

QuickFacts

NFB-C Series

High-Efficiency Condensing Fire Tube Commercial Boilers



Navien certification summary

	Model	
	NFB-301C	NFB-399C
Product Approvals		
CSA	Yes	Yes
SCAQMD 1146.2 (NOx, <20 ppm)	Yes	Yes
ASME	Yes "H" stamp	Yes "H" stamp
AHRI Number	201925233	201928625
Energy Star	Yes	Yes
Space Heating Ratings		
Thermal Efficiency %	97.5	97.5
Space Heating Gross Output, MBH	293	389

Gas input ranges

Model	Heating (MBH)	TDR
NFB-301C	20–301	15:1*
NFB-399C	26–399	15:1*

*15:1 single boiler; 10:1 individual boilers when cascaded.

Temperature setting range

Item	Temperature Setting Range	Remarks
Space Heating	Supply 77–194°F (25–90°C)	Actual supply and return temperatures vary depending on the selected outdoor reset curve.
	Return 68–158°F (20–70°C)	

Warranty

Type	Residential Applications	Commercial Applications
Heat Exchanger	15 years limited*	10 years
Parts	5 years	3 years
Labor	1 year	1 year

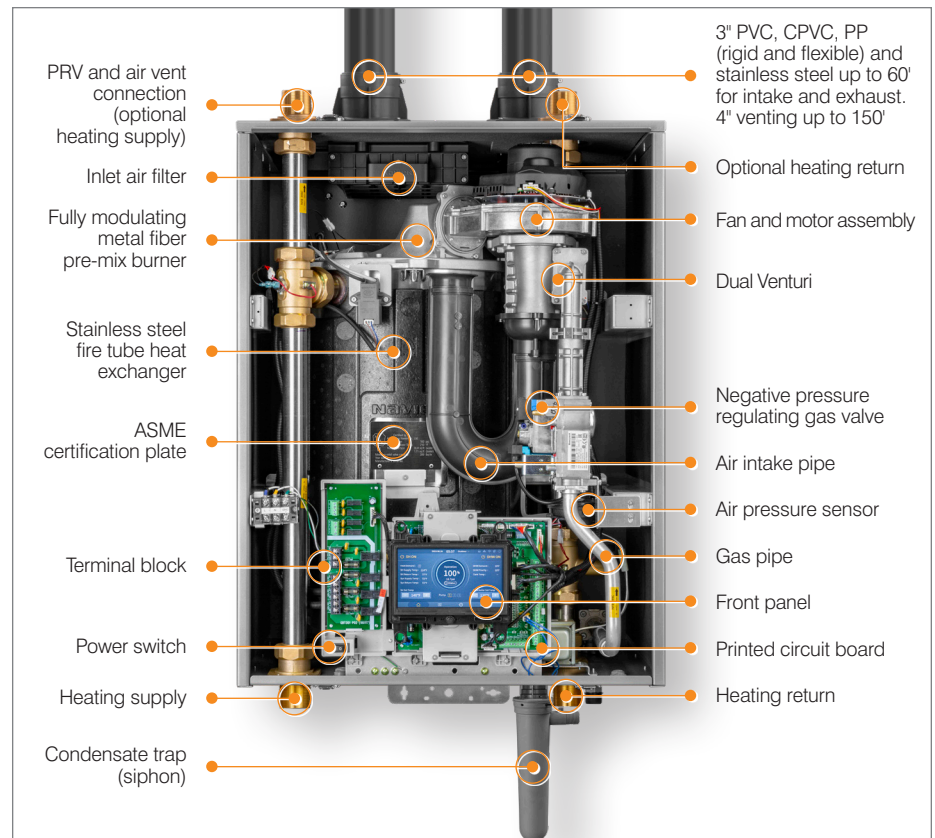
*12 years full plus 3 years prorated.

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

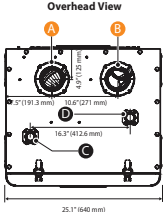
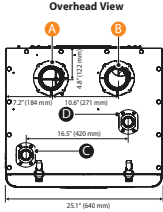
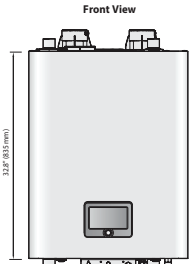
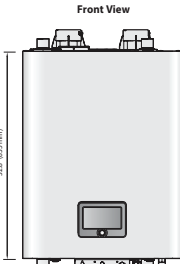
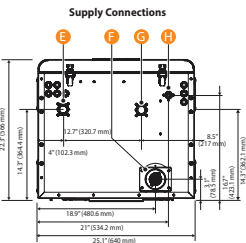
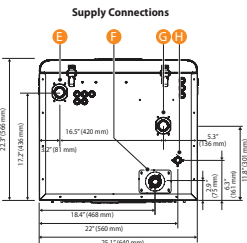
Product features

TDR UP TO 15:1	The sophisticated gas flow control system provides an industry leading turn down ratio which reduces energy waste and excessive boiler cycling.
TE 97.5%	Industry leading thermal efficiency to maximize operating cost savings and energy rebates.
USB PORT	Downloads data and boiler settings. Uploads software updates and multiple boiler settings.
7" TOUCH SCREEN	Intuitive user navigation for easy set-up, troubleshooting and operation.
TOP & BOTTOM PIPING	Easy piping access for floor or wall hang installations.
OPTIONAL NaviLink WI-FI CONTROL	This add-on accessory enables remote access to control temperatures, usage data and diagnostic notifications via smartphone or tablet.
ENERGY STAR APPROVED	Energy Star approved.


NFB-C: the inside story



Dimensions

NFB-301C	NFB-399C
 <p>Overhead View</p> <p>25.1" (640 mm)</p> <p>Connection Size NFB-301C</p> <ul style="list-style-type: none"> A Air Intake ϕ 3" B Exhaust Gas Vent ϕ 3" C PVB-Air Vent Connection (Optional Heating Supply) ϕ 1-1/4" D Optional Heating Return ϕ 1-1/4" 	 <p>Overhead View</p> <p>25.1" (640 mm)</p> <p>Connection Size NFB-399C</p> <ul style="list-style-type: none"> A Air Intake ϕ 3" B Exhaust Gas Vent ϕ 3" C PVB-Air Vent Connection (Optional Heating Supply) ϕ 1-1/2" D Optional Heating Return ϕ 1-1/2"
 <p>Front View</p> <p>32.8" (835 mm)</p>	 <p>Front View</p> <p>32.8" (835 mm)</p>
 <p>Supply Connections</p> <p>25.1" (640 mm)</p> <p>Connection Size NFB-301C</p> <ul style="list-style-type: none"> E Heating Supply ϕ 1-1/4" F Condensate Outlet ϕ 3/4" G Heating Return ϕ 1-1/4" H Gas Connection ϕ 3/4" 	 <p>Supply Connections</p> <p>25.1" (640 mm)</p> <p>Connection Size NFB-399C</p> <ul style="list-style-type: none"> E Heating Supply ϕ 1-1/2" F Condensate Outlet ϕ 3/4" G Heating Return ϕ 1-1/2" H Gas Connection ϕ 3/4"

Ratings & specifications

Navien Commercial Condensing Boiler Space Heating Ratings						Other Specifications		
Model Number ¹	Heating input (MBH)		Heating capacity ² (MBH)	Net AHR rating water ³ (MBH)	AFUE ² (%)	Boiler water content (gallons)	Water pressure (PSI)	Water connection size (supply, return)
	Min	Max						
NFB-301C	20	301	293	255	97.5	7.6	12-160	1-1/4 in NPT
NFB-399C	26	399	389	338	97.5	9.6		1-1/2 in NPT

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 systems, etc.

Item		Model	
		NFB-301C	NFB-399C
Dimensions		25.1" W x 22.3" D x 32.8" H	
Boiler weight	Empty	243 lb (110 kg)	278 lb (126 kg)
	With water	307 lb (139 kg)	371 lb (168 kg)
Installation type		Indoor wall-hung	
Venting type		Forced draft direct vent and non-direct vent (single pipe)	
Ignition		Electronic ignition	
Natural Gas supply pressure (from source)		3.5" to 10.5" WC	
Propane Gas supply pressure (from source)		8.0" to 13.5" WC	
Natural Gas manifold pressure		-0.06" to -0.87" WC	-0.03" to -1.85" WC
Propane Gas manifold pressure		-0.01" to -0.92" WC	-0.01" to -0.90" WC
Gas connection size		3/4" NPT	
Power supply	Main supply	120V AC, 60Hz	
	Maximum power consumption	Less than 12 amperes	
Materials	Casing	Cold-rolled carbon steel	
	Heat exchangers	Stainless steel	
Venting	Exhaust	3" or 4" PVC, CPVC, PP and SS 3" or 4" special gas vent type BH (Class III, A/B/C)	
	Intake	3" or 4" PVC, CPVC, PP and SS 3" or 4" special gas vent type BH (Class III, A/B/C)	
	Vent clearance	0" 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.
Please refer to www.NavienInc.com to verify you have the most current information.

Optional accessories

	Coming soon									
NaviLink™ Wi-Fi Control PBCM-AS-001 NaviLink™ Cable GXXX001659	Ready-Link® Commercial Rack System Base and add-on will include pipe support brackets. Base GFFM-KDIZUS-005 Add-on GFFM-KDIZUS-006	Pressure Relief Valves 75 PSI GXXX001931 150 PSI GXXX001946	Commercial Neutralizer Up to: 11 units NFB-301C; 9 units NFB-399C GXXX001325 Commercial Replacement Media GXXX001329	Light Commercial Neutralizer Up to: 3 units NFB-301C; 2 units NFB-399C GXXX001324 Light Commercial Replacement Media GXXX001328	Ready-Link® Communication Cable GXXX000546	Zone Pump Controller 2 Zones PFMZ-02P-001 3 Zones PFMZ-03P-001 4 Zones PFMZ-04P-001 6 Zones PFMZ-06P-001	Universal Temperature Sensor GXXX001769	NFB-C Common Vent Collar Kit Required for cascade/common vent installations. 30022799A Includes cascade cable (GXXX000546) and common vent collar damper.	Modbus/BACnet Gateway & Power Adaptor GXXX001932	LonWorks Gateway & Power Adaptor GXXX001933



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