

NAE Hydro Air Conditioner Series

 **navien**

## **NEW** NAE Condensing Hydro Air Conditioner with Hydro-Boost

The NAE Hydro-Boost system is the coolest innovation  
for maximizing air conditioner performance and efficiency



# Introducing the NEW NAE Condensing Hydro Air Conditioner with Hydro-Boost

Innovative Hydro-Boost technology takes air conditioning to a new level



The new NAE Hydro Air Conditioner enhances traditional air conditioner technology by incorporating an intermittent condenser spray feature that increases system operation efficiency and performance. With Hydro-Boost enabled, the NAE can achieve performance levels of up to 30 SEER2\*. Compressor blankets, swept wing fan blades and ECM motors all contribute to its quiet performance.



Performance levels up to 30 SEER2\* with Hydro-Boost enabled.



Corrosion-resistant cabinet design with durable powder-coated galvalume steel panels.



Inverter driven variable-speed compressor.



Custom modes: Efficiency, Normal, Performance, Boost.



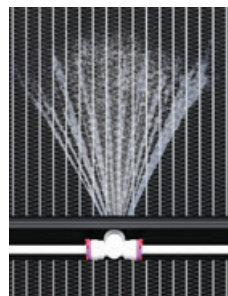
Operates at low sound levels.



IoT module provides simplified contractor installation and diagnostics.

## Improved efficiency and lower utility costs with Hydro-Boost

The NAE Hydro-Boost system is enabled by simply installing the factory supplied water line and strainer to a fresh water source to supply the NAE. The NAE, using proprietary algorithms, will automatically spray water on the outdoor coil, when appropriate, to maximize cooling performance and efficiency. With Hydro-Boost enabled, the NAE can achieve performance levels of up to 30 SEER2\*, depending on installation and operating conditions. This innovative feature can reduce energy consumption while increasing capacity providing an overall cost savings for the homeowner.

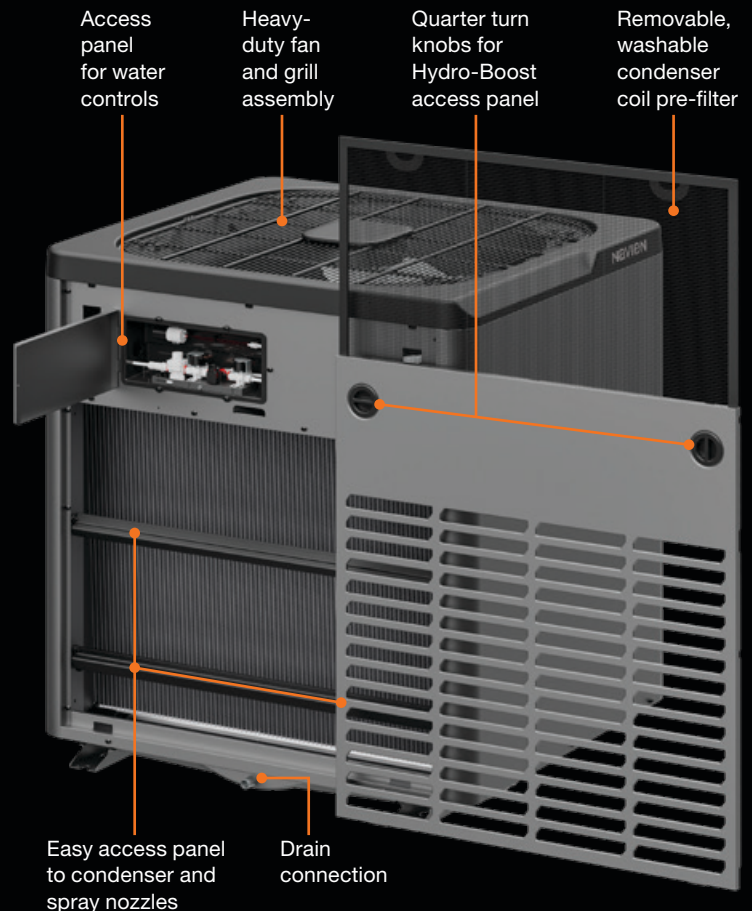
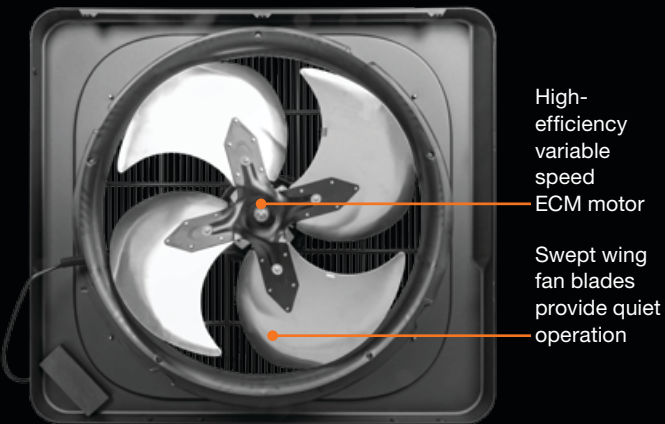
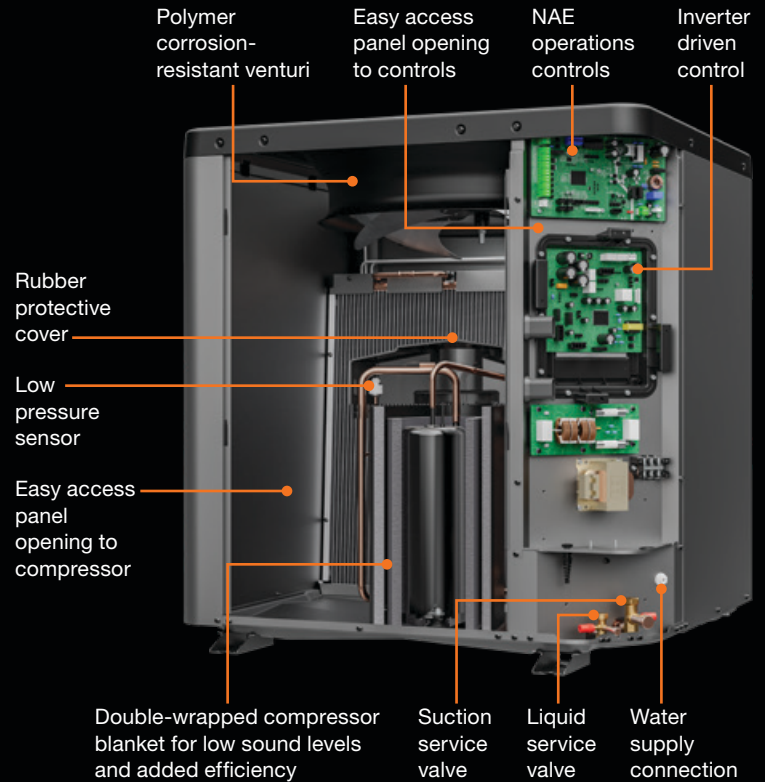
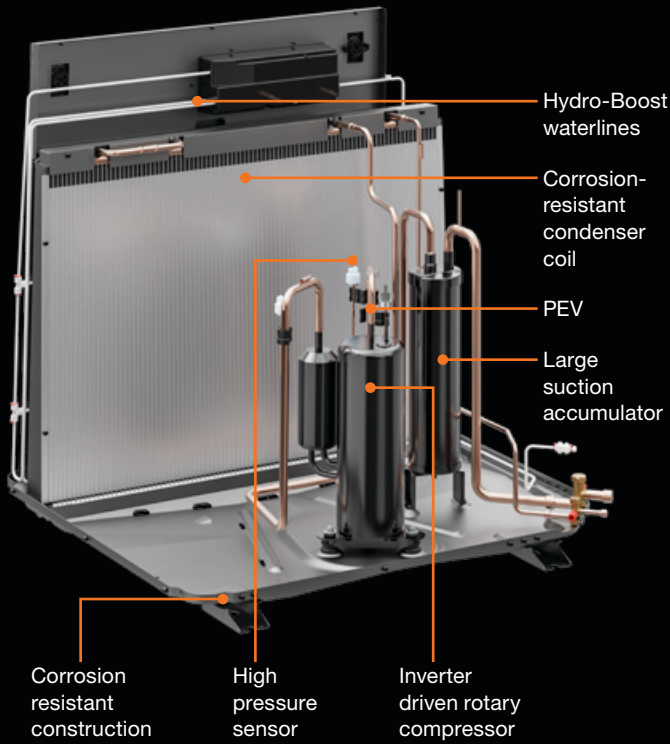


Multiple water line rails and nozzles distribute water spray evenly from the top to the bottom of the specially designed corrosion resistant condenser coil.



\*Note: Performance boost based on Navien internal testing. Not an industry-certified rating. Results vary by installation and conditions.

# NAE Hydro Air Conditioner, an inside look

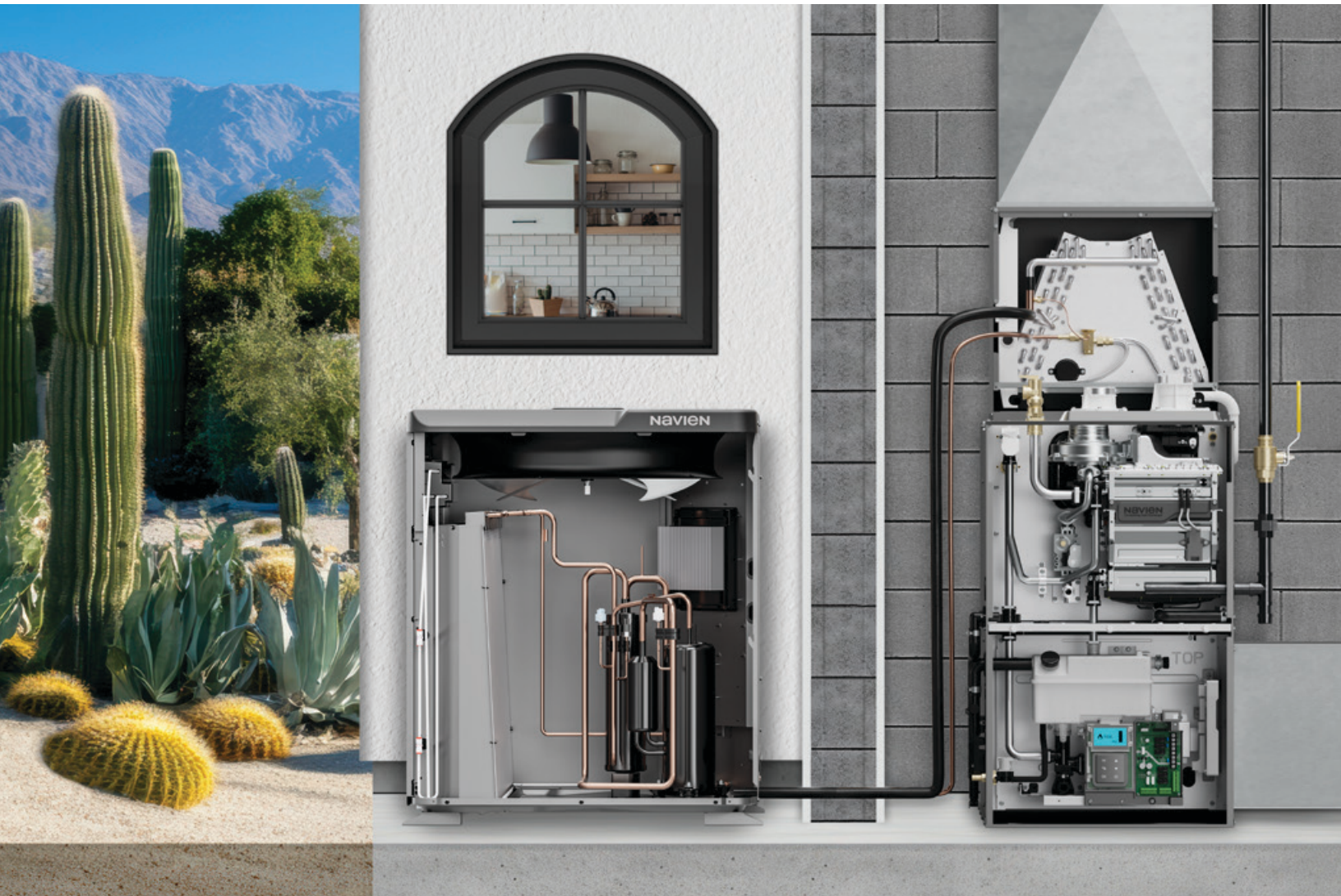


## Included installation accessories\*



\*Water connection accessories supplied for a typical installation. Needs may vary depending on your specific installation.

NAE Hydro AC is a perfect HVAC match with the NAM Cased Coil and NPF Hydro-furnace



## Advanced capacity matching technology



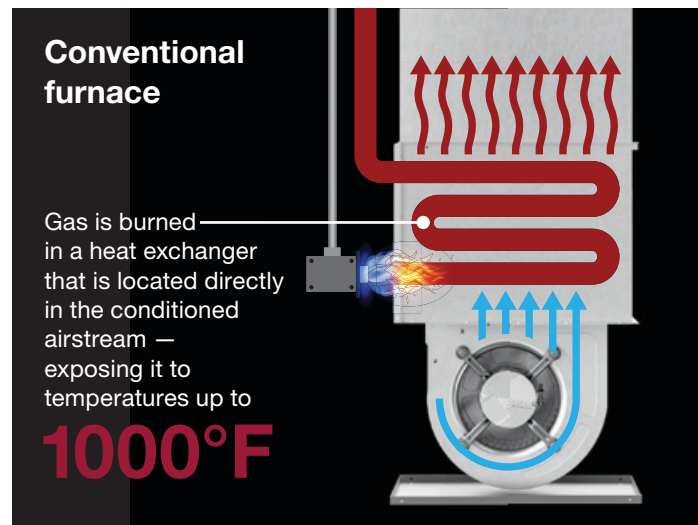
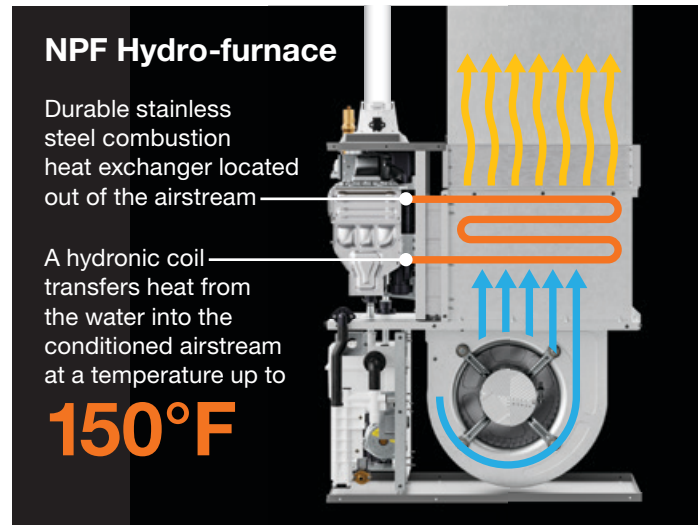
The NAE inverter driven compressor allows the system capacity to be dynamically adjusted by speeding up or slowing down the compressor and outdoor fan to precisely match the conditioned space comfort requirements. Also, each unit can be fine-tuned for the ultimate indoor comfort environments for homes in arid climates like Arizona or humid climates in Florida.

# NPF Hydro-furnace: heating comfort redefined









-  High-efficiency eco-friendly forced-air heating system.
-  Quiet performance and advanced airflow control.
-  Stainless steel hydronic combustion heat exchanger.
-  Variable-capacity operation maximizes comfort & efficiency.
-  Ultra-low NOx, complies with SCAQMD Rule 1111.
-  Upflow, downflow and horizontal left models.

In conventional gas furnaces, the combustion heat exchanger is located in the conditioned airstream, exposing air to high temperatures that tend to dry the air out. The NPF is different, it heats water in a sealed compartment, isolated from the airstream. The heated water is then circulated through a hydronic heat exchanger that safely, gently and quietly transfers the heat to the air using a high efficiency variable speed blower with less impact on humidity levels.



## NAM Cased Coil



-  Multi-position for easy installation.
-  Thick foil-faced insulation for easy cleaning.
-  Built in refrigerant leak detection and mitigation control.
-  Can be installed with a gas or electric furnace.
-  Corrosion-resistant aluminum DX refrigerant coil.
-  Corrosion- and heat-resistant polymer drain pans.

The NAM Cased Coils are AHRI matched with NAE Hydro Air Conditioner units, NASV Air Handlers, and NPF Hydro-furnaces. The NAM is provided in traditional widths to match conventional furnaces in retrofit installations. A2L sensor and mitigation control included.

# NASV Series Air Handler



Multi-position for flexible installation.



Corrosion-resistant aluminum DX refrigerant coil.



Slide-out blower assembly for easy maintenance.



Variable speed and standard ECM versions.



5-20 kW field installed electric heat kits.





Corrosion- and heat-resistant polymer drain pans.

The NASV Air Handler includes ECM constant CFM blower and motor assembly, an aluminum DX coil with factory installed TXV, and an A2L sensor in a single package for efficient whole-house forced-air heating and cooling throughout a structure's ductwork.





## NASV Air Handler specifications

Items	Model Number			
NASV (VSD) Constant CFM	NASV24B	NASV36C	NASV48D	NASV59D
Nominal capacity	2 ton	3 ton	4 ton	5 ton
Dimensions W x H x D, in (mm)	17.5 x 43 x 21 (444 x 1092 x 533)	21 x 48 x 21 (533 x 1219 x 533)	24.5 x 58.8 x 21.75 (622 x 1494 x 552)	24.5 x 58.8 x 21.75 (622 x 1494 x 552)
Refrigerant	R-454B			
Tube material	Aluminum			
Tube type	Rifled			
Fin material	Aluminum			
Fin type	Lanced			
Certifications	 			






Navien reserves the right to change specifications at any time without prior notice. Please refer to [www.navieninc.com](http://www.navieninc.com) to verify you have the most current information.

## NAM Cased Coil specifications

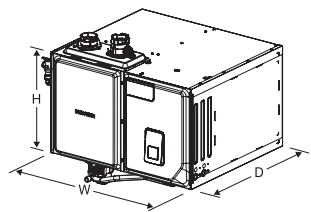
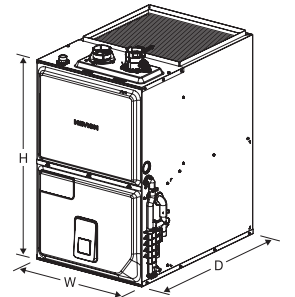
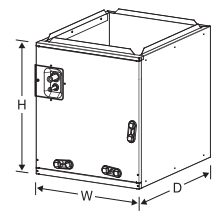
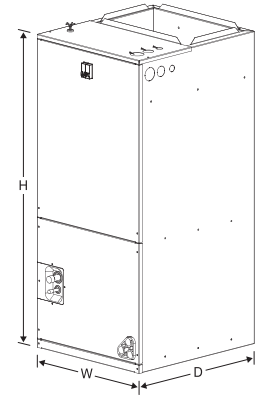
Items	Model Number					
	NAM24B	NAM36B	NAM36C	NAM48C	NAM59C	NAM59D
Capacity	2 ton	3 ton	3 ton	4 ton	5 ton	5 ton
Dimensions W x H x D, in (mm)	17.5 x 20 x 21 (445 x 508 x 533)	21 x 20 x 21 (533 x 508 x 533)	21 x 20 x 21 (533 x 508 x 533)	21 x 35 x 21 (533 x 889 x 533)	24.5 x 35 x 21 (622 x 889 x 533)	24.5 x 35 x 21 (622 x 889 x 533)
Refrigerant	R-454B					
Tube material	Aluminum					
Tube type	Rifled					
Fin material	Aluminum					
Fin type	Lanced					
Certifications	 					

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## NPF700 Hydro-furnace specifications

Installation Type	Upflow	NPF700-060U3BH	NPF700-080U3BH	NPF700-100U5CH
	Downflow	NPF700-060D3BH	NPF700-080D3BH	NPF700-100D5CH
Dimensions in (mm), WxDxH	17.5 x 31 x 34.5 (44.5 x 78.5 x 87.7)			21 x 31 x 34.5 (53.5 x 78.5 x 87.7)
Installation Type	Horizontal Left	NPF700-060H3BH	NPF700-080H3BH	NPF700-100H5CH
Dimensions in (mm), WxDxH	34.5 x 31 x 17.5 (87.7 x 78.5 x 44.5)			34.5 x 31 x 21 (87.7 x 78.5 x 53.5)
Supports air conditioner	1.5-3.0 tons			3.0-5.0 tons
Venting type		Forced draft direct vent or non-direct vent		
Maximum vent length	2"	70 ft.		
	3"	140 ft.		
Shipping weight lb (Kg)		145.0 (65.8)	167.6 (76.0)	145.0 (65.8)
Power supply		120V AC, 60 Hz		
Max current (A)		10.9	14.3	10.9
Circuit breaker amps (A)		15	20	15
Wire size (AWG)		14	12	14
Certifications		    		

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## NAE system matching performance data

Indoor System Type	Nominal Ton	ODU	IDU	Cased Coil	Cooling Capacity (95°F), BTU/h	EER2 <sup>1</sup>	SEER2 <sup>2</sup>
<b>Variable Speed Air Handler</b>	2T	NAE28V3622A1	NASV24B2T2A1		22,600	11.30	16.00
	3T	NAE28V3622A1	NASV36C2T2A1		31,400	10.60	16.50
	4T	NAE28V3622A1	NASV48D2T2A1		32,200	11.70	18.00
	4T	NAE28V6022A1	NASV48D2T2A1		43,000	12.00	18.00
	5T	NAE28V6022A1	NASV59D2T2A1		52,500	10.20	17.00
<b>NPF Furnace + Cased Coil</b>	2T	NAE28V3622A1	NPF700-060U3BH	NAM24B2TA1	23,000	10.80	16.50
	2T	NAE28V3622A1	NPF700-060H3BH	NAM24B2TA1	23,000	10.80	16.50
	2T	NAE28V3622A1	NPF700-060D5CH	NAM24B2TA1	23,000	11.00	15.80
	2T	NAE28V3622A1	NPF700-080U3BH	NAM24B2TA1	23,000	10.80	16.50
	2T	NAE28V3622A1	NPF700-080H3BH	NAM24B2TA1	23,000	10.80	16.50
	2T	NAE28V3622A1	NPF700-080D5CH	NAM24B2TA1	23,000	11.00	15.80
	3T	NAE28V3622A1	NPF700-060U3BH	NAM36B2TA1	31,400	10.30	16.00
	3T	NAE28V3622A1	NPF700-060H3BH	NAM36B2TA1	31,400	10.30	16.00
	3T	NAE28V3622A1	NPF700-060D5CH	NAM36B2TA1	31,000	9.80	16.00
	3T	NAE28V3622A1	NPF700-080U3BH	NAM36B2TA1	31,400	10.30	16.00
	3T	NAE28V3622A1	NPF700-080H3BH	NAM36B2TA1	31,400	10.30	16.00
	3T	NAE28V3622A1	NPF700-080D5CH	NAM36B2TA1	31,000	9.80	16.00
	3T	NAE28V3622A1	NPF700-060U5CH	NAM36C2TA1	31,400	10.00	15.50
	3T	NAE28V3622A1	NPF700-060H5CH	NAM36C2TA1	31,000	9.80	15.20
	3T	NAE28V3622A1	NPF700-060D5CH	NAM36C2TA1	31,000	9.80	16.00
	3T	NAE28V3622A1	NPF700-080U5CH	NAM36C2TA1	31,400	10.00	15.50
	3T	NAE28V3622A1	NPF700-080H5CH	NAM36C2TA1	31,000	9.80	15.20
	3T	NAE28V3622A1	NPF700-080D5CH	NAM36C2TA1	31,000	9.80	16.00
	3T	NAE28V3622A1	NPF700-100U5CH	NAM36C2TA1	31,400	10.30	16.50
	3T	NAE28V3622A1	NPF700-100H5CH	NAM36C2TA1	31,200	10.00	16.10
	3T	NAE28V3622A1	NPF700-100D5CH	NAM36C2TA1	31,000	9.80	15.60
	3T	NAE28V3622A1	NPF700-100U5CH	NAM48C2TA1	32,600	10.80	16.50
	3T	NAE28V3622A1	NPF700-100H5CH	NAM48C2TA1	31,800	10.50	16.20
	3T	NAE28V3622A1	NPF700-100D5CH	NAM48C2TA1	32,600	10.80	16.50
	3T	NAE28V3622A1	NPF700-100U5CH	NAM59C2TA1	32,600	10.80	16.50
	3T	NAE28V3622A1	NPF700-100H5CH	NAM59C2TA1	31,800	10.50	16.20
	3T	NAE28V3622A1	NPF700-100D5CH	NAM59C2TA1	32,600	10.80	16.50
	4T	NAE28V6022A1	NPF700-100U5CH	NAM48C2TA1	43,000	10.80	16.50
	4T	NAE28V6022A1	NPF700-100H5CH	NAM48C2TA1	42,000	10.50	16.00
	4T	NAE28V6022A1	NPF700-100D5CH	NAM48C2TA1	42,000	10.50	16.00
5T	NAE28V6022A1	NPF700-100U5CH	NAM59C2TA1	50,500	9.80	16.00	
5T	NAE28V6022A1	NPF700-100H5CH	NAM59C2TA1	50,000	9.80	15.50	
5T	NAE28V6022A1	NPF700-100D5CH	NAM59C2TA1	50,000	9.80	15.20	
5T	NAE28V6022A1	NPF700-100U5CH	NAM59D2TA1	50,500	9.80	15.50	
5T	NAE28V6022A1	NPF700-100H5CH	NAM59D2TA1	50,000	9.80	15.20	
5T	NAE28V6022A1	NPF700-100D5CH	NAM59D2TA1	50,500	9.80	15.50	

Performance data subject to change. Check [www.ahridirectory.org](http://www.ahridirectory.org) for latest information.

<sup>1</sup>Energy Efficiency Ratio; Certified per AHRI 210/240.

<sup>2</sup>Seasonal Energy Efficiency Ratio; Certified per AHRI 210/240.



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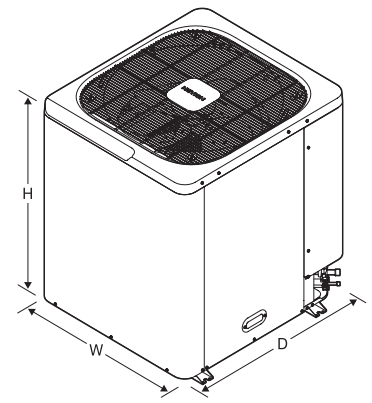
## Customer service and advanced training that is second to none



Besides supplying the most innovative and energy efficient systems for residential and commercial applications, Navien provides extensive field support, webinars and training events for builders, architects and contractors. Our full-time customer support network provides quick answers to installation and operational questions.

# NAE Condensing Hydro Air Conditioner specifications

Item	Model Number							
	NAE28V36				NAE28V60			
Cooling capacity	2 ton		3 ton		4 ton		5 ton	
Operating mode	Hydro-Boost (Navien internal)	Air (AHRI certified)	Hydro-Boost (Navien internal)	Air (AHRI certified)	Hydro-Boost (Navien internal)	Air (AHRI certified)	Hydro-Boost (Navien internal)	Air (AHRI certified)
Efficiency SEER2	Up to 27*	16	Up to 27*	16.5	Up to 30*	18	Up to 28*	17.5
Maximum water usage, LPM (GPM)	0.35 (0.09)	–	0.35 (0.09)	–	0.46 (0.12)	–	0.46 (0.12)	–
Sound rating level, dBA (max capacity)	63	73	63	73	67	75	67	75
Dimensions W x D x H, in (mm)	33.0 x 37.0 x 39.0 (840 x 940 x 990)				33.0 x 37.0 x 48.6 (840 x 940 x 1235)			
Compressor	Type Variable speed rotary							
	Maximum rated current (MRC)				30			
Fan motor	Rated current (RLA)							
	Maximum speed (rpm)				900			
	Motor HP							
Refrigerant	Type R-454B							
	Charge, lb (kg)				6.6 (3.0)			
Valve connect	Vapor line OD, in (mm)				7/8 (22.2)			
	Liquid line OD, in (mm)							
Water connect	Type Fitting (quick connect)							
	Size, in (mm)							
Drain, in (mm)								
Electrical data	V-PH-HZ 230-1-60							
	Ampacity (MCA)				38.5			
	Max. overcurrent protection, (A)				60			
	Min/max volts (V)							
Operating temperature	Cooling mode, °F (°C)							
	55–126 (12.7–52)							
Certifications	 							



\*Performance boost based on Navien internal testing. Not an industry-certified rating. Results vary by installation and conditions. Navien reserves the right to change specifications at any time without prior notice. Please refer to [www.navieninc.com](http://www.navieninc.com) to verify you have the most current information.

# NAE Condensing Hydro Air Conditioner sound ratings

Operating Conditions	Hydro	Air	Hydro	Air	Hydro	Air	Hydro	Air	
Nominal Capacity (BTU/h)	24K		36K		48K		60K		
Sound Rating Level (dBA)*	Low	55	60	55	61	56	59	57	63
	High	63	73	63	73	67	75	67	75

\*dBA measured in AHRI 210/240 low condition. Tested to AHRI270. Additional sound level information available at: [www.ensafe.com/occupational-noise-exposure-key-osh-a-provisions](http://www.ensafe.com/occupational-noise-exposure-key-osh-a-provisions).

# Warranty

NAE28 – Coverage Table for Labor and Parts Only		
Application	Residential <sup>2</sup>	Commercial
Parts <sup>1</sup>	Registered <sup>3</sup>	1 year
	Non-registered <sup>4</sup>	
Labor	90 days <sup>5</sup>	

<sup>1</sup>Refers to all internal functional components of the unit.  
<sup>2</sup>Applies only to a single-family dwelling that services one (1) living unit. Any property converted or utilized to service two or more separate dwelling units, regardless of the municipal address, is automatically classified as a Commercial application and is subject to the reduced warranty period.  
<sup>3</sup>Refers to coverages for units registered within 60 days of the Commencement date.  
<sup>4</sup>Refers to coverages for units registered 61 days or more after the Commencement Date; Secondary Owners.  
<sup>5</sup>One (1) exception to the 90-Day Labor Warranty will be allowed to provide coverage for one (1) repair or replacement of the Part(s) of the Water Supply Section when the Part(s) is provided through this warranty.  
 Navien's warranty (which may be changed without prior notice) is subject to the terms and conditions found at [www.navieninc.com/warranties](http://www.navieninc.com/warranties).

Accessories and components are subject to change or discontinuation without notice. Images are for illustrative purposes only and actual products may vary based on current vendor availability. Navien reserves the right to substitute equivalent accessories or components from alternative vendors as necessary. For the most up-to-date product information and current accessory availability, please visit [navieninc.com](http://navieninc.com) or contact your local Navien representative.

We are @Navieninc everywhere



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