



THE NEXT GENERATION OF HEAT PUMP PERFORMANCE



AAON has been dedicated from the beginning—  
leading the industry in developing the most energy-efficient  
commercial HVAC equipment in the world.



α ALPHA  
CLASS™

# The Next Generation

By pushing boundaries with extraordinary omni-climate performance, Alpha Class meets the growing demand for building decarbonization. This empowers more people in more places to adopt cleaner, more efficient HVAC technology for a better tomorrow.

We're continuing our mission to provide cutting-edge technology with unmatched value by introducing three tiers of Alpha Class—**ECO SERIES**, **PRO SERIES**, and **EXTREME SERIES**.



**ECO SERIES** and **PRO SERIES** represent different configurations of Alpha Class you already know and love.

**EXTREME SERIES** is a completely new tier of performance and is the most innovative and state-of-the-art commercial rooftop unit ever created.




With **EXTREME SERIES**, we've completely redesigned and optimized the refrigeration system to achieve unprecedented Ultra Low Ambient performance in even the most demanding environments. In essence, we've found a way to get more out of the compressors by re-thinking how they ought to operate altogether.

The system works to provide optimal heating by intelligently switching between multiple operating modes. It adapts in real-time to deliver peak efficiency while extending the effective operating range—all without compromising equipment footprint or increasing building electrical load.

**EXTREME SERIES** provides an unprecedented operating range down to -20 degrees Fahrenheit—a market first in the commercial rooftop sector—while maintaining 100% heating capacity at 5 degrees Fahrenheit.

## Alpha Class Technology Comparison

ASHP Technology Tier	ECO S E R I E S		PRO S E R I E S	EXTREME S E R I E S
Compressor Technology	2-Step	Digital	Variable Speed	Refrigerant Injection
Ambient Operating Limit	Operable to 10°F		Low-Ambient: Operable to 0°F	Ultra Low-Ambient: Operable to -20°F
Rated Capacity Temperature	100% Capacity at 47°F		100% Capacity at 47°F	100% Capacity at 5°F
IEER Fed Min 13.9–14.1	up to 18.1	up to 16.6	up to 22.8	up to 21.0
COP Fed Min 3.2–3.3	up to 3.88	up to 3.78	up to 3.69	up to 4.06
Controller Type	VCCX2 Controls		VCCX2 Controls	Stratus Controls
Delta Class Controls Sequence	—	✓	✓	✓
Energy Recovery—Blue Wave Wheels	✓		✓	✓
Energy Recovery—Fixed Plate	✓		✓	✓
Dual Fuel 	✓		✓	✓
All Electric	✓		✓	✓
Zeihl-Abegg Low Sound Cond Fans	✓		✓	✓
Class 1A Leakage Rated Dampers	Future		Future	Future
Insulation Rating	R16 Cabinet Insulation		R16 Cabinet Insulation	R16 Cabinet Insulation



# Extreme Series Features

## Refrigerant Injection Technology

By integrating refrigerant injection technology into commercial rooftop units, we're delivering performance previously unavailable in this class of system.

When cold outdoor air temperatures reduce the mass flow of refrigerant to the compressor—causing system capacity to decrease significantly—our solution makes a critical difference. The system reroutes warm liquid refrigerant directly back into the compressor to raise the mass flow rate and keep the compressor at a safe operating point.

This isn't just about low temperature operation. With this technology, we can adjust the operating envelope to provide highly efficient cooling for regions with greater cooling demands. We're pushing performance to its absolute limits while ensuring reliability through extensive testing.

## DF/S

Traditional air source heat pump systems switch entirely to gas heat when they can no longer meet a building's heating demand. **EXTREME SERIES** maintains 100% relative capacity at 5 degrees Fahrenheit, then continues using both heat pump heating and gas heat simultaneously.

We call this innovation dual fuel simultaneous, or DF/S—an operating sequence that AAON has uniquely mastered over years to increase efficiency and reduce reliance on fossil fuels to supplement a building's heating demand.

## Redesigned Coils

**EXTREME SERIES** pushes the boundaries of performance with advanced design features that begin with completely redesigned coils. After years of simulating countless designs to optimize circuitry, we've created a unique coil system that maximizes performance in ways never before possible.

## Stratus

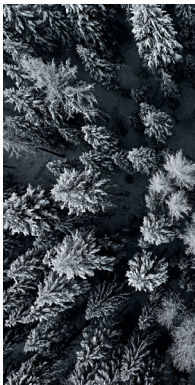
To fully realize the potential of Alpha Class **EXTREME SERIES**, we created Stratus—not just a controller—it's a complete ecosystem that integrates every aspect of HVAC control into a single, cutting-edge platform.

We simplified the wiring to reduce complexity, leveraged the latest programming architecture for faster processing, and created sophisticated sequences that optimize performance in any climate.

The intuitive touchscreen interface, directive troubleshooting, and streamlined startup procedures decrease service time. And with remote access, you can monitor energy consumption, maintenance, and performance from anywhere.

Stratus was built as an extensible platform—it's designed to allow the addition of new capabilities and functionality. As technology advances, so will Stratus—bringing you more automation, smarter predictive analytics, and expanded capabilities.

Built by technicians for technicians, Stratus helps to reduce operational costs, extend equipment lifespan, and optimize building efficiency without compromising footprint.



AAON continues to innovate, to lead, and to provide the solutions that will revolutionize the market.

Alpha Class is the benchmark of efficiency, performance, and sustainability, delivering products that meet the demands of today—and define the standards of tomorrow.

With Alpha Class, AAON is building the future.

