



NCB700 Series

NEW NCB700 High-capacity Condensing Combi-boilers

Elevated efficiency and performance
in a compact condensing combi-boiler

Navien
Condensing Heat Exchanger

SH: OFF DHW: OFF
75 °F 75 °F
P 0.5 PSI



The NEW NCB700 Condensing Combi-boilers

So far ahead in so many ways

Navien, the leader in condensing wall-hung boilers*, keeps pushing innovation, technology, and advancements higher and higher with its 4th-generation of the NCB combi-boiler, the NCB700. This latest edition improves on efficiency while maintaining industry-leading DHW performance and turndown ratios.



96% AFUE high-efficiency condensing.



Dual inputs of up to 150,000 BTU/h for heating and 210,000 BTU/h for DHW.



Up to 5.4 GPM @ 70°F temperature rise for DHW.



Built-in Wi-Fi provides monitoring and over-the-air updates when paired with the NaviLink app.



Cascade capable with NPE-2 tankless water heaters for expanded DHW capacity.



Built-in zone control board that can directly connect and manage up to 4 zone pumps or up to 3 zone valves.



Turning on endless possibilities in hot water technology

NAVIEN ON learns the NCB700 system's DHW usage patterns to optimize recirculation and pre-heat scheduling. This maximizes energy efficiency, minimizes wastewater, and delivers endless hot water only when you want it.



Navien is #1 in gas condensing wall-hung boilers in US and Canada*

Navien has been recognized by BRG as the leading manufacturer of gas condensing tankless water heaters in the United States for 16 consecutive years, and as the leading producer of gas condensing wall-hung boilers in the US and Canada since 2012.

*According to BRG.

More advantages inside and out for homeowners and installers

New RAL adapter

Convenient, time-saving RAL assembly, which includes the pressure relief valve, air vent, and a fitting for an LWCO is standard with all the NCB700 Combi-boilers.



New enhanced fan and motor

The fan/motor has added anti-vibration to run quieter and is more powerful for longer vent lengths.

New dual venturi motor

The stronger stepper motor gives added performance and durability.

New dual heat exchanger design with added durability and performance

Our dual stainless steel heat exchangers feature an enhanced tube design for improved heat transfer.

Smaller design

The new compact NCB700 is now 2" shorter for more installation flexibility.

Lower profile DHW module

The redesign of the DHW module has reduced the height, giving the contractor easier access and serviceability.

User-friendly interface control panel with Setup Wizard software

This backlit controller with plain text display and click wheel is simple and intuitive.



Advanced connectivity

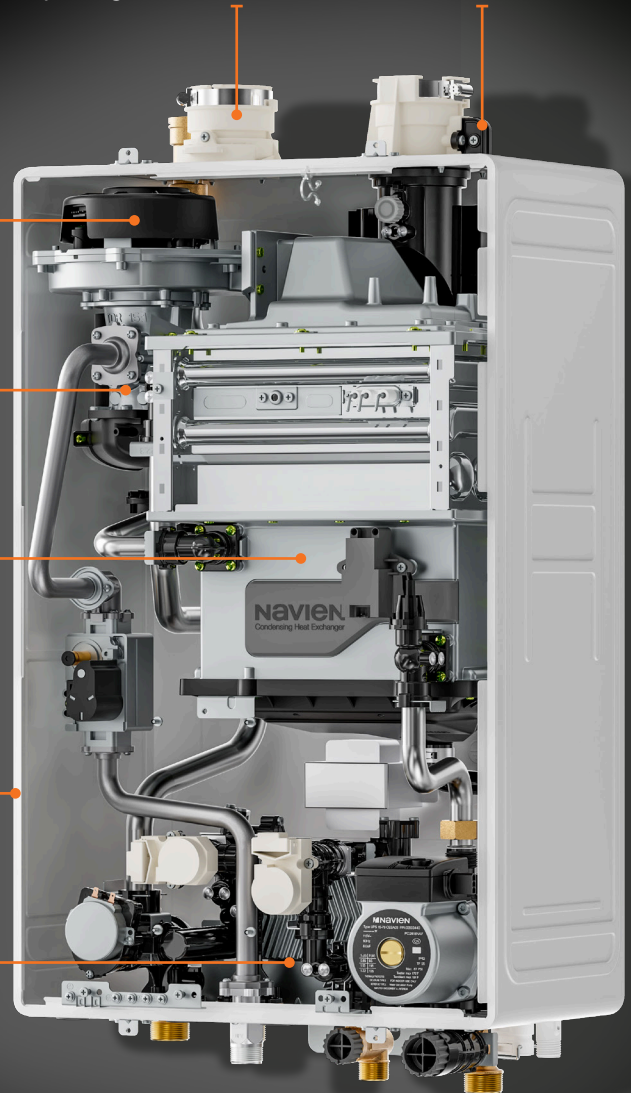
Wi-Fi modules are integrated into the control, allowing direct connection to a smartphone or tablet with the NaviLink App.

New external air intake filter

Check and clean intake vent filter screen of debris, without opening the cabinet.

Vent installation detector (VID)

Added safety during installation and service.



Optional primary manifold kit

This package includes the stainless steel manifold, manifold isolation valves with gaskets, DHW service valves, and DHW pressure relief valve.



Navien, the innovator in high-efficiency condensing technologies has done it again

The 4th-generation, NCB700, is more compact, more efficient, and maintains all the powerful performance.

With hydronic heating performance up to 150,000 BTU/h and industry leading 5.4 GPM at 70° rise DHW performance, homeowners can rely on NCB700 for comfort throughout the entire home.

The ultimate combi package for new, retrofit, small and large homes

The NCB700 combi-boiler is a good fit for any size residence. From a tiny apartment to a big city condo, or your large countryside farm house, we got you covered with 5 different size models.

Its compact, lightweight design is now even smaller with higher performance, and can occupy up to 80% less space than traditional floor standing boilers and tank water heaters.

Expanded DHW capability

If your larger home needs more domestic hot water, the NCB700 can be cascaded with up to 15 NPE-2 tankless water heaters.

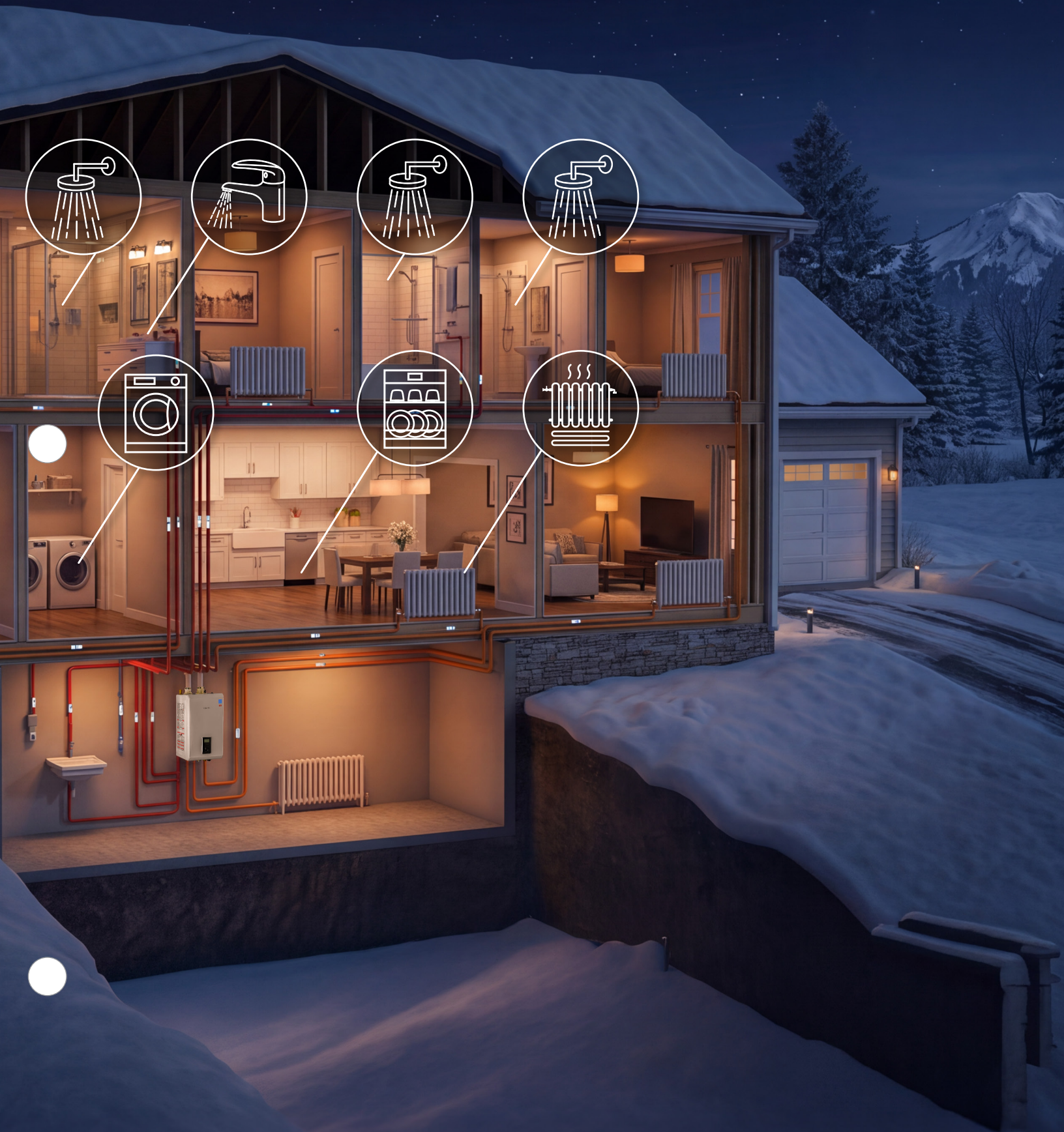


DHW up to 210,000 BTU/h
Heating up to 150,000 BTU/h

High-efficiency DHW and



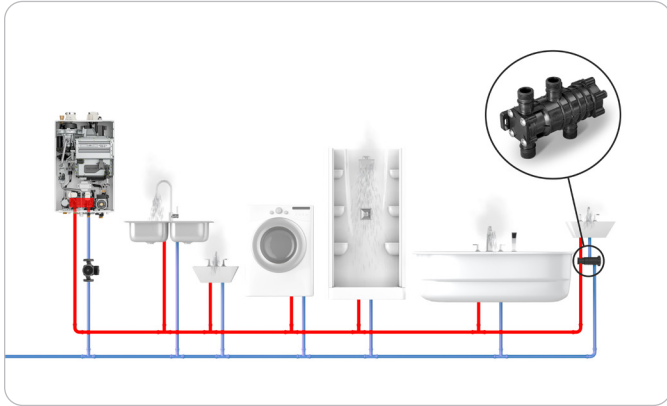
hydronic heating for the entire home in one compact combi





Optional recirculation valve for NCB700 Condensing Combi-boilers

NaviCirc™ is a simple plumbing device that uses the existing hot and cold water lines to reduce the wait time for hot water at the faucet without the need for a dedicated recirculation return line.

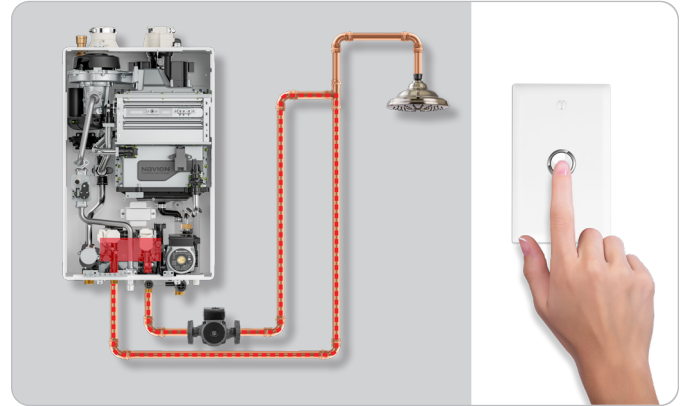


Part No. PFFW-SXX-001, NaviCirc Kit: 30022965A.
External recirc pump and check valves not included.



Optional direct hot water activation system

At the push of a button, the HotButton® hot water system activates the DHW heat exchanger to heat water in the supply lines to provide hot water only when it's needed. External recirc pump not included.



Part No. PZZZ-00046.



Optional magnetic boiler filtration system

- Powerful permanent magnet for removing higher levels of iron oxide, sludge and debris.
- Inlet and outlet ports for rapid in-line installation.
- Tool-free valve connection designed to prevent cross threading.
- Large canister and full flow valves minimize pressure drop and unrestricted flow.
- Low profile drain valve making installation and service easier.
- 360° rotation for installation flexibility.
- High performance seals providing higher protection against leaks.



Iron oxide sludge and debris collects in the system.

The NaviClean filter is placed into the system...

In minutes, the NaviClean filter traps the debris and water is clear...

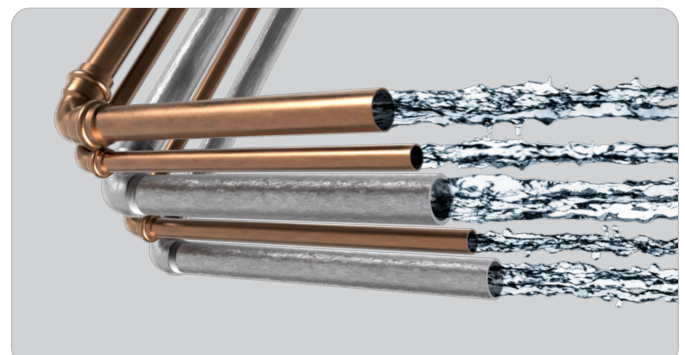
The NaviClean filter is removed for easy, rinse-down cleaning.



Anti-scaling water treatment systems

Navien PeakFlow® chemical-free anti-scale water treatment accessories are available in three models: PeakFlow S (Standard), PeakFlow A (Advanced), and PeakFlow C (Commercial)

PeakFlow products prevent scale formation on plumbing surfaces in appliances and water systems, and are an effective, environmentally-friendly alternative to water softeners that are critical for water system longevity.





Smaller, lighter, more powerful, easier to install

The NCB700 combi-boiler makes installation, setup, and service easier for any crew. With a streamlined design, smarter technology, and innovative features, get the job done faster and with confidence.

Simplified Setup and Service: User-friendly interface with built-in setup and service wizards.

Easier Installation: Optional primary manifold kit simplifies heating and DHW connections.

Smarter Connectivity: Wi-Fi remote monitoring via NaviLink app.

Faster Service: Easy access to major components.

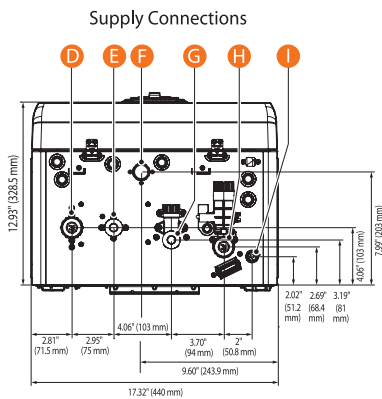
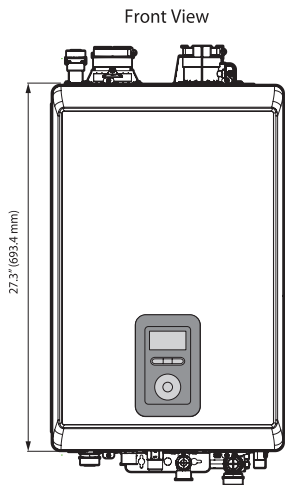
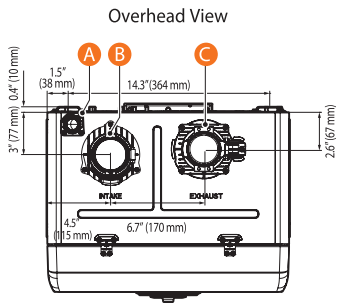
Easy Conversions: Standard field gas and high-altitude conversion kits.

Built to Last: Dual stainless steel heat exchangers deliver enhanced durability and efficiency.

Flexible Capacity: Five models to fit a range of homes, with expandable DHW capacity.

Support on the Job: Navien technical support is there when you need it.

Dimensions



Connection Size

- A RAL Adapter Connection -
- B Air Intake Φ 2"
- C Exhaust Gas Vent Φ 2"
- D Heating Supply Φ 1"
- E Domestic Hot Φ 3/4"
- F Gas Connection Φ 3/4"
- G Domestic Cold Φ 3/4"
- H Heating Return Φ 1"
- I Condensate Outlet Φ 1/2"

Ratings & Specifications

Navien Condensing Boiler Space Heating Ratings AHRI CERTIFIED					Other Specifications	
Model Number ¹	Heating Input (BTU/h)		Heating Capacity ² (BTU/h)	Net AHRI Rating Water ³ (BTU/h)	AFUE ² (%)	Water Pressure
	Min	Max				
NCB700-190/060	11,000	60,000	56,000	49,000	96.0	12-30 psi
NCB700-190/080	11,000	80,000	74,000	64,000		
NCB700-240/110	13,000	110,000	102,000	89,000		
NCB700-240/130	13,000	130,000	120,000	104,000		
NCB700-250/150	14,000	150,000	138,000	120,000		1" NPT

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

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

³The 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.

Domestic Hot Water Specifications						
Item	NCB700-190/060	NCB700-190/080	NCB700-240/110	NCB700-240/130	NCB700-250/150	
Input ratings	Min	10,700	10,700	13,300	13,300	14,000
	Max	160,000	160,000	199,900	199,900	210,000
Water pressure	15-150 psi					

Item		Specifications		
		NCB700-190/060 NCB700-190/080	NCB700-240/110 NCB700-240/130	NCB700-250/150
Dimensions		17.3" W x 27.3" H x 12.8" D		
Boiler weight	Empty	82 lbs (37 kg)	88 lbs (40 kg)	
	With water	86 lbs (39 kg)	93 lbs (42 kg)	
Installation type		Indoor wall-hung		
Venting type		Forced draft direct vent		
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		-0.02" WC to -0.39" WC	-0.02" WC to -0.16" WC	-0.02" WC to -0.18" WC
Propane gas manifold pressure		-0.04" WC to -0.42" WC	-0.02" WC to -0.20" WC	-0.02" WC to -0.22" WC
Gas connection size		3/4" NPT		
Power supply	Main supply	120V AC, 60Hz		
	Maximum power consumption	Up to 15 amperes		
Materials	Casing	Cold-rolled carbon steel		
	Heat exchangers	Stainless steel		
Venting	Exhaust	2" or 3" PVC, CPVC, approved polypropylene 2" or 3" special gas vent type BH (Class III, A/B/C), 2" or 3" stainless steel		
	Intake	2" or 3" PVC, CPVC, polypropylene 2" or 3" special gas vent type BH (Class III, A/B/C), 2" or 3" stainless steel		
	Vent clearance	0" 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		
Certifications				

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.

DHW Temp Rise	DHW Flow Rates GPM (L/m)			
	NCB700-190/060 NCB700-190/080	NCB700-240/110 NCB700-240/130	NCB700-250/150	
35°F (19°C)	8.2 (31.1)	10.4 (39.5)	10.8 (40.9)	
40°F (22°C)	7.2 (27.3)	9.0 (34.1)	9.5 (35.8)	
45°F (25°C)	6.4 (24.2)	7.9 (30.0)	8.4 (31.8)	
50°F (28°C)	5.8 (21.8)	7.2 (27.3)	7.6 (28.6)	
55°F (31°C)	5.2 (19.8)	6.6 (25.0)	6.9 (26.0)	
60°F (33°C)	4.8 (18.2)	6.0 (22.7)	6.3 (23.8)	
67°F (37°C)	4.3 (16.3)	5.4 (20.4)	5.6 (21.4)	
70°F (39°C)	4.1 (15.6)	5.1 (19.3)	5.4 (20.4)	
77°F (43°C)	3.7 (14.2)	4.7 (17.8)	4.9 (18.6)	
80°F (44°C)	3.6 (13.6)	4.5 (17.0)	4.7 (17.9)	
85°F (47°C)	3.4 (12.8)	4.2 (15.9)	4.4 (16.8)	
90°F (50°C)	3.2 (12.1)	4.0 (15.1)	4.2 (15.9)	
100°F (56°C)	2.9 (10.9)	3.6 (13.6)	3.8 (14.3)	

Warranty

Type	Residential Single Family Use Only
Heat exchanger	10 year
Parts*	5 year
Labor	1 year

*Includes DHW flat plate HX.

Accessories and components are subject to change or discontinuation without notice. Images are for illustrative purposes only and actual products may vary based on current vendor availability. Navien reserves the right to substitute equivalent accessories or components from alternative vendors as necessary. For the most up-to-date product information and current accessory availability, please visit navieninc.com or contact your local Navien representative.

To learn more about the NCB700 Combi-boilers:



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