

navien

Quick Facts

NHW-A Series



NHW-AE
Exterior

NHW-AI
Interior

Non-Condensing Tankless Water Heaters

Navien Certification Summary

Model	Product Approvals					Efficiency Ratings*
	CSA	NSF (Standard 5)	Low Lead (<0.25%)	Low NOx	AHRI Number	Uniform Energy Factor (UEF)
NHW700-160AI-NG	Yes	Yes	Yes	Yes	212617041	0.81
NHW700-160AI-LP	Yes	Yes	Yes	Yes	212617047	0.81
NHW700-180AI-NG	Yes	Yes	Yes	Yes	212617042	0.81
NHW700-180AI-LP	Yes	Yes	Yes	Yes	212617048	0.81
NHW700-199AI-NG	Yes	Yes	Yes	Yes	212617043	0.81
NHW700-199AI-LP	Yes	Yes	Yes	Yes	212617049	0.81
NHW700-160AE-NG	Yes	Yes	Yes	Yes	212617044	0.81
NHW700-160AE-LP	Yes	Yes	Yes	Yes	212617050	0.81
NHW700-180AE-NG	Yes	Yes	Yes	Yes	212617045	0.81
NHW700-180AE-LP	Yes	Yes	Yes	Yes	212617051	0.81
NHW700-199AE-NG	Yes	Yes	Yes	Yes	212617046	0.81
NHW700-199AE-LP	Yes	Yes	Yes	Yes	212617052	0.81

*Based on U.S. Department of Energy (DOE) test procedures.

**Based on a national average natural gas cost of \$1.09/therm, propane cost of \$2.41/gallon.

Temperature Rise (maximum output)

Temp Rise (°F)	Flow Rate (GPM)		
	NHW700-160	NHW700-180	NHW700-199
30	8.7	10.0	11.1
35	7.5	8.5	9.5
40	6.6	7.5	8.3
45	5.8	6.6	7.4
50	5.2	6.0	6.6
55	4.8	5.4	6.0
60	4.4	5.0	5.5
65	4.0	4.6	5.1
67	4.0	4.5	5.0
70	3.7	4.3	4.7
75	3.5	4.0	4.4
80	3.3	3.7	4.1
85	3.1	3.5	3.9
90	2.9	3.3	3.7
100*	2.6	3.0	3.3

*Max temperature setting is 140°F (60°C)

DHW Capacity

Models	Natural Gas/ Propane Gas
NHW700-160 AI/AE series	10,700-160,000 (BTU/H)
NHW700-180 AI/AE series	10,700-180,000 (BTU/H)
NHW700-199 AI/AE series	10,700-199,900 (BTU/H)

Warranty

Application		Labor	Parts	Heat Exchanger
Residential	Standard	1 year	5 years	15 years
	Uncontrolled recirculation ²	1 year	3 years	5 years
Commercial or Combi ¹	Standard	1 year	5 years	5 years
	Uncontrolled recirculation ²	1 year	3 years	3 years

¹Combi refers to a combination potable water and space heating application. Water heaters cannot be used in space heating only applications.

²Uncontrolled-Recirculation: External pumps configured to circulate continuously through the water heater are subject to the uncontrolled recirculation warranty terms. An aquastat is the minimum pump control requirement for DHW or storage tank recirculation in order to maintain the full controlled recirculation warranty.

For complete details please refer to the full warranty at NavienInc.com.

Product Features

COMFORTFLOW
BUILT-IN PUMP & BUFFER TANK

NAVITECH
STAINLESS STEEL
HX AND BURNER

**PREMIUM
INTEGRATED
CONTROL**

0.81 UEF

98°-140°
TEMP RANGE

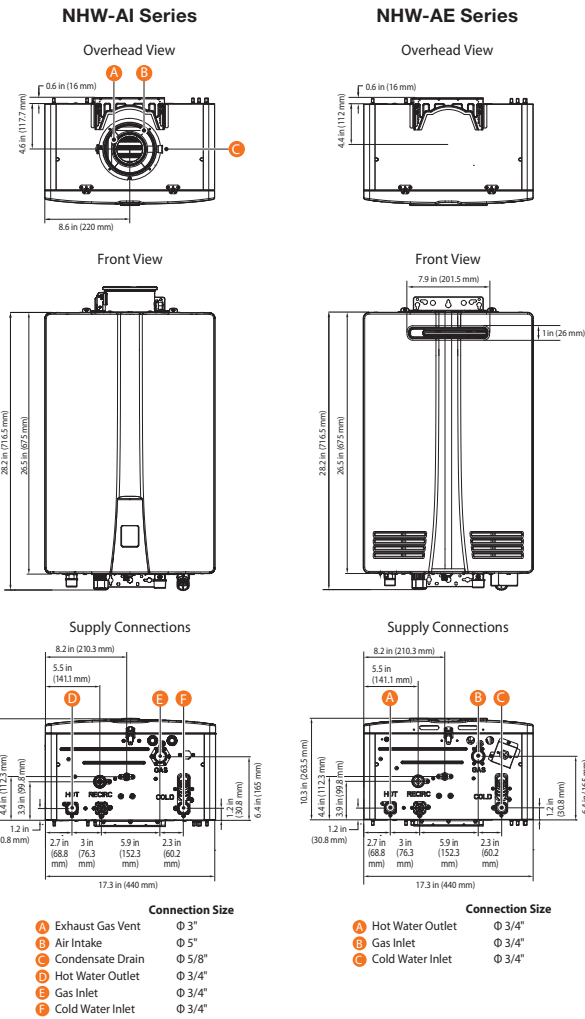
**UP TO
9.5 GPM**
@ 35° TEMP RISE

**RESIDENTIAL &
COMMERCIAL**

**CASCADE
CAPABLE**

Dimensions

Specifications



Item	NHW700 — Interior Model			NHW700 — Exterior Model		
	160AI	180AI	199AI	160AE	180AE	199AE
Heat capacity (input) natural gas/propane gas	10,700–160,000 (BTU/H)	10,700–180,000 (BTU/H)	10,700–199,900 (BTU/H)	10,700–160,000 (BTU/H)	10,700–180,000 (BTU/H)	10,700–199,900 (BTU/H)
Efficiency rating for NG & LP	0.81 UEF					
Flow rate (DHW)	35°F (18°C) temp rise	7.5 GPM (28 L/m)	8.5 GPM (32 L/m)	9.5 GPM (36 L/m)	7.5 GPM (28 L/m)	8.5 GPM (32 L/m)
	45°F (23°C) temp rise	5.8 GPM (22 L/m)	6.6 GPM (25 L/m)	7.4 GPM (28 L/m)	5.8 GPM (22 L/m)	6.6 GPM (25 L/m)
	67°F (36°C) temp rise	4.0 GPM (15 L/m)	4.6 GPM (17 L/m)	5.1 GPM (19 L/m)	4.0 GPM (15 L/m)	4.6 GPM (17 L/m)
Dimensions	17.3" W x 26.5" H x 10.3" D					
Weight (gross)	60 lbs (27 kg)	65 lbs (29 kg)	65 lbs (29 kg)	60 lbs (27 kg)	65 lbs (29 kg)	65 lbs (29 kg)
Installation type	Indoor wall-hung			Outdoor wall-hung		
Venting type	Forced draft direct vent (indoor only)					
Ignition type	Electronic ignition					
Water pressure	15–150 PSI					
Natural gas supply pressure (from source)	3.5" WC–10.5" WC					
Propane gas supply pressure (from source)	8" WC–13" WC					
Natural gas manifold pressure (max-min)	2.8" WC, 0.7" WC	2.3" WC, 0.7" WC	2.8" WC, 0.7" WC	3.2" WC, 0.8" WC	2.6" WC, 0.8" WC	3.2" WC, 0.8" WC
Propane gas manifold pressure (max-min)	5.8" WC, 1.3" WC	4.5" WC, 1.3" WC	5.4" WC, 1.3" WC	6.1" WC, 1.4" WC	4.9" WC, 1.3" WC	6.0" WC, 1.3" WC
Minimum flow rate	0.4 GPM (1.5 L/m), <0.01 GPM (0.04 L/min) with ComfortFlow**					
Connection sizes	3/4" NPT cold water inlet 3/4" NPT hot water outlet 3/4" NPT gas inlet					
Power supply	Main supply	120V AC, 60 Hz				
	Normal	95 W	100 W	115 W	99 W	81 W, 96 W
	Maximum power consumption	120 W (Max 2 A), 350 W (Max 4 A) with external pump connected				
	External pump	< 150 W, 1.5 A				
Materials	Fuse	5.0 A				
	Casing	Cold rolled carbon steel				
Safety devices	Heat exchangers	Stainless steel				
	Flame rod, APS, vent installation detector, ignition operation detector, water temperature high limit switch, power surge fuse					
Certifications						

*Available for NHW-A models configured in an optional ComfortFlow® recirculation mode. Energy consumption will increase when the system is configured for recirculation. Navien reserves the right to change specifications at any time without prior notice. Please refer to www.Navieninc.com to verify you have the most current information.

Accessories

NaviLink® Wi-Fi Control PBCM-AS-001 	NaviLink® Lite Wi-Fi Control (1 Unit) PBCM-AS-002 	Plumb Easy Valve Set (V2) 3/4" with Relief Valve GXXX002139 	Plumb Easy Valve Set 3/4" with Relief Valve (For Pipe Cover) 30012581A 	Cascade Cable GXXX000546 	External Pump Wire GXXX001319 	Recess Box (NHW700-AE Only) 30032303A
H2Air™ Kit AHU Optimizer PNBD-000001 	Remote Controller (Optional for NHW700-AE) 30022717B 	HotButton™ Control Kit PZZZ-00046 Wall Plate GXXX001427 Push Button GXXX001426 	NaviCirc™ Recirculation Valve for NHW700-A NaviCirc™ PFFW-SXX-001 NaviCirc™ Kit 30022965A 	PeakFlow® S Scale Prevention System GPWC110001AC001 	Pipe Cover NHW700-A Series 30032304A 	

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