

Hot Water Boiler

NFB-H Series Hot Water Boilers Technical Data Sheet

- Certified design according to ANSI Z21.13 CSA 4.9-2017 standards for indoor residential applications
- Gas Input Ranges: NFB-175H - 175,000 to 13,300 BTU/h NFB-200H - 199,900 to 13,300 BTU/h
- Turndown Ratio (TDR) of up to 15:1
- Patented Stainless Steel Fire Tube Heat Exchanger designed for low pressure loss and super-efficient operation
- Compatible with 2" PVC vent up to 65 ft* and 3" PVC vent up to 150 ft* (* with no elbows)
- Backlit Front Panel allows adjustment of hot water temperatures and boiler functions including Outdoor Reset Curve settings, pump operation, Integrated Low Water Safety Control, indirect DHW priority, and unit output capacity. Smart controls with Setup Wizard to simplify boiler start up"
- Low Voltage Terminal Strip contacts for thermostat or zone controller, indirect DHW tank thermostat, outdoor reset, 24 VAC device relay, air handler interrupt, and LWCO
- High Voltage Terminal Strip 120V contacts for use with boiler, system, and DHW pump wiring**
- Temperature Options two boiler operating setpoints: hydronic heating temperature and DHW (indirect) settings range from 77°F (25°C) up to 190°F (88°C)
- **Ready-Link Cascade Compatible** for up to 16 units with the use of Communication Cables #GXXX000546
- Common Vent Compatible allows cascade systems to use a single exhaust and/or intake pipe for **up to 8 units** with the use of the Common Vent Backflow Damper Collar Kit **#30014367B**-Includes Cascade Cable (GXXX000546), VID Jumper cable and common vent collar damper
- Compatible with Navienk. Wi-Fi Control (#PBCM-AS-001)
- **Outdoor Reset Sensor** (included) the unit controls will sense outdoor ambient temperatures and adjust the boiler operation for maximum comfort and efficiency
- External System Supply & Return Sensors (optional) additional controls provide optimum system performance
- AFUE Ratings
- NFB-175H/200H 95.0% (NG/LP)
- Compatible with **Natural Gas (NG)** and **Propane (LPG)***** (*** requires installation of included Field Conversion Kit by a qualified gas servicer)
- Certified by CSA, ASME, SCAQMD (Rule 1146.2 Type 1 Complies with 14 ng/J or 20 ppm NOx @ 3% 02)
- 15-Year Heat Exchanger and 5-Year Parts Warranty (Residential)
 10-Year Heat Exchanger and 3-Year Parts Warranty (Commercial)****
 (**** see Navien Limited Warranty)
- Optional accessories are available (see below)



Sleek Design - Compatible with 2" PVC Vent



INCLUDED Illuminated Front Panel with Advanced Hydronic Operation









Condensing Gas Hot Water Boiler

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A Air Intake

С

D

Е

G

Exhaust Gas Vent

Air Vent Connection

Heating Supply

Heating Return

Gas Connection

Condensate Outle

2 in

2 in

3/4 in

11/4 in

11/4 in

3/4 in

1/2 in

Space Heating Specifications

Navien Condensing Boiler Space Heating Ratings						Other Specifications		
Model Number ¹	Heating Input (MBH)		Heating Capacity ²	Net AHRI Rating Water ³	AFUE ² (%)	Water Pressure	Water Connection Size	Water Volume
	Min	Max	(MBH)	(MBH)	(%)	Pressure	(Supply, Return)	volume
NFB-175H	13.3	175	160	139	95	- 6-80 psi	1 ¼ in NPT	4.5 Gallon
NFB-200H		199.9	182	158	95			

NOTE 1. Ratings are the same for natural gas models converted to propane use.

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

3. The net AHRI water ratings shown are based on a piping and pickup allowance of 1.15. Consult Navien before selecting a boiler for installations having unusual piping and pickup requirements, such as intermittent system operation, extensive piping system, etc.

Specifications

ltem		NFB-175H	NFB-200H	
Dimensions		17.3 in (W) x 17.3 in (D) x 27.6 in (H)		
Boiler weight		121 lb (55 kg)		
Boiler weight w	rith water	148 lb (67 kg)		
Installation Typ	e	Indoor Wall-Hung		
Venting Type		Forced Draft Direct Vent		
Ignition		Electronic Ignition		
Natural Gas Sup	oply Pressure (from source)	3.5 in–10.5 in WC		
Propane Gas Supply Pressure (from source)		8.0 in–13.0 in WC		
Natural Gas Manifold Pressure		-0.03 to -0.70 in WC	-0.03 to -0.85 in WC	
Propane Gas Manifold Pressure		-0.02 to -0.68 in WC	-0.02 to -0.75 in WC	
Gas Connection Size		3/4 in NPT		
	Main Supply	120V AC, 60Hz		
Power Supply	Maximum Power Consumption	Less than 15 amperes		
Materials	Casing	Cold-rolled carbon steel		
Materials	Heat Exchangers	Stainless Steel		
	Exhaust	2 in or 3 in PVC, CPVC, approved polypropylene* 2 in or 3 in Special Gas Vent Type BH (Class III, A/B/C) 2 in or 3 in Stainless Steel		
Venting	Intake	2 in or 3 in PVC, CPVC, polypropylene 2 in or 3 in Special Gas Vent Type BH (Class III, A/B/C) 2 in or 3 in Stainless Steel, ABS		
	Vent Clearance	0 in to combustibles		
Safety Devices		Flame Rod, APS, Ignition Operation Detector Water Temperature High Limit Switch, Exhaust Temperature High Limit Sensor, Water Pressure Sensor, Vent Installation Detector (VID)		

Temperature Setting Range

ltem		Temperature Setting Range	Remarks	
Space Heating	Supply	77-190°F (25-88°C)	Actual supply and return temperatures vary depending on the selected outdoor reset curve.	
	Return	68–158°F (20-70°C)		

 $\$ *Navien reserves the right to change specifications at any time without prior notice