



# Quick Facts

## NHW-S Series



### Non-Condensing Tankless Water Heaters

### Navien Certification Summary

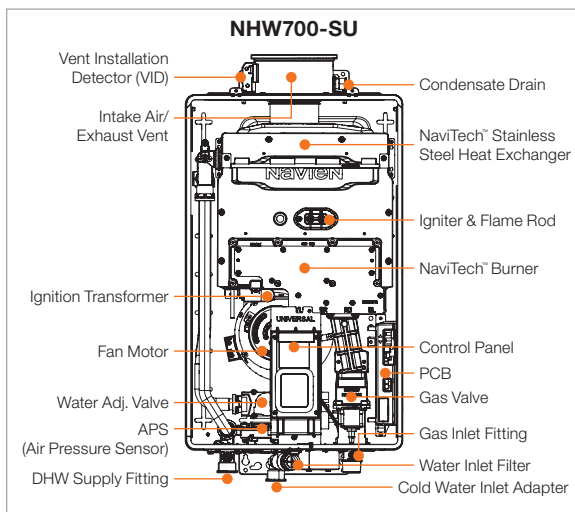
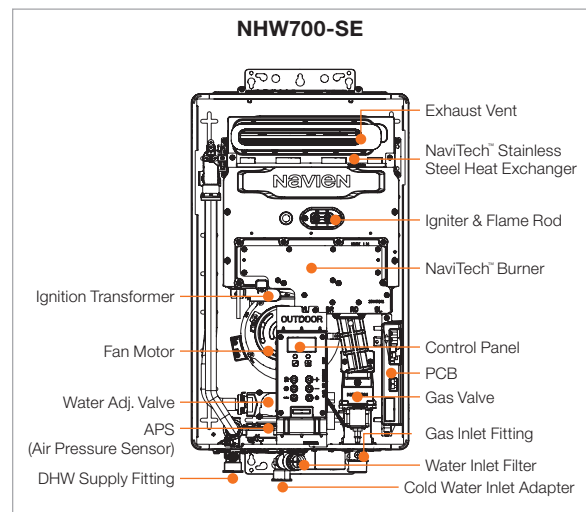
| Model           | Product Approvals |                  |                   |         |             | Efficiency Ratings*         |  |
|-----------------|-------------------|------------------|-------------------|---------|-------------|-----------------------------|--|
|                 | CSA               | NSF (Standard 5) | Low Lead (<0.25%) | Low NOx | AHRI Number | Uniform Energy Factor (UEF) |  |
| NHW700-160SU-NG | Yes               | Yes              | Yes               | Yes     | 214268876   | 0.81                        |  |
| NHW700-160SU-LP | Yes               | Yes              | Yes               | Yes     | 214390698   | 0.81                        |  |
| NHW700-180SU-NG | Yes               | Yes              | Yes               | Yes     | 214268877   | 0.81                        |  |
| NHW700-180SU-LP | Yes               | Yes              | Yes               | Yes     | 214390699   | 0.81                        |  |
| NHW700-199SU-NG | Yes               | Yes              | Yes               | Yes     | 214268878   | 0.81                        |  |
| NHW700-199SU-LP | Yes               | Yes              | Yes               | Yes     | 214390700   | 0.81                        |  |
| NHW700-160SE-NG | Yes               | Yes              | Yes               | Yes     | 214268879   | 0.81                        |  |
| NHW700-160SE-LP | Yes               | Yes              | Yes               | Yes     | 214390701   | 0.81                        |  |
| NHW700-180SE-NG | Yes               | Yes              | Yes               | Yes     | 214268880   | 0.81                        |  |
| NHW700-180SE-LP | Yes               | Yes              | Yes               | Yes     | 214390702   | 0.81                        |  |
| NHW700-199SE-NG | Yes               | Yes              | Yes               | Yes     | 214268881   | 0.81                        |  |
| NHW700-199SE-LP | Yes               | Yes              | Yes               | Yes     | 214390703   | 0.81                        |  |

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

### Temp 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)



### Product Features

**NAVITECH™**  
STAINLESS STEEL  
HX AND BURNER

**PREMIUM INTEGRATED CONTROLS**

**0.81 UEF**

**98°-140°**  
TEMP RANGE

**9.5 GPM**  
@ 35° TEMP RISE

**RESIDENTIAL & COMMERCIAL**

**CASCADE CAPABLE**

**OPTIONAL NaviLink™**  
WI-FI CONTROL

### DHW Capacity

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

### Warranty

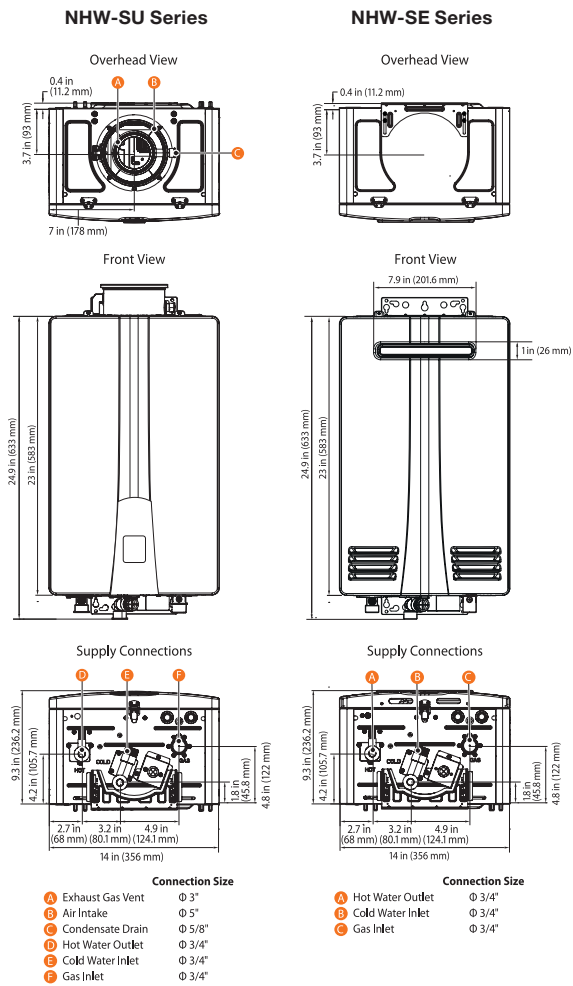
| Application                      | Labor                                   | Parts  | Heat Exchanger |
|----------------------------------|---|--------|----------------|
| Residential                      | Standard                                | 1 year | 5 years        |
|                                  | Uncontrolled recirculation <sup>2</sup> | 1 year | 3 years        |
| Commercial or Combi <sup>1</sup> | Standard                                | 1 year | 5 years        |
|                                  | Uncontrolled recirculation <sup>2</sup> | 1 year | 3 years        |

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

<sup>2</sup>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.

# Dimensions



# Specifications

| Item   | NHW700 – Universal Model   |   |                               | NHW700 – Exterior Model       |                               |                               |
|--|--|---|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
|  | 160SU-NG<br>160SU-LP   | 180SU-NG<br>180SU-LP  | 199SU-NG<br>199SU-LP          | 160SE-NG<br>160SE-LP          | 180SE-NG<br>180SE-LP          | 199SE-NG<br>199SE-LP          |
| Heat capacity (input)<br>natural gas/propane gas | 10,700–<br>160,000<br>(BTU/H)  | 10,700–<br>180,000<br>(BTU/H)                                 | 10,700–<br>199,900<br>(BTU/H) | 10,700–<br>160,000<br>(BTU/H) | 10,700–<br>180,000<br>(BTU/H) | 10,700–<br>199,900<br>(BTU/H) |
| Efficiency rating for NG & LP                    | 0.81 UEF   |   |                               |                               |                               |                               |
| Flow rate<br>(DHW)                               | 35°F (18°C)<br>temp rise   | 7.5 GPM<br>(28 L/m)   | 8.5 GPM<br>(32 L/m)           | 9.5 GPM<br>(36 L/m)           | 7.5 GPM<br>(28 L/m)           | 8.5 GPM<br>(32 L/m)           |
|  | 45°F (23°C)<br>temp rise   | 5.8 GPM<br>(22 L/m)   | 6.6 GPM<br>(25 L/m)           | 7.4 GPM<br>(28 L/m)           | 5.8 GPM<br>(22 L/m)           | 6.6 GPM<br>(25 L/m)           |
|  | 67°F (36°C)<br>temp rise   | 4.1 GPM<br>(16 L/m)   | 4.8 GPM<br>(18 L/m)           | 5.1 GPM<br>(19 L/m)           | 4.0 GPM<br>(15 L/m)           | 4.7 GPM<br>(18 L/m)           |
| Dimensions                                       | 14.0" W x 23.0" H x 9.3" D   |   |                               |                               |                               |                               |
| Weight (gross)                                   | 60 lbs<br>(27 kg)  | 65 lbs<br>(29 kg)   | 65 lbs<br>(29 kg)             | 60 lbs<br>(27 kg)             | 65 lbs<br>(29 kg)             | 65 lbs<br>(29 kg)             |
| Installation type                                | Indoor or outdoor wall-hung<br>(vent cap kit required for outdoor)   |   |                               | Outdoor wall-hung             |                               |                               |
| Venting type                                     | Forced draft direct vent (indoor only)   |   |                               |                               |                               |                               |
| Ignition type                                    | Electronic ignition  |   |                               |                               |                               |                               |
| Water pressure                                   | 15–150 PSI   |   |                               |                               |                               |                               |
| Natural gas supply<br>pressure (from source)     | 3.5" WC–10.5" WC   |   |                               |                               |                               |                               |
| Propane gas supply<br>pressure (from source)     | 8" WC–13" WC   |   |                               |                               |                               |                               |
| Natural gas manifold<br>pressure (max-min)       | 2.8" WC,<br>0.7" WC  | 2.3" WC,<br>0.7" WC   | 2.8" WC,<br>0.7" WC           | 3.2" WC,<br>0.8" WC           | 2.6" WC,<br>0.8" WC           | 3.2" WC,<br>0.8" WC           |
| Propane gas manifold<br>pressure (max-min)       | 5.8" WC,<br>1.3" WC  | 4.5" WC,<br>1.3" WC   | 5.4" WC,<br>1.3" WC           | 6.1" WC,<br>1.4" WC           | 4.9" WC,<br>1.3" WC           | 6.0" WC,<br>1.3" WC           |
| Minimum flow rate                                | 0.26 GPM (1.0 L/m)   |   |                               |                               |                               |                               |
| Activation flow rate                             | 0.4 GPM (1.5 L/m)  |   |                               |                               |                               |                               |
| 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                          |
|  | Maximum power<br>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                                      |                               |                               |                               |                               |
|  | Heat exchangers  | Stainless steel   |                               |                               |                               |                               |
| Safety devices                                   | Flame rod, APS, vent installation detector, ignition operation detector, water temperature high limit switch, power surge fuse |   |                               |                               |                               |                               |
| 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.

# Accessories

|  |   |   |  |  |  |
|--|---|---|--|--|--|
| <b>NaviLink™ Lite Wi-Fi Control</b><br>(1 unit)<br>PBCM-AS-002<br> | <b>Plumb Easy Valve Set (V2) 3/4" with Relief Valve</b><br>GXXX002139<br><b>For Pipe Cover</b><br>30012581A<br> | <b>Cascade Cable</b><br>GXXX000546<br><b>External Pump Wire</b><br>GXXX001319<br> | <b>PeakFlow™ S Scale Prevention System</b><br>GPWC110001AC001<br>  | <b>Outdoor Vent Cap Kit NHW700-SU Only</b><br>30023991A<br>  | <b>Recess Box NHW700-SE Only</b><br>(Lock not included)<br>30023550A<br> |
| <b>NaviLink™ Wi-Fi Control</b><br>PBCM-AS-001<br>                  | <b>H2Air™ Kit AHU Optimizer</b><br>PNBD-000001<br>  | <b>Remote Controller</b><br>(Optional for NHW700-SU)<br>30022717B<br>             | <b>HotButton™ Control Kit</b><br>PZZZ-00046<br><b>Wall Plate</b><br>GXXX001427<br><b>Push Button</b><br>GXXX001426<br> | <b>NaviCirc™ Recirculation Valve for NHW700-S</b><br><b>NaviCirc™</b><br>PFFW-SXX-001<br><b>NaviCirc™ Kit</b><br>30022965A<br> | <b>Pipe Cover NHW700-S Series</b><br>30024017A<br>                       |

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