



Revision: YDHA-TSL (05-26) REV-A

Supersedes: 144F-0518

TECHNICAL SPECIFICATIONS FOR MODEL YDHA

**DOAS P125 ROOFTOP UNIT
WITH COOLING, DEHUMIDIFICATION REHEAT, AND GAS HEAT**



In keeping with our policy of continuous product improvement, we reserve the right to alter, at any time, the design, construction, dimensions, weights, etc., of equipment information shown here.

Capacities		
	5 - 30	Tons
	75 - 800	MBH
	30 - 90	kW
	750 - 10,550	CFM

MODEL YDHA Space Conditioning

APPLICATIONS
0% - 50% Outside Air

Standards, Codes and Beyond

The design professional is being asked to use more energy intensive dilution ventilation air while reducing the overall building energy usage by 30%. How do you implement evolving building standards requirements while minimizing cost?

- ▶ ASHRAE 62.1-2016 – ventilation air per building type and activity.
- ▶ ASHRAE 90.1-2016 – equipment efficiency.
- ▶ ASHRAE 189.1-2014 – high performance green buildings.

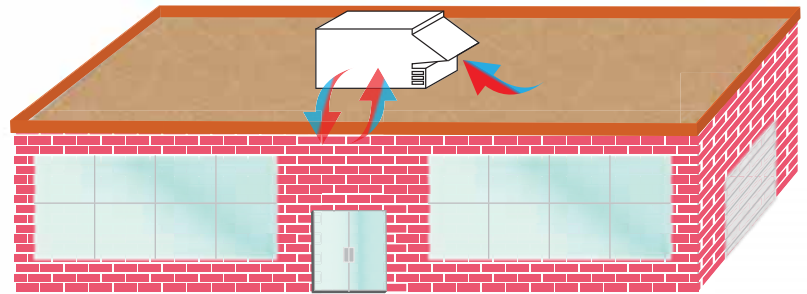
These standards and guidelines will be codified in the coming years.

The Model YDHA Solution

Difficult application challenges (like those listed on previous page) are beyond the capability of contemporary equipment.

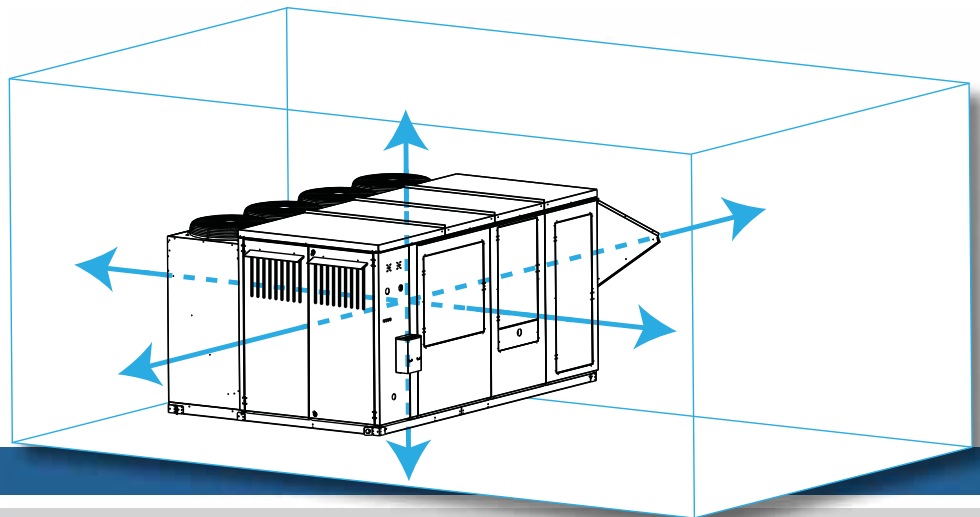
The right choice is Reznor.

YDHA



Packaged Hybrid System

- YDHA installed with YDMA (DOAS) = unified platform
- YDHA - 50/50 outdoor to return air flow ratio
- Continuous conditioning technology
- 90% condensing gas heat
- High efficiency DX system
- High efficiency supply fans
- Factory installed VFD
- Integrated energy recovery



Revit Models

Design teams are increasingly using 3D tools to better lay out building systems. Reznor brand products support this effort with REVIT drawings. The models have been specifically implemented to make the design professional's work easier, faster and more accurate.

The Reznor Model YDHA

Heating System

When it comes to heating efficiency and reliability, Reznor leads the world. The YDHA carries the fourth generation of condensing 90+% heat sections and fifth generation of standard efficiency 80+% heat sections. And don't forget, for many climates, heating (versus cooling) is where the savings potential really exists.

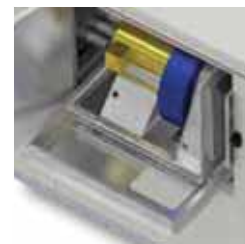


Features:

- 5:1 or 10:1 gas modulation
- 2 or 4 stage gas & electric control
- 92% & 80% gas heating efficiency
- Constant gas heating thermal efficiency
- 409 stainless steel heat exchangers
- SCR electric heat control
- ANSI Z83.3 certified
- Condensate neutralizer

Fan System & Construction

The supply fan is the heart of the system and the one component in a package unit that impacts all other mechanical functions. YDHA units exhibit state of the art fan technology and system design.

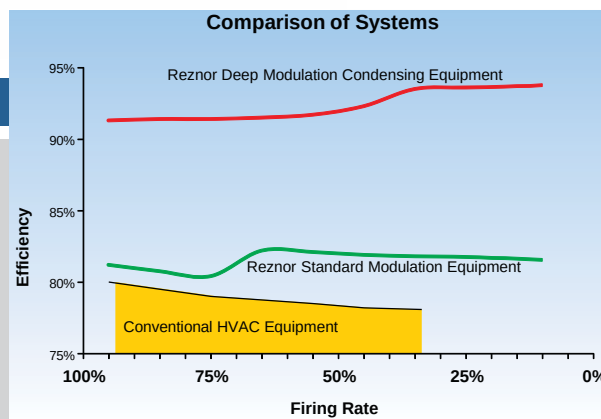


- Direct drive plenum fan
- Slide-out servicing & inspection
- VFD or ECM control (standard)
 - » Duct static pressure control
 - » Building static pressure (power exhaust)
 - » Constant volume
 - » High/Low speed control
 - » Supply fan tracking (power exhaust)
- High & low filtration hoods
- 11 configurations
- MERV 8 & 13 filters
- CFM monitoring



Gas Modulation Efficiency

Total cost of ownership is the truest measure of value for your HVAC investment. The ability to modulate the gas input allows greater control over constantly changing load conditions. Most heating systems lose over 6.25% of their thermal efficiency when modulating. Reznor models start with high efficiency and maintain that efficiency throughout the modulation range to maximize your HVAC investment dollars.



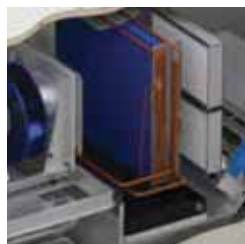
Features & Benefits

DX System

High efficiency DX system - up to 12.2 IEER. This efficiency translates into lower operation cost.

Features:

- Energy efficient digital scroll compressors
- 10%-100% capacity control
- ECM condenser fans
- Low ambient operation
- Corrosion-proof, double sloped drain pan
- Sound blankets
- Coil coating - 6,048 hours salt spray effectiveness
- Ozone friendly R410A
- Froststat, high and low pressure switches
- Anti-cycle programs
- Hot gas reheat
- ReHeat Pump™ - Dehumidification System
 - » Independent DX Circuit
 - » 15-17°F Temperature Rise
 - » Modulated Capacity
 - » COP > 20
 - » Low Ambient Operation



Energy Recovery & Exhaust Fan

Energy recovery systems recover exhaust air energy and re-introduce it into the conditioned space. Model YDHA, with the total enthalpy energy recovery module, integrates this savings allowing greater application flexibility.

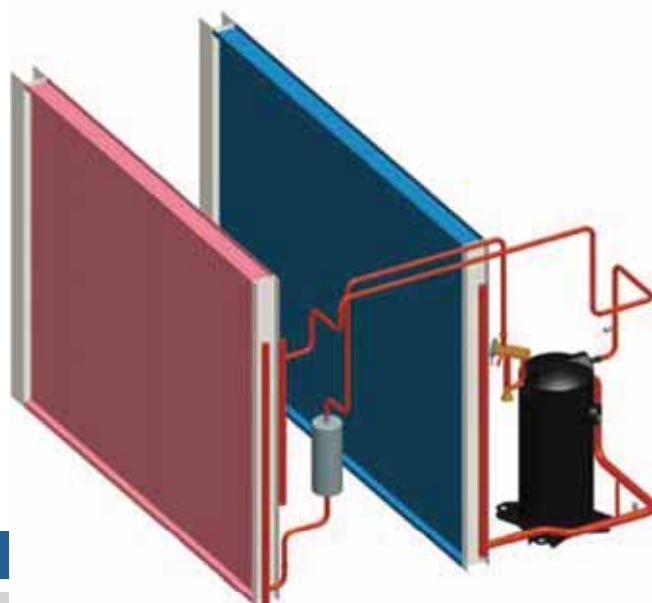


Features:

- Integrated power, controls, and mechanical
- ARI rated internal enthalpy wheel
- Minimal cross contamination (less than 5%)
- Slide out servicing
- Optional low ambient control kit for temperatures below 10°F
- Electric preheat
- Standard barometric relief exhaust damper
- Outdoor CFM measurement and monitoring

ReHeat Pump™

Model YDHA dedicated reheat system, provides stable and predictable year-round performance. The independent circuit design allows superior part load EER performance without the hassle of low ambient control. The digital capacity control reliably maintains a stable 52°-55°F discharge air during the spring, summer and fall months from the pre-cool DX coil and primary DX coils. The independent reheat circuit then applies reheat back into the airstream as needed.



Reheat Performance	Entering Air Conditions		DX Capacity	Reheat Capacity	Leaving Unit (°F dB/ wb/dp)	
Warm Spring Day	83/69	62.5	31%	100%	72/59.8	52
Rainy Fall Day	68/64	62	31%	87%	72/59.9	52
Cold & Raining	60/60	60	OFF	100%	72/60.8	53

Note: Dry bulb and wet bulb temperatures show dewpoint.

⚠ DANGER ⚠

FIRE OR EXPLOSION HAZARD

- Failure to follow safety warnings exactly could result in serious injury, death, or property damage.
- Improper installation, adjustment, alteration, service, or maintenance can cause serious injury, death, or property damage.
- Installation and service must be performed by a qualified installer, service agency, or the gas supplier.
- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Leave the building immediately.
- Immediately call your gas supplier from a phone remote from the building. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

For more information on Reznor HVAC products:

- **Contact your local Reznor representative at 1-800-695-1901**
- **Refer to the manuals and additional consumer materials found at www.reznorhvac.com**

