



*Air-Cooled Condenser*  
with Microchannel Coil Technology



# Efficient Cooling for a Better Bottom Line



Lower energy consumption and reduce operational costs with the newest air-cooled condenser from Heatcraft Refrigeration Products. Featuring an innovative design with advanced microchannel coil technology, this high-efficiency unit provides significant benefits compared to standard copper-aluminum, round-tube, plate-fin condensers.

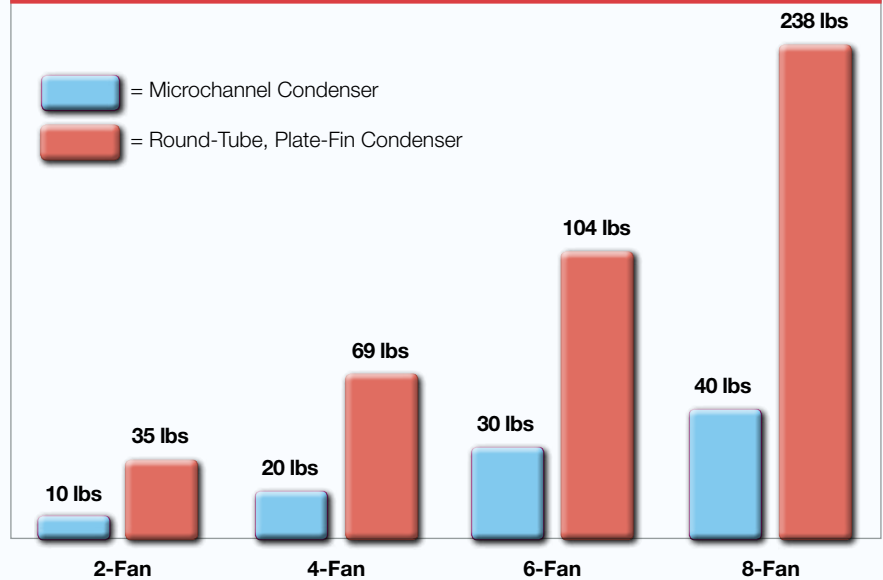
The use of microchannel coil technology and energy-efficient variable speed EC motors™ qualifies this condenser for our E Solutions™ product portfolio. E Solutions-branded products are designed to exceed current energy and environmental standards.



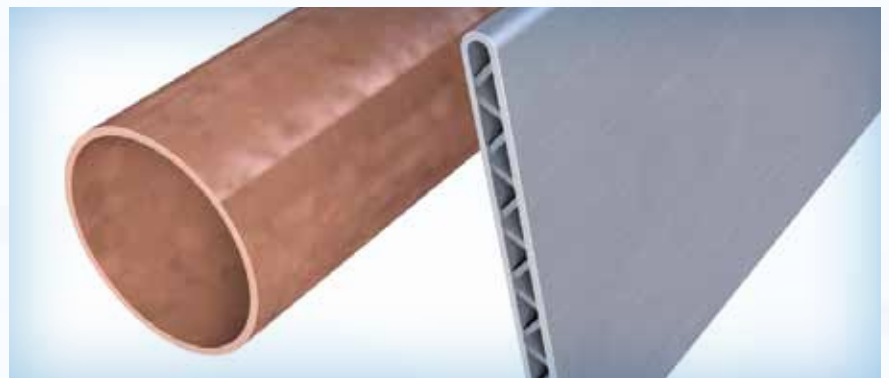
## Significant Reduction in Refrigerant Charge

One of the most noticeable benefits of the condenser's microchannel coil design is that it offers more than a 70% reduction in condenser refrigerant charge<sup>1,2</sup> compared to traditional, round-tube, plate-fin condensers. This can translate to \$2,000 in refrigerant charge cost savings per unit.<sup>2,3</sup>

### Refrigerant Charge Comparison



### A Side-by-Side Comparison



The condenser's microchannel coil, composed of a series of flat tubes or channels, features a dramatically lower internal volume and a higher primary surface area than traditional round refrigerant tubes, allowing it to achieve comparable cooling capacity with much less refrigerant charge.

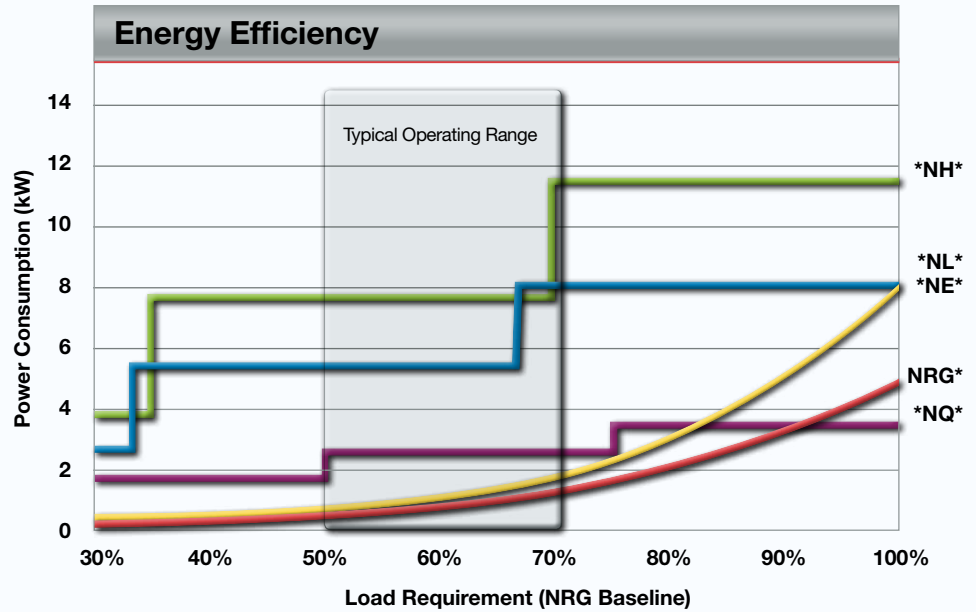
<sup>1</sup>Based on R-404A refrigerant charge for flooded condenser based on NRGD02A014 vs BNES02A015 at -20F ambient

<sup>2</sup>Does not include receiver, piping or manifold charge

<sup>3</sup>Based on 198 lbs of refrigerant charge reduction in comparable 8-fan units at \$10 per pound price for R-404A

## Reduced Energy Consumption

Variable speed EC fan motors maximize energy efficiency, adjusting speed according to system demands and stabilizing head pressure. In addition to lower fan energy costs, variable speed capability also provides a substantial savings on compressor energy consumption.



## Improved Corrosion Resistance

The all-aluminum microchannel coil design offers dramatically improved corrosion resistance, virtually eliminating galvanic corrosion—even in coastal environments!

## Corrosion after 1 year in a coastal application



Microchannel Air-Cooled Condenser Coil



Standard Air-Cooled Condenser Coil

## Benefits that Can Really Pay Off

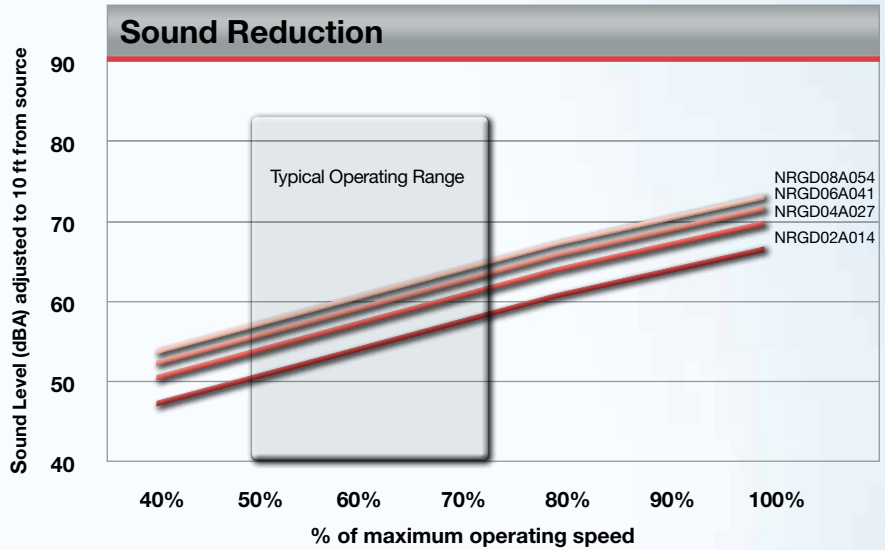
Not only does this efficient condenser offer a significant reduction in refrigerant charge and less energy consumption, it also features a lower sound, height and weight!

## Lighter Weight

Due to an all-aluminum coil design, the air-cooled condenser offers up to a 34% reduction in weight compared to standard units. A lighter roof load may reduce the need for structural supports.

## Lower Sound Levels

This new series of air-cooled condensers reduces sound intensity by more than 50%. That's 3.4 dB lower than comparable round-tube, plate-fin, variable speed EC air-cooled condensers.

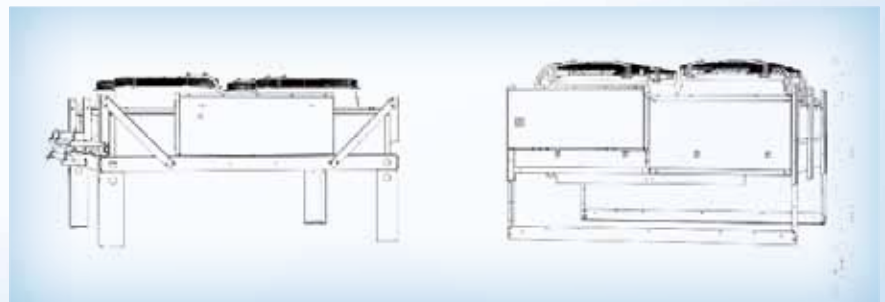


## Significant Sound Reduction

Model	30% (255 rpm)	50% (425 rpm)	70% (595 rpm)	100% (850 rpm)	*NE @ 100%	NRG Advantage
NRGD02A014	44.3 dB	50.6 dB	57.6 dB	66.5 dB	69.9 dB	3.4
NRGD04A027	47.3 dB	53.7 dB	60.6 dB	69.5 dB	72.9 dB	3.4
NRGD06A041	49.1 dB	55.4 dB	62.4 dB	71.3 dB	74.7 dB	3.4
NRGD08A054	49.1 dB	56.7 dB	63.6 dB	72.5 dB	75.9 dB	3.4

## Lower Height

The condenser's design offers a 25% lower cabinet height (with same clearance) compared to standard air-cooled condensers. This can reduce the need for fencing or walls to keep the condenser out of sight.



# At a Glance

## New Feature

- Microchannel coil technology

## System Performance

- Microchannel coil provides more than a 70% reduction in refrigerant charge
- Variable speed EC motors offer a dramatic reduction in energy consumption
- Improved corrosion resistance versus traditional coils

## Additional Savings

- 50% reduction in sound intensity
- 34% reduction in weight
- 25% lower profile

## Environmentally Friendly

- 100% recyclable, all-aluminum coil

## Enhanced Durability

- Mono-metal coil virtually eliminates galvanic corrosion

## Warranty

- 2-year product warranty on the microchannel air-cooled condenser
- 2-year warranty on the microchannel coil
- 3-year warranty on the variable speed EC motors

## Standard Features

- Microchannel heat exchanger
- R-404A, R-407C, R-507, R-407A, R-422D, and R-410A compatible
- 208-230V/30/60Hz or 460V/30/60Hz
- Factory-installed manifolding\*
- 20" clearance legs
- Copper connection points with Schrader access valves
- Factory wired for customer-supplied analog signal
- Direct-acting, series-wired motor control
- Through-the-door non-fused disconnect switch
- End-access panels for coil cleaning
- Internal baffles between all fan cells

## Optional Features

- 40" clearance legs
- Individual motor fusing
- Individual motor circuit breakers
- Factory-installed analog board:
  - CPC
  - Danfoss
  - Novar
- Motor control and wiring
  - Direct-acting, parallel-wired
  - Reverse-acting, series-wired
  - Reverse-acting, parallel-wired
- Export crating
- Proportional pressure control



*\*Single circuit standard*



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