Navien

# QuickFacts
## NHW-A Series

## Non-Condensing Tankless Water Heaters

**NHW-AE**
Exterior

**NHW-AI**
Interior

## 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 |

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

[2]Uncontrolled-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.

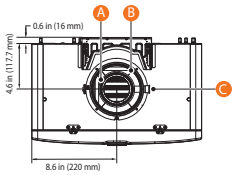
## Product Features

- 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

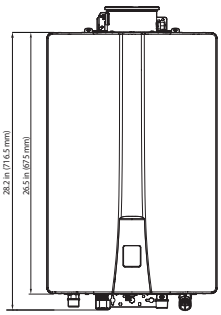
# Dimensions

**NHW-AI Series**

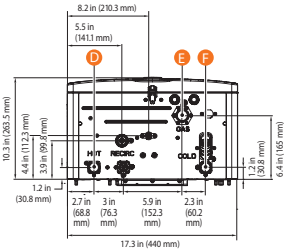
Overhead View




Front View



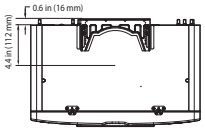

Supply Connections



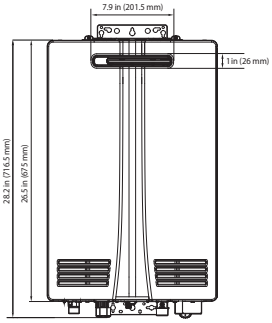

| Connection Size | |
|---|---|
| A Exhaust Gas Vent | Φ 3" |
| B Air Intake | Φ 5" |
| C Condensate Drain | Φ 5/8" |
| D Hot Water Outlet | Φ 3/4" |
| E Gas Inlet | Φ 3/4" |
| F Cold Water Inlet | Φ 3/4" |

**NHW-AE Series**

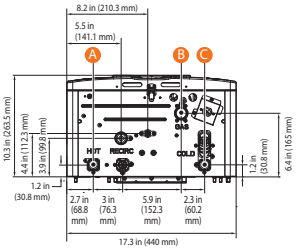
Overhead View




Front View




Supply Connections




| Connection Size | |
|---|---|
| A Hot Water Outlet | Φ 3/4" |
| B Gas Inlet | Φ 3/4" |
| C Cold Water Inlet | Φ 3/4" |

# 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) | 9.5 GPM (36 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) | 7.4 GPM (28 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) | 5.1 GPM (19 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 (1.5L/m), <0.01 GPM (0.04 L/min) with ComfortFlow®* | | | | | |
| Connection sizes | | 3/4" NPT cold water inlet<br>3/4" NPT hot water outlet<br>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 | | | | | |
| | Fuse | 5.0 A | | | | | |
| Materials | Casing | Cold rolled carbon steel | | | | | |
| | Heat exchangers | Stainless steel | | | | | |
| Safety devices | | Flame rod, APS, vent installation detector, ignition operation detector, water temperature high limit switch, power surge fuse | | | | | |

*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

We are @Navieninc everywhere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