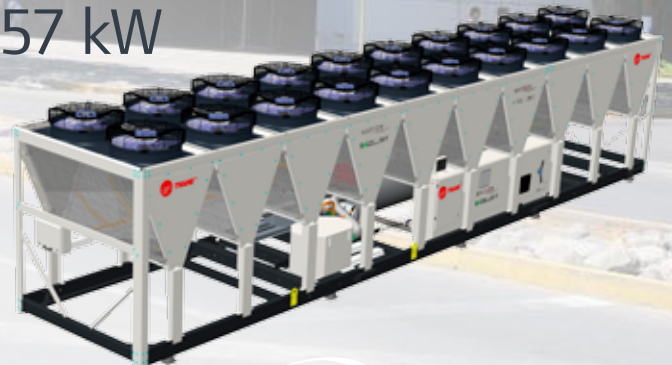




# Air-cooled Chillers with High Speed Centrifugal Compressors

**SINTECIS™**  
**EXCELLENT**

Model GVAF-X 575 - 1613 kW  
Model GVAF-XP 720 - 1220 kW  
Model GVAF-XPG 500 - 1257 kW



# Trane Sintes<sup>TM</sup> eXcellent

## Air-cooled Chillers with High Speed Centrifugal Compressors

Sintesis eXcellent is a new model within Trane's Sintesis range able to reach market-leading Energy Efficiency Ratio (EER) and European Seasonal Energy Efficiency Ratio (ESEER) with lower sound levels.

As a part of the Ingersoll Rand EcoWise<sup>TM</sup> portfolio of products, this model GVAF is available with a choice of refrigerants: R134a or the new HFO R1234ze which has a GWP value of less than one to exceed current F-Gas legislation requirements and help customers reduce their carbon dioxide (CO<sub>2</sub>) emissions and achieve extreme part load and full load efficiencies.

### Sintesis eXcellent chillers are suited for critical environments like

- Data centers
- Hospitals
- Large office buildings
- Industrial process applications



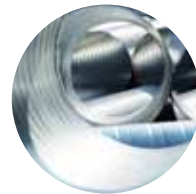
Data centers



Hospitals



Office buildings



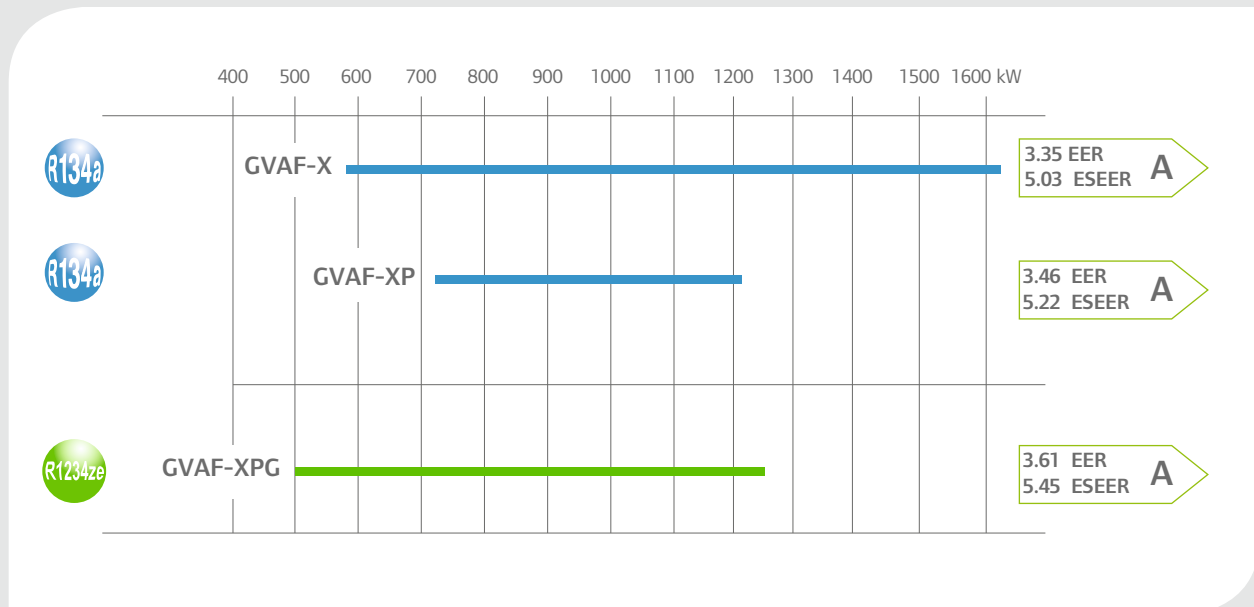
Industrial process applications



# Range description

A model for every need

Trane's Sinesis eXcellent provides a wide capacity range up to 1.6MW with industry-leading part load and full load efficiencies.



## Energy Efficient

Choose from three different efficiency tiers to respond every building or process requirement.

## Green

Two different refrigerant alternatives:

R134a and the new HFO R1234ze with GWP<1

## Reliable

No compromise: You can count on Trane's legendary reliability.



# Sintesis eXcellent chillers

Excellence is standard

## Standard on all models

- EC fan motors to reach higher part load efficiencies with lower sound levels
- Double refrigerant circuit
- Economizer circuit
- EMC filter to avoid harmonic transfer to compressor



### Smart

Easy operation thanks to smart controls and a user-friendly touchscreen interface



### Quiet

GVAF is offered with three different acoustic packages:

- Low noise
- Extra low noise
- Night noise set back



### Free Cooling

Take advantage of low ambient conditions to help cool water in your HVAC system.

Sintesis eXcellent is designed to enable significant savings from free-cooling.

Choose from four free-cooling alternatives.

- Total Direct Free-cooling
- Partial Direct Free-cooling
- Total Glycol-Free Free-cooling
- Partial Glycol-Free Free-cooling



# An environmentally sustainable solution

## EcoWise™

Sintesis™ chillers are part of the Ingersoll Rand EcoWise™ portfolio of products that are designed to lower their environmental impact with next-generation, low global warming potential (GWP) refrigerants and high-efficiency operation.

Choose from two refrigerant options



**R134a**

Ozone depletion potential = 0



**New HFO R1234ze**

Ozone depletion potential = 0

Low global warming potential (GWP<1)

Refrigerant	Global Warming Potential (GWP)
R407C	1774
R134a	1300
R410A	1924
R513A	572
R1233zd	1
R1234Ze	<1

### What is GWP?

GWP is the global warming impact relative to the impact of the same quantity of carbon dioxide over a 100 year period.

### What is ODP?

Ozone depletion potential of a chemical is the amount of degradation to the ozone layer it can cause.

# Features

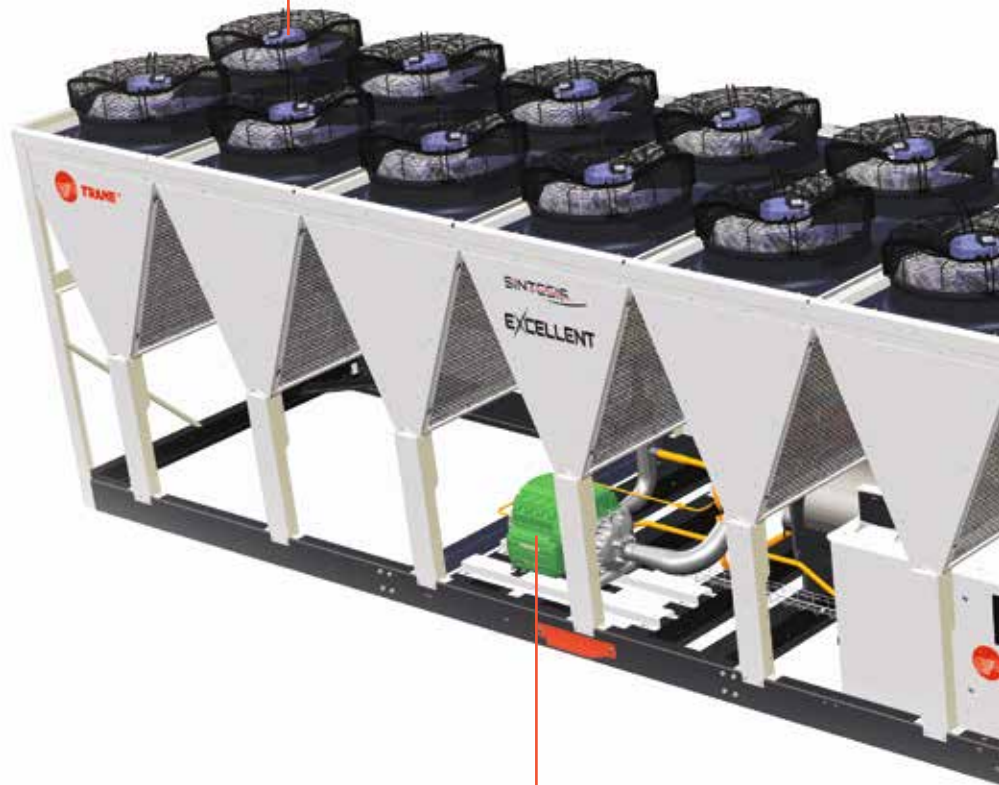
Innovative solutions to your needs

## Electronically Commutated (EC) fan motors

- Improved capacity modulation
- Reduced power consumption
- Reduced energy costs

## \* Micro-channel condenser coils

- Leading edge coil design for increased corrosion resistance
- Longer life expectancy
- Increased efficiency with less refrigerant
- Reduced carbon footprint
- 10% overall unit weight reduction



## High speed centrifugal compressors

- Oil free and silent operation thanks to magnetic bearings
- Integrated Variable Frequency Drive
- Soft starter module
- Only one moving part

**\* Trane smart control and interface combined**

- Leading TD7 touch screen with 7" color display
- Clear display of critical information
- Monitor settings, data trending, reports and alarms
- Simple, intuitive navigation
- Effective operation, monitoring and management
- Durable construction for both indoor and outdoor use



**\* Compact - High performance - Integrated design**  
**- Low charge (CHIL) flooded evaporator**

- Reduced refrigerant volume
- Increased efficiency
- Reduced carbon footprint



**Two refrigerant options**

- R134a
- R1234ze

*\* Trane Proprietary Technology*

## The Trane advantage



Trane is recognized as a world leader with over **100 years of experience** in creating and sustaining safe, comfortable and energy efficient environments while improving the performance of buildings and processes around the world.

Trane innovative solutions optimize indoor environments with the **broadest portfolio** of energy efficient heating, ventilating and air conditioning systems, building services, parts support and advanced controls in the industry.

To ensure your equipment continues to work at its optimum, throughout the life of the building, Trane provides a full range of service solutions, combined with in-house expertise and the **most extensive service and support network** in the industry.

And with Trane's **extensive rental fleet** all your temporary cooling and heating needs are served: we provide continuous cooling or heating during equipment changeouts or supplemental supply for those times when your cooling loads exceed your current system's capacity. For more information: [www.trane-chiller-rental.eu](http://www.trane-chiller-rental.eu)

## Ingersoll Rand recognition



Ingersoll Rand is ranked as 4th in the 2016 edition of FORTUNE'S World's Most Admired Companies list (Industrial Machinery category), based on criteria ranging from investment value to social responsibility.



Ingersoll Rand was recognized at the 2016 Climate Leadership Conference for its refrigerant phase-out efforts by the US EPA, its greenhouse gas emissions reduction goal of 35% by 2020 and its commitment to reduce the climate impact of the refrigerants used in its products by 50% by 2020.



Trane® is a brand of Ingersoll Rand®. Ingersoll Rand (NYSE:IR) advances the quality of life by creating comfortable, sustainable and efficient environments. Our people and our family of brands—including Ingersoll Rand®, Trane®, Thermo King® and Club Car® — work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; and increase industrial productivity and efficiency. We are a global business committed to a world of sustainable progress and enduring results.



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