

Condensing Gas Hot Water Boiler

Commercial NFB-C Series Fire Tube Boilers

Technical Data Sheet

- Certified design according to the latest version of ANSI Z21.13 CSA 4.9 (latest version) standards for indoor commercial boiler applications
- Gas Input Ranges

NFB-301C - 301,000 to 20,000 BTUh **NFB-399C** - 399,000 to 26,000 BTUh

- Turndown Ratio (TDR) up to 15:1 highest in its class
- Patented Stainless Steel Fire Tube Heat Exchanger designed for durability, low pressure loss, and super-efficient operation at pressures up to 160 psi
- Compatible with 3" PVC vent up to 60 ft* and 4" PVC vent up to 150 ft*
 (* with no elbows)
- LCD Color 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
- 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**

 (** 2A max per pump)
- Temperature Options two boiler operating setpoints: hydronic heating temperature and DHW (indirect) settings range from 77°F (25°C) up to 194°F (90°C)
- Ready-Link Cascade Compatible for up to 32 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 4 units** with the use of the Common Vent Backflow Damper Collar Kit #30022799A
- 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
- Universal Temperature Sensor (optional) additional temperature controls provide optimum heating system performance #GXXX001769
- AHRI-Certified Thermal Efficiency Ratings NFB-301C/399C - 97.5% (NG/LPG)
- Compatible with Natural Gas (NG) and Propane (LPG)***
 (*** requires installation of included Field Conversion Kit by a qualified gas servicer)
- Certified by CSA, ASME H-Stamp, SCAQMD (Rule 1146.2 Type 1 Complies with 14 ng/J or 20 ppm NOx @ 3% O2)
- 15-Year Prorated Residential/10-Year Commercial Heat Exchanger Warranty****
 (***** see Navien Limited Warranty)
- Optional accessories are available (see below)



Wall Hung Design featuring Top and Bottom Water Connections -Compatible with 3" PVC Vent



Large Color LCD Front Panel with Advanced Hydronic Operation and Temperature and Status Display













Pressure Relief Valve (GXXX001931 - 75 PSI) (GXXX001946 - 150 PSI)



BMS Gateway Module (GXXX001932 - Modbus/BACnet) (GXXX001933 - LonWorks)



NaviLink_™ Wi-Fi Control (PBCM-AS-001)



Condensate Neutralizer (GXXX001324 - For use with up to 3 NFB-301C or 2 NFB-399C) (GXXX001325 - For use with up to 11 NFB-301C or 9 NFB-399C)



Zone Pump Controller (PFMZ-02P-001 - For 2 Zones) (PFMZ-03P-001 - For 3 Zones) (PFMZ-04P-001 - For 4 Zones) (PFMZ-06P-001 - For 6 Zones)



3" Common Vent Damper Kit (30022799A)

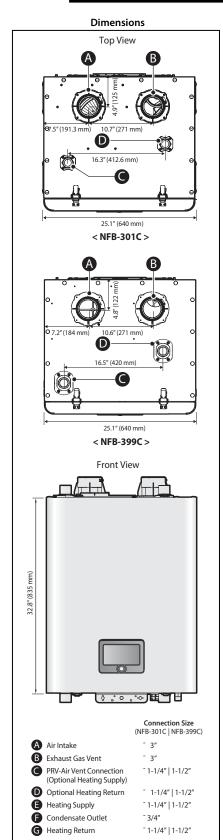


on Vent Universal Temperature r Kit Sensor (with clip) 99A) (GXXX001769)



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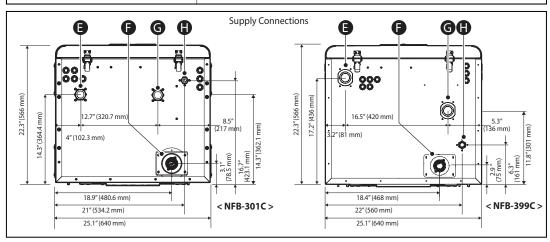
	N		nercial Condensi e Heating Rating	Other Specifications				
Model Number ¹	Heating Input (MBH)		Gross	Net AHRI	Thermal	Boiler Water	Matax	Water
	Min.	Max.	Output² (MBH)	Rating Water ³ (MBH)	Efficiency ² (%)	Content (Gallons)	Water Pressure	Connection Size (Supply, Return)
NFB-301C	20	301	293	255	97.5	7.6	12.160	1¼ in NPT
NFB-399C	26	399	389	338	97.5	9.6	12-160 psi	1½ in NPT

- Ratings are the same for Natural Gas models converted to Propane use.
- Based on U.S. Department of Energy (DOE) test procedures.

 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 systems, etc.

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Specifications						
Item		NFB-301C	NFB-399C			
Dimensions		25.1 in (W) × 22.3 in (D) × 32.8 in (H)				
Boiler Weight		243 lb (110 kg)	278 lb (126 kg)			
Boiler Weight with	Water	307 lb (139 kg)	371 lb (168 kg)			
Installation Type		Indoor Wall-Hung				
Venting Type		Forced Draft Direct Vent				
Ignition		Electronic Ignition				
Natural Gas Supply	Pressure (from source)	3.5 in–10.5 in WC				
Propane Gas Suppl	ly Pressure (from source)	8.0 in–13.5 in WC				
Natural Gas Manifo	old Pressure	-0.06 to -0.87 in WC	-0.03 to -1.85 in WC			
Propane Gas Manif	fold Pressure	-0.01 to -0.92 in WC	-0.01 to -0.90 in WC			
Gas Connection Siz	ze	³/₄ in NPT				
	Main Supply	120 V AC, 60 Hz				
Power Supply	Maximum Power Consumption	Less than 12 amperes				
Materials	Casing	Cold-rolled carbon steel				
Materiais	Heat Exchangers	Stainless Steel				
	Exhaust	3 in or 4 in PVC, CPVC, approved polypropylene, approved stainless steel 3 in or 4 in Special Gas Vent Type BH (Class III, A/B/C)				
Venting	Intake	3 in or 4 in PVC, CPVC, polypropylene, stainless steel 3 in or 4 in Special Gas Vent Type BH (Class III, A/B/C)				
	Vent Clearance	0 in to combustibles				
Safety Devices		Flame Rod, APS, LWCO Water Temperature High Limit Switch, Exhaust Temperature High Limit Sensor, Water Pressure Sensor				



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