
- Extended Operating map
- Legendary Trane Superior Reliability



GVWF XSE G

XStream™ Excellent  
Water-Cooled Chiller

# A Water-Cooled Innovation Masterpiece



Only the best...



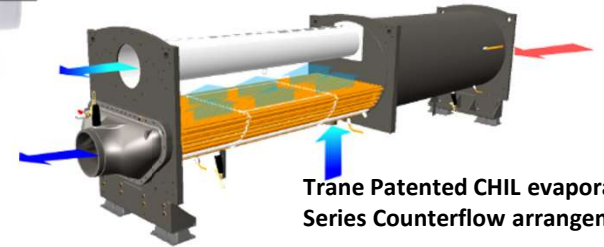
High Speed  
Magnetic Bearing  
Centrifugal Compressor



Serial Economizer



Trane Symbio™ 800 Controller  
+ TD7 Color Touchscreen

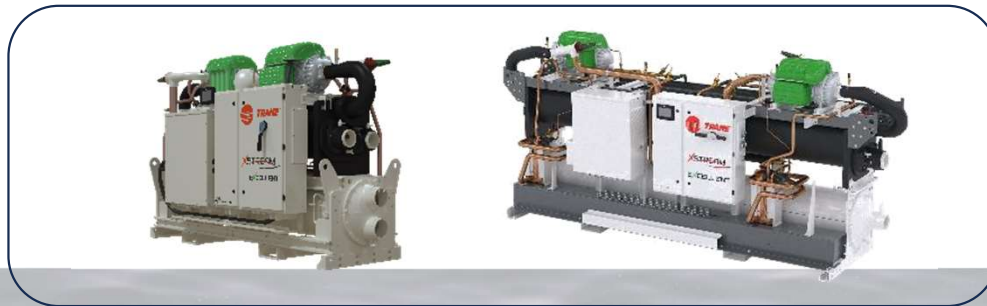


Trane Patented CHIL evaporator  
Series Counterflow arrangement

Single compressor design

2 compressor design

3 and 4 compressor design



XStream™ Excellent  
Water-Cooled Chiller

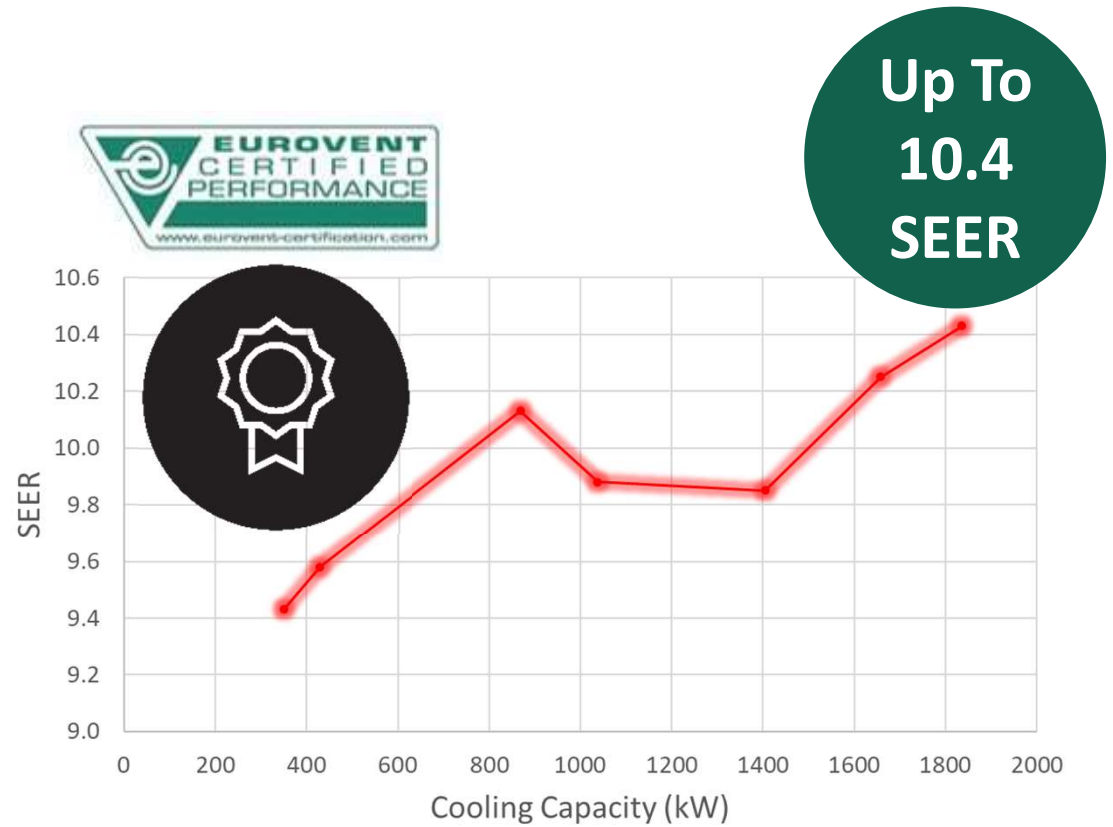
Designed for a unique, performing experience





# Efficiency

- **Best Ranked** (Eurovent) certified Performance
- **Best Certified** Seasonal Efficiency up to SEER 10.4





# Built for the most extreme operating conditions

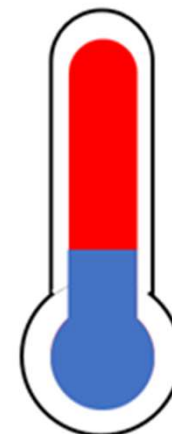


## Wide operating map

- High pressure ratio
- High Evaporator Temperature Water Achievable
- Trane Symbio™ Controller capabilities
- Trane heat exchanger technology with excellent efficiency and minimal pressure losses



High Efficient  
Copper Tube



**Up to 63°C  
On heat  
rejection side**

**Up to 30°C  
chilled water**



# Adaptive Control™ Symbio 800™



- State-of-the-art controller to guarantee superior reliability and lowest cost of ownership.
- Adaptive controls to endure smooth operation and optimal performance.
- Advanced algorithms for smarter and more reliable operations.



XStream™ Excellent  
Water-Cooled Chiller

Robust performance at extreme conditions

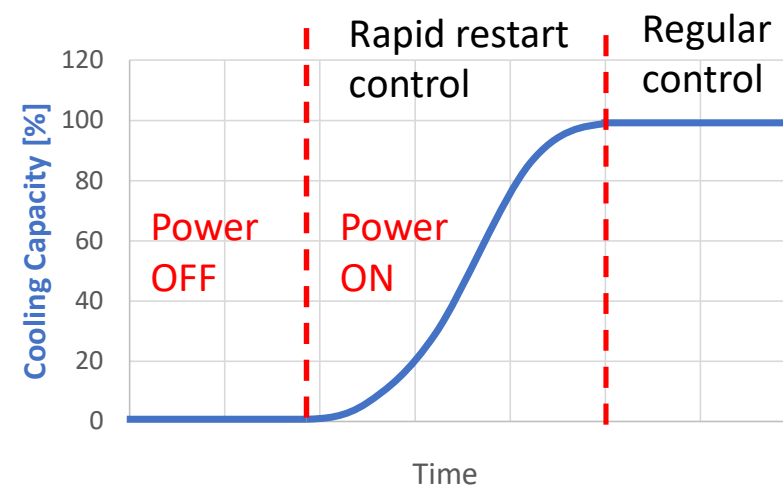




# GVWF Data Center Special Design



- Meets the most demanding data center **performance, reliability and application** requirements
- Available on all sizes, cooling capacity up to 2700 kW
- Best overall efficiency to minimize the data center Power Usage Effectiveness (PUE)
- **Robust operating map** for drycooler operation
- Rapid restart package includes:
  - Intelligent control algorithms – rapid restart control, power cap, previous operating mode
  - UPS for controls to power Symbio 800TM





# THANK YOU

▶▶ Check our teaser video:  
<https://youtu.be/R-lZyaM2IVU>