

Thermafit[®] Air-Source Modular Multipipe



Model MAS

30 tons (433 MBH)

Expandable to 300T (4,330 MBH) bank

For building owners and consulting engineers looking for a sustainable, ultra-reliable solution that will both heat and cool at the same time, the Thermafit air-source multi-pipe unit is the answer. An all-electric unit capable of three modes of operation — cooling, heating, or simultaneous heating and cooling. It is an all-in-one solution that can be easily integrated into new and existing systems.

High efficiency for maximum savings.

Thermafit MAS delivers COPs with up to 8.2 times greater efficiency than other forms of electric heating.

Features include:

- Next generation, low global warming potential R-454B refrigerant.
- Vapor injection to extend the operating range of the compressor for water temperatures of ~130°F (54.4°C) at 0°F (-17.8°C) outdoor ambient temp.
- True independent temperature control for chilled water and hot water loop.
- Trane modular design improves part load performance, allowing for 5-17% chiller bank turndown.
- Touch screen operator display with graphical interface for ease of operation, alarm monitoring, adjustment of user set points, and temperature trending.
- Optional cellular modem for remotely monitoring systems performance.
- Supports variable flow pumping, improving overall system efficiency.

Achieve the performance your building needs.

Thermafit MAS units are lab-verified, backed by Trane's exceptional system design and support. It offers:

- Reliable heating in outdoor ambient temperatures down to 0°F (-17°C), and hot water temperatures up to 140°F (60°C).
- True redundancy with modular design helps to eliminate single point of failure, ensuring continuous operation.
- Advanced defrost algorithm stages modules to reduce temperature fluctuations for improved heating performance. Drain pan comes standard.
- Seamlessly integrate into building automation systems with open, standard communication protocols.



Thermafit™ Modular Units

Trane's line of all-electric modular units helps you bring buildings into the future of sustainable comfort!

Meet capacity requirements with multiple independent units coupled together on a shared header system, electrical system and control system.

Modular design makes it easy to install (and expand) in tight spaces.

Maximum Flexibility




Thermafit air-source multipipe modules are ideal for year-round cooling and heating. Modular design offers compact footprint for retrofits and future expansions.

A flexible, all-in-one solution for simultaneous heating and cooling.

The Thermafit® air-source multipipe model MAS has a unique design that combines chiller and heat pump innovation. It uses three heat exchangers and electronically controlled valves to direct refrigerant. Depending on the mode needed, the refrigerant can flow through the evaporator and air coil for cooling, the condenser and air coil for heating, or both the evaporator and condenser for simultaneous operation.

What sets Thermafit MAS apart is its ability to satisfy the entire building's heating and cooling needs by independently operating the mode of each module in the bank. This allows the units to handle both cooling and heating loads, even if the loads are unbalanced. Moreover, both the chilled water and hot water loops are variable flow which improves overall system efficiency.

Three Modes of Operation

Cooling	Heating	Simultaneous
 <p>Module operates like an air-cooled chiller.</p> <p>The evaporator (refrigerant-to-water heat exchanger) absorbs heat from the chilled water loop, and rejects that heat to air coil.</p>	 <p>Coil is the Evaporator</p> <p>Module operates like an air-source heat pump.</p> <p>The air coil is the energy source in the circuit, absorbing heat from the outdoor air, while the condenser (refrigerant-to-water heat exchanger) rejects heat to the hot water circuit.</p>	 <p>Coil</p> <p>Module operates like a heat recovery chiller.</p> <p>The evaporator (refrigerant-to-water heat exchanger) absorbs heat from the chilled water loop and rejects that heat into the hot water loop through the condenser (refrigerant-to-water heat exchanger).</p>

General Data

Size	Full Load EER	ILPV EER	Fan Total	Operating Weight (lb)	Length (in)	Width (in)	Height (in)	Water Connection (in)
30 Ton (433 MBh)*	meets ASHRAE 90.1-2022	Meets ASHRAE 90.1-2022	2	272	95	48	90	4

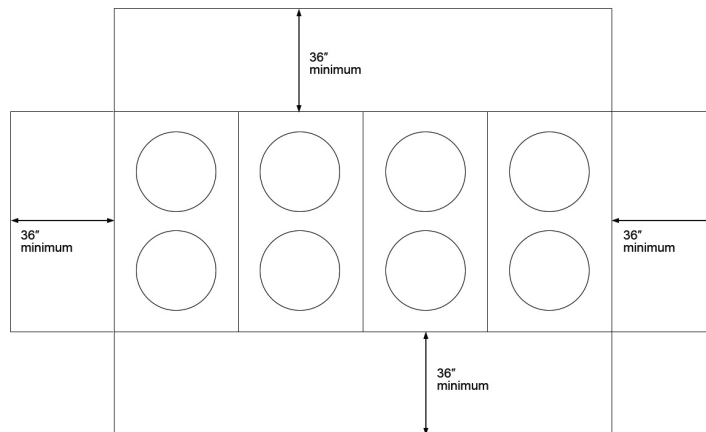
*Minimum of 3 modules are required for ordering.

Heating performance is tested per the AHRI 550-590 procedure.
Heating performance is not in certification scope of AHRI 550-590.

Service Clearances

No obstructions above units (top view).

If unit is surrounded by a fence, the minimum clearance is 48 inches. The fence must allow 50% airflow.



Learn more. Contact your Trane Account Manager.

[Trane.com/Chillers](https://www.trane.com/Chillers)



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.com](https://www.trane.com) or [tranetechnologies.com](https://www.tranetechnologies.com).

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ARTC-SLB014-EN
05/13/2024