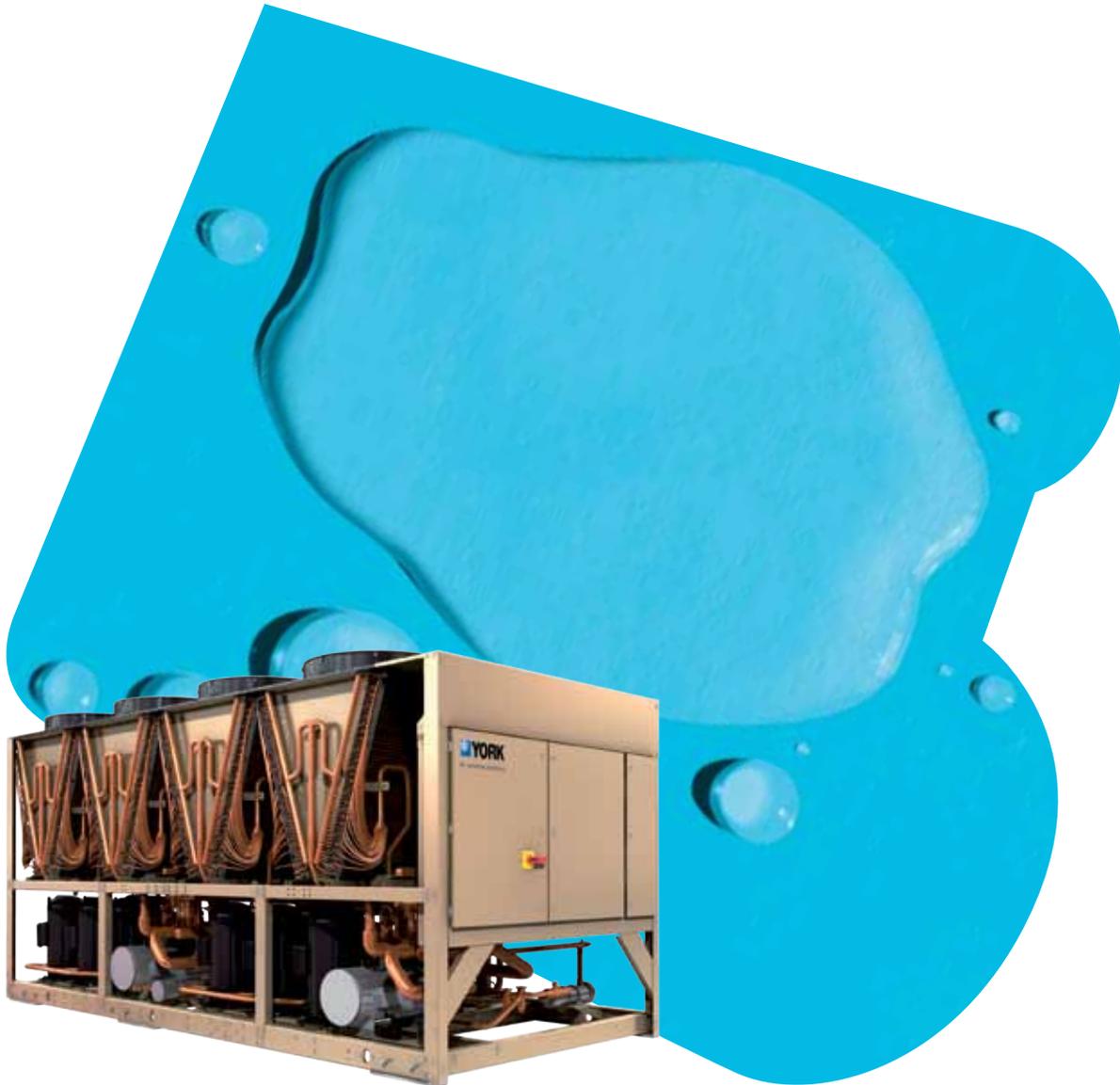


YORK® YLPA AIR-TO-LIQUID  
REVERSIBLE SCROLL HEAT PUMPS

# Heat pump technology: The most efficient way to heat water



 **YORK®**

BY JOHNSON CONTROLS

**Sound**

As quiet as a chiller



**Ease of installation**

Plug-and-Play Solution



**Sustainability**

Zero ODP



**Efficiency**

Efficiency levels that exceed the ASHRAE 90.1 Standard



# YORK<sup>®</sup> YLPA Scroll Heat Pumps.

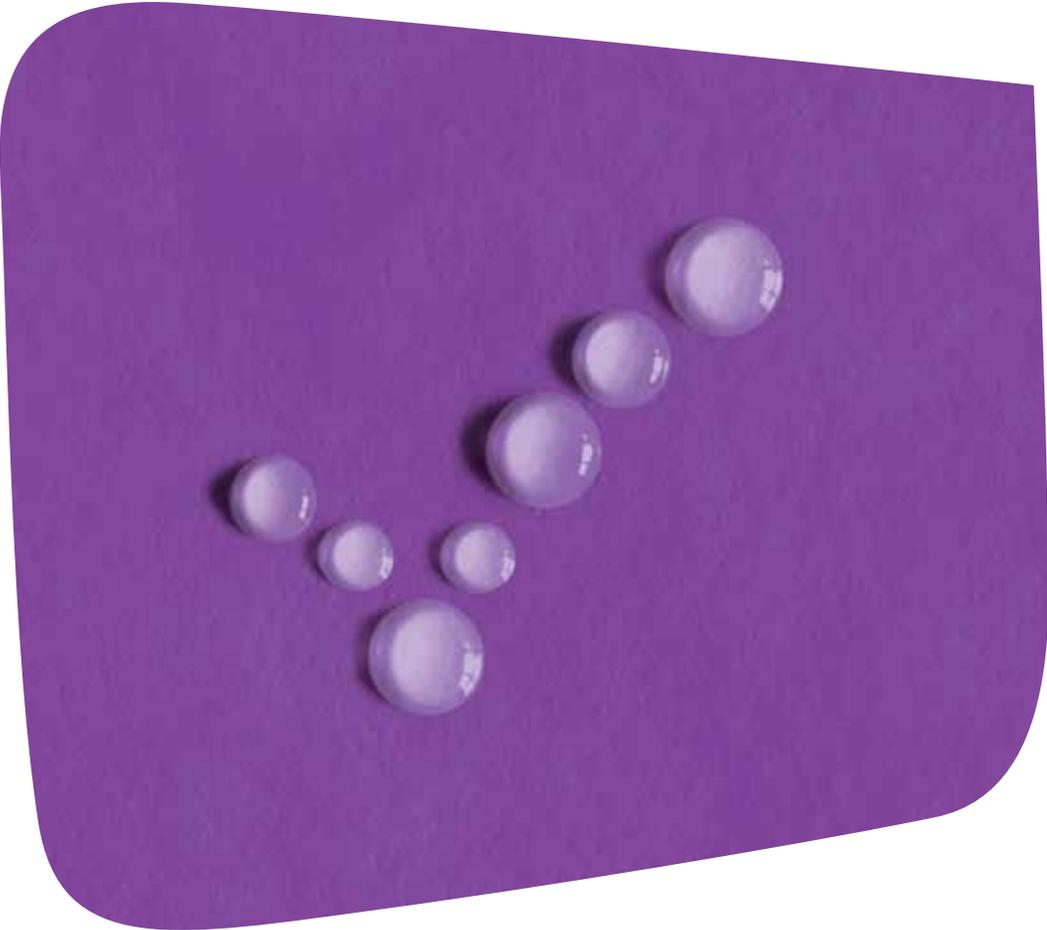
It's well known that moving thermal energy from one substance to raise the temperature of another is a more efficient form of heating than burning fuel. That's why in residential and light commercial space-heating applications, heat pumps are preferred over oil and gas furnaces and boilers. But the benefit of heat pump efficiency is not limited to space heating. The same principle of efficiency can be applied to heating water, which makes the YORK<sup>®</sup> YLPA Air-to-Liquid Heat Pump the smart alternative to boilers and water heaters for commercial, institutional, and process applications.

As an air-to-liquid heat pump, the YLPA design takes thermal energy from the air and transfers it to the liquid requiring heat. Using air as the heat source gives the YLPA heat pump the flexibility to be used practically anywhere as a primary or a supplemental generator of hot liquids. And because it is reversible, the YLPA heat pump can be operated in cooling mode providing a convenient heating and cooling solution in one central unit.

When you think beyond the conventional boiler choice, you'll find the YLPA heat pump delivers benefits that include:

- Globally certified energy efficiency in an extended operating envelope
- Low sound levels that are suitable for nearly any location
- Sustainability that makes your facility more environmentally friendly and helps achieve LEED<sup>®</sup> certification
- Plug-and-play design that simplifies installation and commissioning

**The efficient, quiet, sustainable, and simple alternative  
to boilers and water heaters.**



# Turn off your boiler. Turn on energy savings.

Although boilers and water heaters are typically the technology of choice for hydronic heating and domestic hot water production, today's high energy bills make it worthwhile to consider more efficient ways to utilize the energy you're buying.

The more efficient way to heat liquids is the YORK YLPA heat pump. That's because thermal efficiencies of commercial water heaters or boilers can range from 85% to 95%, which translates into a coefficient of performance (COP) below 1.0.

In dedicated heat pump mode, however, the YLPA heat pump can produce hot water up to 130°F at 3 times the COP of a boiler. The significant difference in COP means superior utilization of energy input, making the YLPA heat pump a far more energy-efficient hot water generator – which becomes even more attractive with up to 14.8 IPLV off-design efficiency in cooling mode.

To deliver a high COP, the YLPA heat pump employs an optimized defrost cycle using auto-adaptive controls to run only as long as needed. Plus, enhanced liquid distribution through the coils in heating mode, optimized coil-module design, and advanced fan control also boost COP.

With efficiency levels that exceed the ASHRAE 90.1 Standard and an extended operating envelope down to 14°F, you can specify the YLPA heat pump with confidence – knowing it can create cold and hot water at a lower cost in practically any location any time of the year.

**Fossil-fuel costs are high – and rising.**



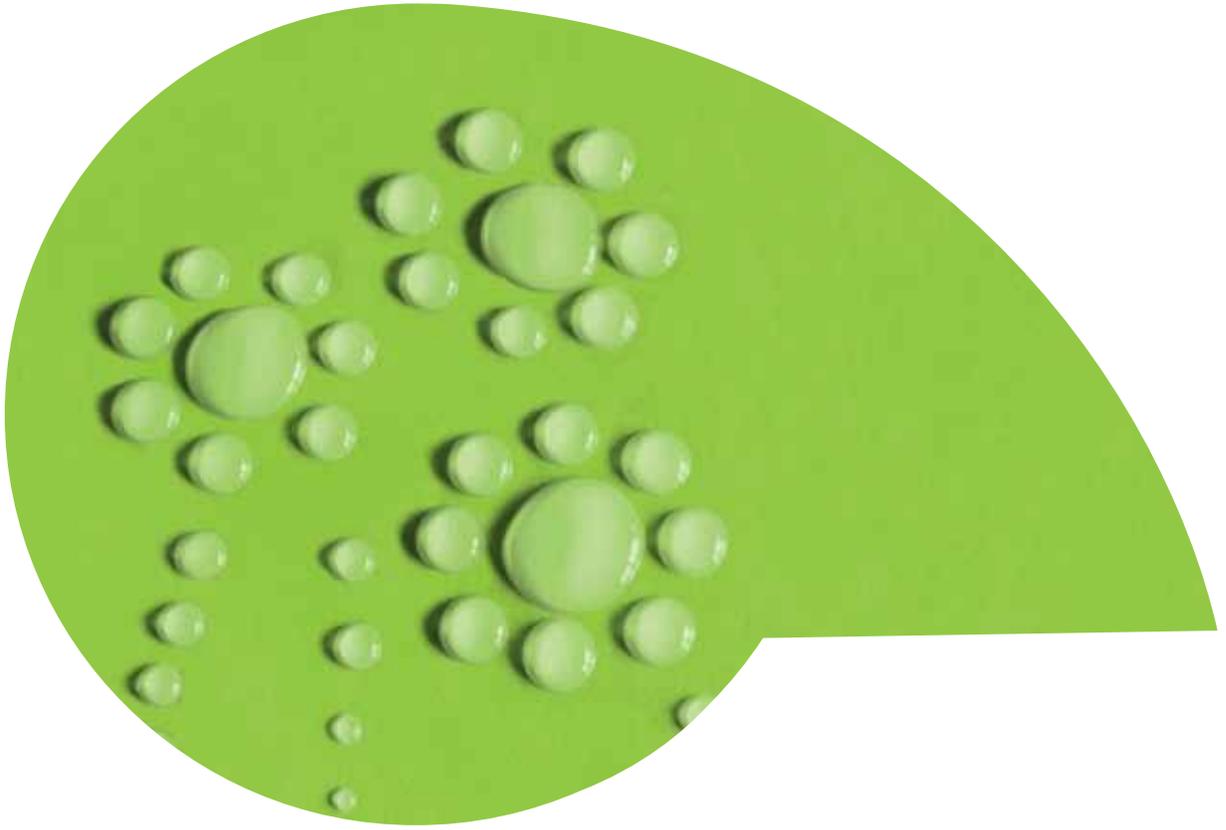
# Be quiet. Blend in.

The noise produced by outdoor mechanical equipment often draws a lot of attention. That's why more and more codes and ordinances adopted by states, cities, and townships are including stringent decibel regulations to control sound emissions.

But with YORK YLPA heat pumps, we proudly point out how quietly they operate. YLPA heat pumps are designed to help comply with sound requirements during the day, when background noise levels often mask unit sound. And they make it easy to meet night-time requirements when sound-level limits are typically an order of magnitude lower than day-time regulations.

Best of all, the YLPA design brings the advantage of quiet operation to heat pump duty. Because heat pumps often operate with greater evaporator and condenser pressure differences than chillers, the higher head pressure that results increases compressor workload and sound output. But the YLPA heat pump is optimized to handle high head pressures and run as quietly as a chiller. That means the YLPA heat pump doesn't draw attention to itself.

**Lower the volume. Increase goodwill.**



# Greener design. Easier credit.

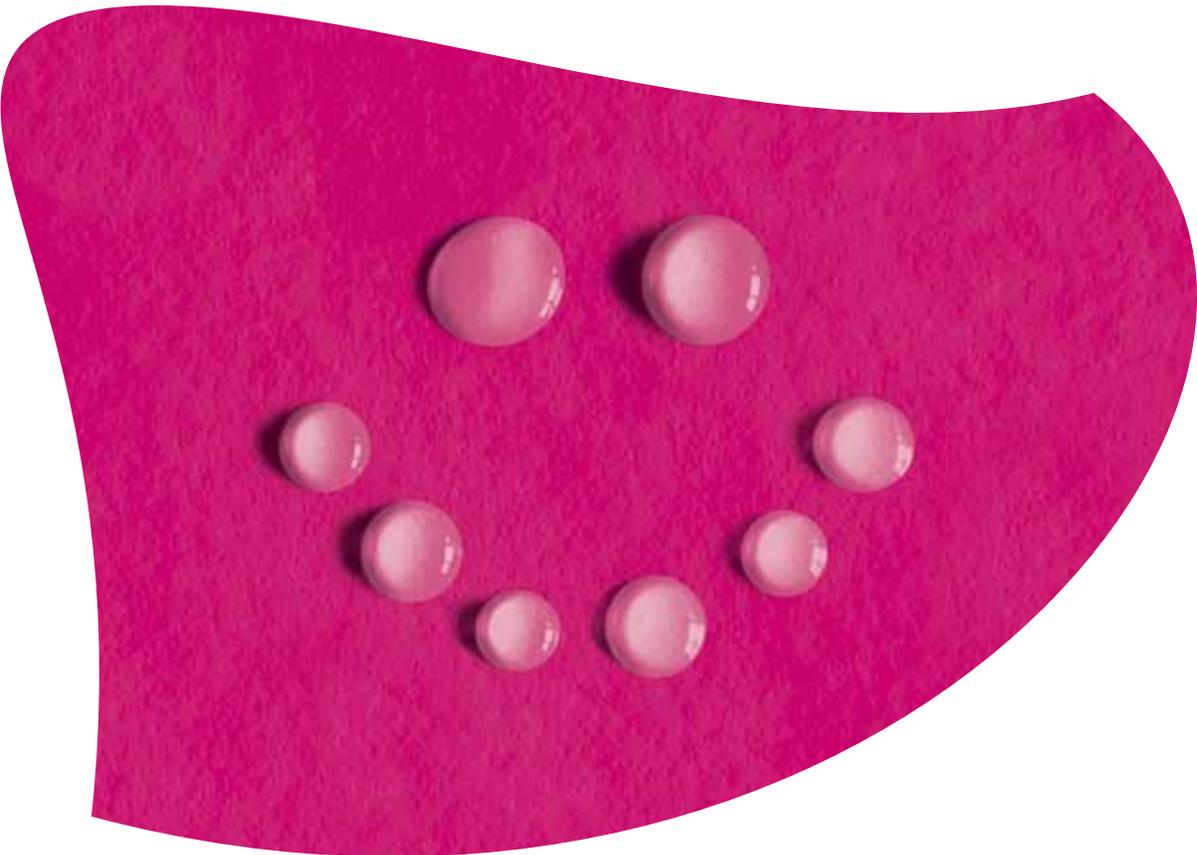
Now you can get full credits for using a smarter water-heating solution.

That's because the YLPA heat pump provides environmentally friendly benefits in two ways. First, it reduces the direct effect of refrigerant interaction in the atmosphere by using HFC-410A refrigerant, which has zero ozone-depletion potential and no phase-out date in accord with the Montreal Protocol.

And second, the YLPA heat pump minimizes the indirect effect of utility CO<sub>2</sub> emissions by using less fossil fuel than boilers or water heaters, because it is always more energy efficient to transfer heat than create it. The high efficiencies of heat pumps, when compared to boilers, help your LEED® project qualify for Energy and Atmosphere credit 1 (EAc1).

When you add up both the direct and indirect benefits, the YLPA heat pump is the best heating choice for the environment.

**Get the credit(s) you deserve for making a wise environmental choice.**



# Plug in at one point. Talk to any protocol

With today's concerns about costs, you win points when you spend less on installation and repairs.

That's why the YLPA heat pump is designed to make installation fast and easy. The compact, factory-tested YLPA unit minimizes the cost of rigging, pad size, and field testing.

And for power and control connectivity, the YLPA heat pump employs a "plug-and-play" design using a single-point power connection. You stay in perfect control with continuous monitoring via standard Metasys™ communications, as well as native BACnet,® Modbus,® N2 or optional Lonworks® communications for virtually any BMS.

And to keep operating costs low, you can take advantage of the Johnson Controls global support, parts, and service network, including optional Planned Service Agreements (PSA) coverage. With over 15,000 technicians in over 150 countries, we're the world's largest HVAC and building-service provider, bringing decades of chiller and heat pump experience to your door.

To learn more about why the YLPA heat pump is a smart solution for you, visit [johnsoncontrols.com/ylpa](http://johnsoncontrols.com/ylpa) – or locate your nearest Johnson Controls branch office at [johnsoncontrols.com/locations](http://johnsoncontrols.com/locations).

**Save on installation and maintenance.**

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