



WHY CHOOSE THERMEAU?

This document highlights the key elements that set Thermeau apart from the competition, particularly from heat pumps using Inverter technology. Through a detailed analysis, it outlines the differences in performance, reliability, design, and durability between Thermeau systems and these variable-speed technologies.

- ✓ Operation
- ✓ Reliability
- ✓ Quiet Performance
- ✓ Recognition
- ✓ Efficiency
- ✓ Innovation
- ✓ Commitment
- ✓ The Clear Choice



Operation

Inverter heat pump technology is primarily designed for residential heating and cooling applications, where power modulation allows the compressor capacity to adjust gradually based on the home's thermal needs. This approach helps maintain a stable indoor temperature and provides better humidity control.

However, in the context of pool heating, this approach offers no meaningful operational advantage. Heating a large volume of water requires steady, continuous power rather than gradual modulation. As a result, an On/Off heat pump, like those designed by Thermeau, delivers faster temperature rise and optimal performance in low-temperature conditions, both of which are essential for this type of application.

In fact, when heating a large volume of water, especially during cooler periods such as nighttime, users expect the target temperature to be reached as quickly as possible so they can enjoy their pool without delay. In this context, the On/Off technology used by Thermeau proves to be more effective. It allows the compressor to operate at full capacity immediately, ensuring a rapid temperature rise. In addition, it maintains stable water temperature without significant fluctuations or long recovery times.

Moreover, in low temperatures, an Inverter heat pump must reduce the speed of its compressor to prevent frosting, which significantly decreases its performance. In contrast, a Thermeau heat pump, thanks to its large evaporator surface, maintains optimal performance even in cold weather.



Efficiency

This point is also demonstrated by the analysis of actual heating capacities (BTU/h). In most situations, a pool heater operates under low outdoor temperature conditions, where energy demand is at its highest. It is precisely in these conditions that performance differences become most apparent.

For comparison, the Thermeau TH140B delivers a heating capacity of 87,000 BTU/h under low-temperature conditions (50 °F air, 80 °F water, 63% humidity), while a competing model in the same class using Inverter technology produces only about 61,000 BTU/h under the same conditions. This difference is explained by the fact that the Inverter heat pump automatically reduces its compressor speed, limiting its instantaneous output capacity, a disadvantage when it comes to heating a large volume of water quickly.

AHRI CERTIFICATION

Recognized internationally, AHRI certification guarantees a highly efficient, high-performance product with a low environmental impact.

AHRI low-temperature test (50 °F air, 80 °F water, 63% humidity)



Furthermore, according to AHRI certification data, Thermeau models demonstrate COP values equal to or higher than those of Inverter models, both at full load and at low temperatures. This shows that Inverter technology does not provide any tangible improvement in efficiency or speed for the specific application of pool heating.

COEFFICIENT OF PERFORMANCE (COP)

At 27 °C (80 °F), the Thermeau® pool heater reaches a COP of 6, producing six times more energy than it consumes.



Reliability

Inverter pool heaters operate at reduced speeds for longer periods. This approach increases the runtime of the compressor and electronic components, which raises the risk of premature wear and mechanical failures.

This technology, mostly originating from recent Asian manufacturing, remains poorly understood by American technicians. The limited availability of parts and the complexity of the electronic systems make repairs more costly and time-consuming. For example, replacing an electronic board on an Inverter model can exceed \$1,500, excluding labor, whereas the equivalent part for a Thermeau unit typically costs less than \$300 and is easy to obtain.

The robust, locally designed Thermeau products also feature superior protection of electronic components against weather conditions, significantly reducing the risk of failure. They are built to resist corrosion, maintaining their integrity even in salt-air regions. This example is just one of the many advantages of Thermeau pool heaters' simple design, reliability, and durability compared to Inverter technology models.



Innovation

Furthermore, although Thermeau pool heater models are not yet equipped with built-in Wi-Fi modules, a feature currently in development, they remain compatible with a variety of external systems available on the market. This design choice helps avoid potential electronic failures or user errors associated with integrated connectivity, while still giving users the flexibility to add this type of control at their convenience.

Quiet Performance

Regarding noise levels, the data available across different technologies cannot be considered comparable or verifiable. In fact, in the pool heater market, there is no regulatory standard defining a standardized method for measuring noise.

While energy performance is certified according to AHRI standards, the noise level values (in decibels) published by manufacturers are not regulated. Some measure at a specific distance, while others do so under different conditions, making any comparison irrelevant and unreliable.

At Thermeau, although no official decibel data is published, field experience demonstrates excellent acoustic performance. Many customers in densely populated residential areas, where noise regulations are strict, have reported no issues.



Commitment

Regarding warranties, Thermeau stands out by providing 5-year coverage on both parts and labor for the Prestige models, whereas most competitors with Inverter technology and similar advertised capacity typically offer 5 years on parts but only 3 years on labor.



5-year warranty on labor



5-year warranty on parts



10-year limited warranty on our heat exchanger

This difference becomes particularly significant when considering the increased technological complexity of Inverter systems. Repairs often require specialized technicians, who are less common and may be less familiar with these newer systems. In addition, the duration and complexity of such interventions can drive labor costs higher. In contrast, Thermeau models are built for ease of repair, featuring a straightforward, durable, and accessible design.

Recognition

Finally, what truly sets Thermeau apart is its proven reliability and industry recognition. Although the Thermeau brand was established in 2011, its founders have been active in the heating and refrigeration industry since 1993 and have been manufacturing heat pumps since 2001. With over 30 years of hands-on experience, these skilled HVAC professionals design the units themselves, ensuring strict quality control at every stage of production. Over the years, Thermeau has consistently demonstrated the strength and durability of its products, solidifying its reputation for excellence.

In contrast, many competitors, particularly those offering Inverter technology pool heaters, neither design nor manufacture their products in North America. These units often come from Asian suppliers, whose operations are relatively recent (less than 10 years on the market) and provide no clear guarantee of long-term parts availability.

Thermeau, for its part, is committed to maintaining the availability of replacement parts even for models over 10 years old, ensuring long-term repairability and a reliable investment for its customers.



THE CLEAR CHOICE

Thermeau pool heaters stand out for their actual power, reliability, and local design. Unlike Inverter models, they deliver consistent performance, simple maintenance, and long-term parts availability, ensuring fast and efficient heating year after year.