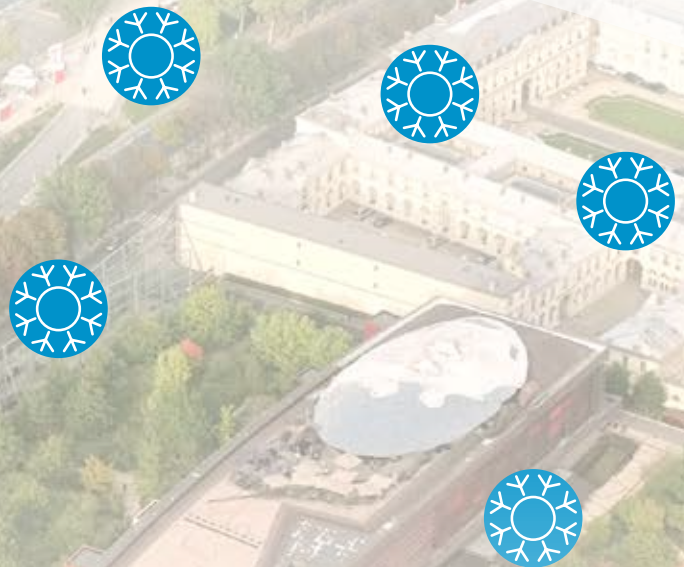


SUSTAINABLE AND  
RELIABLE **COOLING** OR  
**HEATING**. ALL YEAR ROUND.



**SINTECIS™**

**ADVANTAGE**

**Air-to-water Heat Pumps**  
**CXAF 290 - 700 kW**



# HEat

## Delivering HIGH EFFICIENCY in HEATING mode

Trane Engineering has built on years of experience with CXAM, CXAX and CXAO heat pumps to bring forward the latest innovation in refrigeration circuit design.

### Optimized defrost management

The characteristic Sintesis™ 'V' shaped heat exchanger has been optimized to accelerate the defrost cycle, improving the unit reliability by minimizing compressor cycling and maintaining comfort for building user.

### Improve thermodynamic performance with Trane Heat Booster system

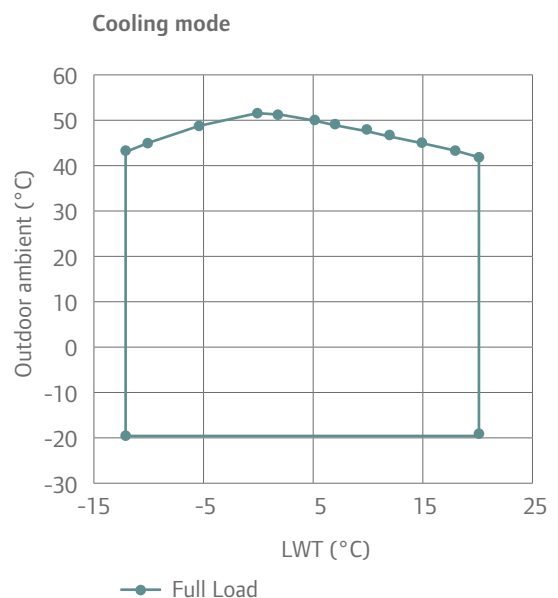
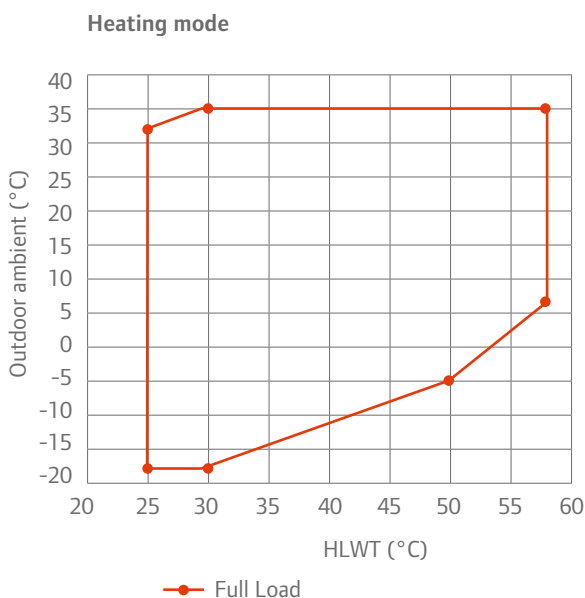
An innovative suction line gas heat exchanger, designed and built by Trane, combined with an electronic expansion valve and a meticulously tested software algorithm, allows the CXAF unit to achieve high performances in heating mode. The heat exchanger, located at the compressor inlet, increases subcooling and minimizes superheating in the evaporator, boosting the coil capacity through a higher enthalpy gain, without an impact on power consumption. Thus, the COP and SCOP increase on average by 12% compared to units without the Trane Heat Booster system.

### Proven reliability

Additionally, the Heat Booster system prevents any liquid from entering into the compressor, improving unit reliability.

## Operating maps

### Sustainable and reliable cooling or heating. All year round.



# What you get

## Welcome to a more sustainable future: electrification of heating

At Trane, we believe in **electrification of heating** as an important global contributor to mitigate climate change and reduce carbon footprint. **Low consumption, reliable performance and comfort** are our key design criteria.

CONFIGURABILITY	RELIABILITY	EFFICIENCY	SUSTAINABILITY
 <p><b>Every building application has specific needs.</b></p> <ul style="list-style-type: none"><li>• Efficiency level</li><li>• Acoustic packages</li><li>• Fan technology</li><li>• Hydraulic modules</li></ul>	 <p><b>Reliability is a Trane guarantee.</b></p> <ul style="list-style-type: none"><li>• Proven Sintesis™ components</li><li>• 3 R&amp;D facilities</li><li>• Factory compliant with latest ISO standards</li><li>• Eurovent certification</li></ul>	 <p><b>Low consumption, reliable performance and comfort</b></p> <ul style="list-style-type: none"><li>• Up to 20% improved efficiency vs. legacy products</li><li>• Class A or B in heating</li><li>• Exceeding ErP 2016 seasonal heating efficiency requirements</li><li>• Already compliant with ErP 2021</li></ul>	 <p><b>Electrification of heating</b></p> <ul style="list-style-type: none"><li>• Air-sourced renewable technology</li><li>• Lower carbon footprint compared to fossil fuel technologies</li><li>• Less equipment needed to heat or cool a building</li></ul>

### Sintesis Advantage heat pumps are ideal for



Office buildings



Healthcare



Food and beverage industry



Hospitality industry

# Trane Technology

Provides the innovative solution that your building needs

CXAF is built on Trane's well-known Sintesis™ platform, which means it shares many of the same components and technologies with a proven reliability record. This guarantees a smooth operation and reliable comfort for your building users, while also facilitating the life of service technicians and keeping maintenance costs to a minimum.

## 1 Fin & Tube heat exchanger

Modular design in 'V' shape for maximum performance in a small footprint

## Optional hydraulic module

- Housing within the chiller frame to keep overall footprint to a minimum
- Single or dual pump
- Optional water buffer tank
- Compatible with variable primary flow

## 2 Trane smart control interface

- 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

## 3 Tracer UC800

Reliable controller platform with proven algorithms to ensure smooth operations and optimum defrost control

- New generation of Trane control platform for chillers
- Advanced algorithms for the most challenging conditions
- Perfect balance of performance and economy



## HEat Booster (HEat version)

Dedicated refrigerant circuit fully designed and manufactured by Trane for superior heating performance



### Connectivity

- Full interoperability via SmartCom interface LonTalk®, BACnet® and Modbus
- Full remote control capability via our Trane BMS Electronically Commutated (EC) fans
- Improved capacity modulation
- Reduced power consumption
- Reduced energy costs



LONMARK  
SPONSOR



#### 4 Multi-speed outdoor fans

Available with AC and EC technologies

#### Optimized fan diffusers

- Remodelled to optimize airflow
- Fans consume up to 27% less power
- Noise level reduced at part load

#### 5 Brazen plate heat exchanger

Compact and proven design, used on CGAF platform

#### 6 Industry leading variable volume scroll compressor

- Optimized for part-load efficiency and higher seasonal efficiency
- Reliable operation over the lifetime of the unit
- Reduced energy consumption: no overcompression thanks to intermediate discharge valves (IDVs)

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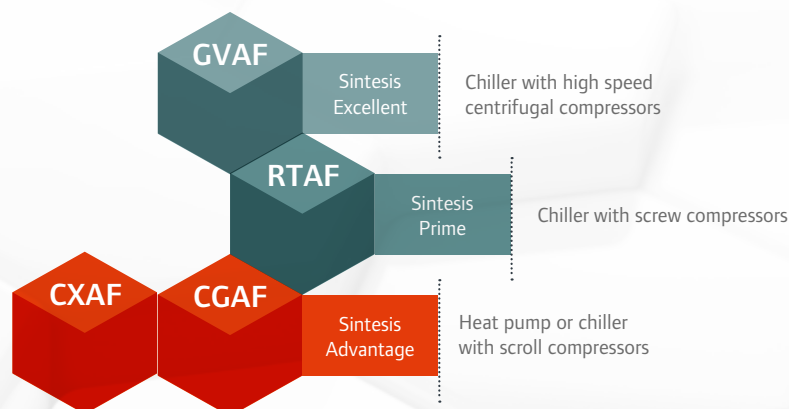


All units are compliant with all applicable EU Ecodesign Regulations under the ErP framework  
Directive 2009/125/EC of the European Parliament.





## Family of air-cooled chillers and heat pumps



The Sintesis™ Advantage model CGAF belongs to the Trane Sintesis™ air-cooled chiller portfolio representing industry leading performance and flexibility — for a perfect fit not only to your building and application requirements, but also to your sustainability and budget targets.

### The Trane Sintesis Advantage range:

- 14 sizes offering capacities from 290-700 kW
- 3 efficiency levels: SE, HE, XE
- 3 low-noise packages: SN, LN, XLN

### 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 solutions optimize indoor environments with a broad portfolio of energy efficient heating, ventilating and air conditioning systems, building services, parts support and advanced controls.

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 an extensive support network.