

AAON Alpha Class

Game-Changing. And World-Changing.
The Next Generation of Heat Pump Performance,



α ALPHA
CLASS™



For a Better Tomorrow

AAON Alpha Class is our highest-performing solution ever and is the industry's most versatile line of commercial air-source heat pumps. By pushing the boundaries of what's possible with extraordinary omni-climate performance, AAON Alpha Class empowers more people in more places to adopt cleaner, more efficient HVAC technology for a better tomorrow.



Omni-climate – engineered for everywhere.

AAON products are highly configurable and optimized to meet your needs. With outstanding versatility and performance, AAON Alpha Class is ready for your demanding and unique environment.

First-in-class low-ambient heating capability.

Alpha Class is the most advanced line of commercial air-source heat pumps available. Rigorously tested and proven to operate down to -20 degrees Fahrenheit, AAON Alpha Class is leading the industry in low- ambient performance.

Redefining excellence.

Alpha Class offers the innovation our future demands – today – with options like variable speed technology, all-electric or dual fuel, 100% outside air capability, energy recovery, and low global warming potential refrigerants.

Reliable heating at low-ambient temperatures.

Capable of operating reliably at lower ambient temperatures and with high heating capacities over a wide range of operating conditions.

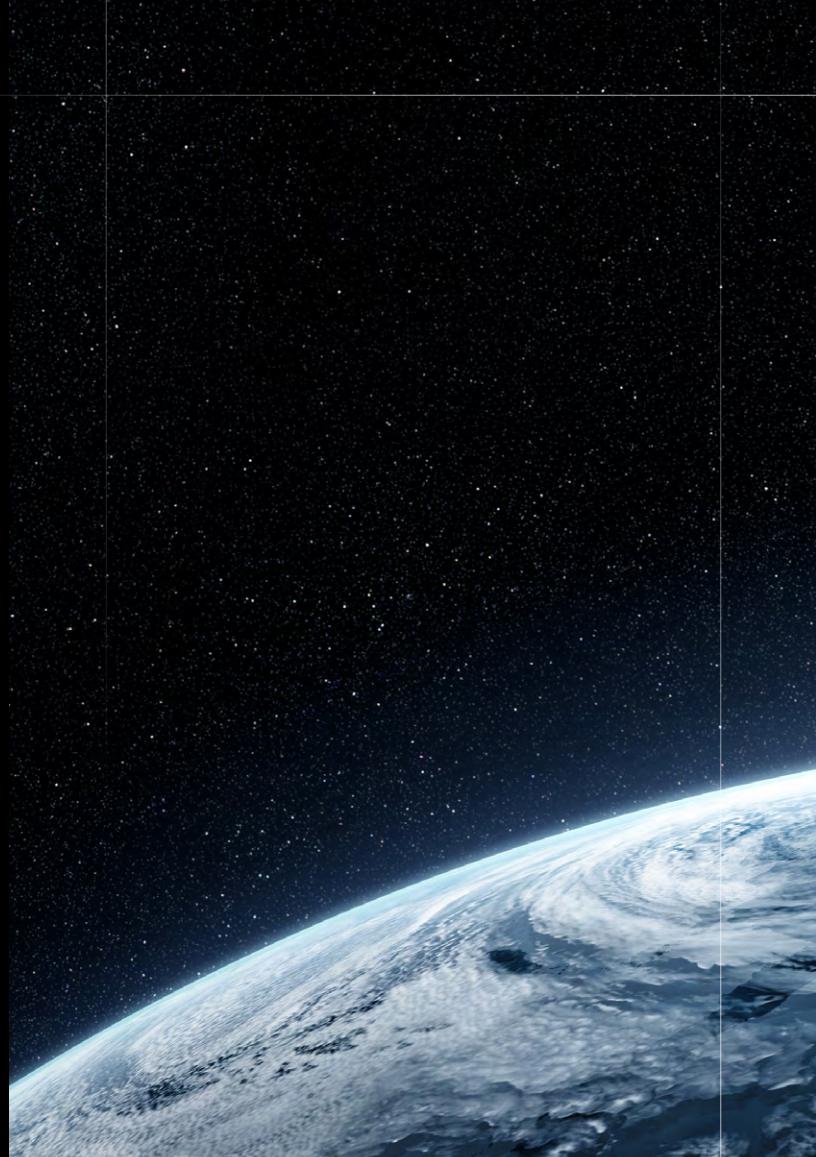
High-efficiency electrified heating and high-efficiency cooling.

AHRI-certified heating COPs of up to 4.06 and cooling IEER values up to 22.8, saving energy costs year-round.

Precise comfort control without burning fossil fuels.

Variable speed compressor heat pump heating combined with an auxiliary modulating electric heater allows for comfortable heating control, even in extreme temperatures without the use of fossil fuels.

With proven performance in nearly any climate, Alpha Class is a critical solution that meets the increasing demand for building decarbonization.



Alpha Class was specifically engineered for a world that increasingly demands higher efficiency and lower emissions.

Performance with purpose.



AAONAIRe® energy recovery.

The addition of AAONAIRe energy recovery wheels significantly increases the efficiency of AAON Alpha Class units to maximize energy savings. Selecting this feature increases the COP of the system significantly and also provides more effective performance by preconditioning the outside air.



Wide range of available capacities.

With many configurations and sizes available, AAON Alpha Class can handle demanding challenges. Check with your local rep for current available capacities.



Variable speed compressors.

These operate with the highest part load efficiencies over any other compressor technology and provide precise temperature and humidity control. Specific controls protect the compressor by ensuring it operates within the safety of the compressor operating envelope.



Renowned cabinet design and construction.

Standard two-inch rigid polyurethane foam-injected panels have a thermal resistance R-value of 16 or greater, exceeding that of a cabinet with four-inch fiberglass construction. This retains useful heating to the building instead of wasting it through the cabinet.



Variable speed fans.

Variable speed supply fans and variable speed outdoor fans provide high-performance heat pump heating and cooling airflow. Variable speed control allows for energy savings at reduced airflow.



Economizer option.

Up to 100% airflow economizer dampers provide energy-saving, free conditioning when conditions meet setpoint values. This feature also provides ventilation air under all conditions to meet indoor air quality requirements with fresh outside air.



Modulating hot gas reheat capacities.

Modulating hot gas reheat humidity control is available to provide energy efficiency dehumidification, even with low sensible heat loads, without the temperature swings common with on/off reheat systems.



Dual fuel option.

In addition to the 100% electric configuration, AAON provides the option to select a supplemental gas heater to provide heat in situations that require it. The gas heat is only used in extremely low-ambient temperatures, greatly reducing overall fossil fuel usage while providing comfort in all conditions.

Introducing the Next Generation

Experience three tiers of Alpha Class performance to meet every need and climate:



Optimized efficiency and value for standard commercial applications.



High-performance, versatile configurations with all-electric and dual-fuel options.



The most advanced, ultra-low-ambient, state-of-the-art rooftop unit ever created.

ASHP Technology Tier	ECO SERIES	PRO SERIES	EXTREME SERIES
Compressor Technology	2-Step	Digital	Variable Speed
Ambient Operating Limit	Operable to 10°F	Low-Ambient: Operable to 0°F	Ultra Low-Ambient: Operable to -20°F
Full Load Capacity Ratio	100% Capacity at 47°F	100% Capacity at 47°F	Available with 100% Capacity at 5°F
IEER Fed Min 13.9-14.1	up to 18.1	up to 16.6	up to 22.8
COP Fed Min 3.2-3.3	up to 3.88	up to 3.78	up to 3.69
Controller Type	VCCX2 Controls	VCCX2 Controls	Stratus Controls
Energy Recovery —Multiple Heat Wheel Medias	✓	✓	✓
Energy Recovery—Fixed Plate	✓	✓	✓
Dual Fuel DFS	✓	✓	✓
All Electric	✓	✓	✓
Zeihl-Abegg Low Sound Cond Fans	✓	✓	✓
Insulation Rating	R16 Cabinet Insulation	R16 Cabinet Insulation	R16 Cabinet Insulation

The Alpha Class You Know and Love

ECO SERIES

ECO SERIES, our traditional heat pump that we've spent years perfecting, is reliable, efficient, and easy to operate.

- Best for moderate to warm climates or facilities prioritizing straightforward, cost-effective performance.
- Operates reliably down to 10°F.
- Simple 2-Step or Digital Compressor for dependable, energy-efficient results.

EXTREME SERIES

EXTREME SERIES is a completely redesigned, optimized refrigeration system that achieves unprecedented ultra-low ambient performance in even the most demanding environments.

Available in a complete product lineup up to 40 tons, with multiple box sizes to meet diverse building needs, EXTREME SERIES performs in cold-climate applications that require maximum heating capacity, efficiency, and reliability.

- Available with 100% heating capacity at 5°F.
- Operates reliably to -20°F.
- Intelligent mode switching for peak efficiency without increasing footprint.
- Refrigerant Injection Technology ensures consistent capacity and compressor reliability.
- Dual Fuel Simultaneous (DF/S) integrates gas and heat pump heating for efficiency.
- Redesigned coils maximize heat transfer and efficiency.
- Stratus Controls integrates all HVAC control functions with touchscreen interface and remote access.

PRO SERIES

PRO SERIES takes Alpha performance to the next level with advanced, omni-climate capability.

- Best for cold or variable climates, or applications demanding premium comfort and control.
- Operates reliably down to 0°F.
- Variable Speed Compressor technology for superior efficiency and precision.



A New Era of Precision and Automation



To fully realize the potential of EXTREME SERIES, we created Stratus — a complete rethinking of AAON controls. Stratus simplifies installation and maintenance with intuitive touchscreen controls, streamlined startup, directive troubleshooting, and full remote monitoring. Built as an extensible platform, Stratus is designed to grow with advancing technology, offering future-ready performance analytics.

Tested, Proven, Reliable

The AMCA Accredited NAIC Testing Laboratory — the most capable HVAC testing lab in the world — allowed AAON engineers to push AAON Alpha Class low-ambient heating capability to a new level.

The NAIC is capable of testing thermal and acoustic performance under full environmental load from -20°F to 130°F, with customized testing capabilities, including up to 8 inches per hour of rain, up to 2 inches per hour of snow, and up to 50 mph of wind. With AAON Alpha Class, you get reliable and verified performance in extreme climates.



Engineered and Built in America

From our U.S. facilities to your rooftop — AAON continues to redefine what's possible in commercial HVAC. Engineered and built in America for performance, reliability, and innovation that lasts.



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