



Trane[®] Axiom[™] Water-Source Heat Pumps

with eFlex[™] technology



Energy savings you can measure. Comfort you can feel.

Control, comfort and cost-saving operation: that's what you can expect from a Trane® Axiom™ water-source heat pump system with eFlex™ technology.

Compared to conventional heat pump systems, a Trane variable-speed system can provide superior comfort while providing energy savings up to 60 percent. Its eFlex™ compressors and fans can change speeds to match the load requirements of the space, saving energy without sacrificing comfort. In fact, occupant comfort can be improved due to the more consistent temperatures and quieter operation that variable-speed technology can provide.

The Axiom™ water-source heat pump with eFlex technology delivers energy savings you can measure and comfort you can feel. From integrated factory program controls that maximize performance to energy efficiencies, it is easily set apart from the rest.

Controls and Automation: an Integrated Solution

Axiom water-source heat pump systems are available with Tracer™ UC400 with integrated unit controllers, pre-programmed with Trane-developed algorithms to take full advantage of Trane eFlex variable-speed compressors and fans. This allows customization of cycling modes, airflow parameters and more. Individual unit controllers can communicate with the Tracer™ SC intelligent field panel, which can continuously monitor building information and coordinate the operation of the entire heat pump system for optimized system control.

Trane Air-Fi™ Wireless Systems

Trane Air-Fi™ wireless systems provide significant advantages to meet customer needs by providing a lower initial cost; ease of installation for reduced risk; increased reliability and flexibility for easier problem solving; and fewer maintenance issues for worry-free operation and cost savings over the life of the system. Trane Air-Fi wireless systems help save time and money with industry-leading technology and performance.

eFlex™ Technology: Energy Savings and More

Trane® Axiom™ water-source heat pumps with eFlex™ technology offer exceptional efficiency at full speed and full load. With the ability to reach up to 40 EER, a Trane variable speed water-source heat pump system can provide energy savings up to 60 percent when compared to a conventional water-source heat pump system. (See chart on next page.)

Axiom units with eFlex technology also increase system reliability by minimizing on/off cycling, which greatly reduces wear and tear on Trane eFlex variable-speed compressors and fans.

Most importantly, Axiom units with eFlex technology improve occupant comfort. As cooling or heating demand decreases, the heat pump system operates at reduced speeds to maintain precise space temperature control. And for fast, efficient removal of excess humidity, an enhanced dehumidification control sequence optimizes the fan and compressor speed ratio to draw moisture from indoor air.

One system. Many benefits.

Integrated Control and Automated System Capability –

Available factory programmed Tracer™ UC400 controls use Trane-developed algorithms to maximize the performance and energy efficiency benefits of the Trane eFlex variable-speed compressors and fans.

Superior Indoor Comfort – Trane eFlex variable-speed technology gradually changes compressor and fan speed, which reduces temperature swings and ensures quiet operation.

Quiet Operation – eFlex technology provides comforts beyond air temperature and humidity: minimal on/off cycling means fewer audible distractions from the sudden stop or start of system operation.

Efficiency and Sustainability – eFlex technology brings the energy-saving design of water-source heat pumps to new levels of efficiency, which is good for your budget—and the planet.

Industry Leader – Trane was the first manufacturer to offer an AHRI-certified variable-speed water-source heat pump—and remains the industry leader.

More High-Efficiency Solutions for More Buildings –

Axiom water-source heat pumps with eFlex technology are designed and built to meet the needs of a wide variety of buildings and are available in multiple configurations, including horizontal designs and models that support three-phase electrical power.

Energy-Saving Demand-Limiting Mode – Reduces system output during times of the day when utility costs are highest, but unlike competing systems, still provides functionality to preserve building occupant comfort.

Indoor Air Quality – With increased air filtration flexibility, a Trane water-source heat pump can accommodate both MERV 8 and LEED-creditable MERV 13 filters.

Legendary Trane Reliability – Axiom water-source heat pump systems with eFlex technology provide quality, reliability, longevity and performance. Increasing this reliability even further is Trane eFlex variable-speed technology: it minimizes on/off cycling, which greatly reduces wear and tear on Trane eFlex variable-speed compressors and fans.

Axiom™ water-source heat pump systems with eFlex technology can be a perfect fit for the heating and cooling needs of a variety of building types, including those used by educational institutions, businesses and government entities.

How can an Axiom™ water-source heat pump with eFlex™ work for you?

The answer: Almost any way you wish. Because the full line of Axiom™ water-source heat pumps with eFlex™ technology has been developed to address nearly any structure scenario. Whether it's for new construction or existing structures, for single or multiple buildings, to replace an existing heat pump system or to convert from another HVAC technology, there's a Trane system for you—and skilled Trane professionals stand ready to help develop it, install it and bring it online.

- A** **Horizontal and vertical configurations** are available for design flexibility.
- B** **Integrated control system:** Factory-programmed Tracer™ UC400 controls use Trane-developed algorithms to maximize the performance and energy-efficiency benefits of the Trane® eFlex™ variable-speed compressors and fans.
- C** **Electronically commutated motor (ECM)** powers eFlex variable-speed fans. This high-efficiency, long-life, brushless DC motor is well suited for applications requiring speed control over a wide operating range.
- D** **Dual-sloped drainpan** is noncorrosive and meets IAQ requirements.
- E** **Insulated closure** contributes to quiet operation.
- F** **Dual-isolated compressor** reduces noise and vibration.
- G** **Vortica™ blower (horizontal model only):** Advanced fan system uses less energy to produce more airflow with minimal sound.



Additional Features

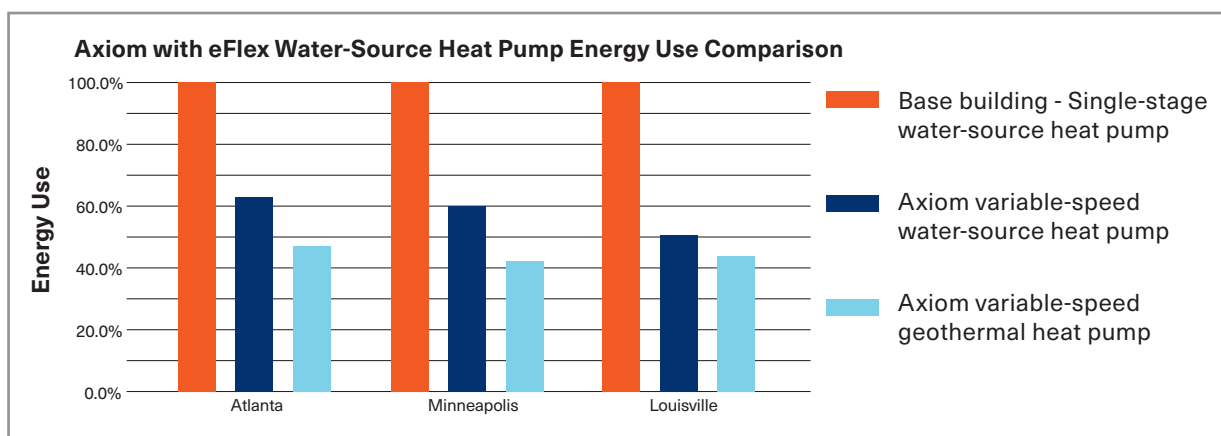
Airflow flexibility is provided by multiple return-air/supply-air combinations.

Air-filtration options include MERV 8 and LEED-creditable MERV 13 filters.

Safety devices include condensate overflow protection, freezestat and refrigerant monitoring.

R-410A refrigerant is non-ozone-depleting.

Geothermal systems, both new and existing, are fully supported by Axiom™ water-source heat pumps with eFlex technology and can yield significant energy savings.



Note: Annual estimated energy use comparison projected using Trane Trace™ building energy and economic software, assuming 91,000 sq. ft. of office space.

The Trane® commitment never varies.

Support for Efficient Technologies

Trane® has a long history of support for the most efficient and proven technologies available.

Our water-source heat pump systems continue this legacy by being fully compatible with geothermal technology—a technology that has demonstrated its ability to greatly reduce operating energy costs and contribute toward environmental sustainability in the long term.

Exceptional Reliability and Service

If there's one reason why those who specify Trane equipment once specify it again and again, it's the unvarying Trane commitment to its customers for the life of the product. From the first day of installation through every day of operation, your Trane product's reliable, economical performance reflects on us. We're proud of our products. We want you to be proud of them, too.

A Solution We Will Find Together

The singular success of your new Trane® system is built on a foundation that is the expertise and hard work of hundreds of people. These people—the experts at Trane—are committed to helping you design, engineer, install and maintain the ideal system for your specific application. Because every application is unique. Every building is unique. And, most importantly, every customer is unique. So when you partner with Trane to develop a solution to your HVAC needs, know that we're committed to analyzing your needs. And then, together, we will find the right solution for your needs—and for the needs of your building and the lives within it.

Learn more at trane.com



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 or tranetechnologies.com.

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