

NCB Series Combination Boilers Specification Sheet

- Certified design according to ANSI Z21.13b-2012/CSA 4.9b-2012 standards for indoor residential applications
- Gas Input Ranges (Space Heating / DHW)

NCB-180 - 80,000 (150,000 for DHW) to 14,000 BTUh

NCB-210 - 100,000 (180,000 for DHW) to 18,000 BTUh

NCB-240 - 120,000 (199,900 for DHW) to 18,000 BTUh

• Domestic Hot Water Flow Rate Capacity (*based on 77°F temperature rise)

NCB-180 - 3.4 GPM

NCB-210 - 4.0 GPM

NCB-240 - 4.5 GPM

- Dual Primary and Secondary Stainless Steel Heat Exchangers for optimum efficiency and durability
- Stainless Steel Flat Plate Heat Exchanger* for DHW (* certified to IAPMO PS 92-2010 standards)
- Domestic Hot Water Priority
- Compatible with 2" PVC vent up to 60 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, heating setback, Integrated Low Water Safety Control, water fill pressure, and output capacity
- Internal Circulation Pump comes included with a primary circulation pump and air vent for added value and convenience
- Low Voltage Terminal Strip contacts for thermostat or zone controller, outdoor reset, 24 VAC device relay, air handler interrupt, and LWCO
- Temperature Options two boiler setpoints: hydronic heating temperature settings range from 77°F up to 194°F and from 86°F to 140°F for DHW temperatures
- Outdoor Reset Sensor (optional) when installed with an NCB Series model, the unit controls will sense outdoor ambient temperatures and adjust the boiler operation for maximum comfort and efficiency
- AFUE Ratings

NCB-180 - 93.5% (NG/LPG)

NCB-210 - 93.6% (NG/LPG)

NCB-240 - 93.3% (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, NSF/ANSI 372 for Low Lead (DHW only),
 SCAQMD (Rule 1146.2 Type 1 Complies with 14 ng/) or 20 ppm NOx @ 3% O2)
- 10-Year Heat Exchanger and 5-Year Parts Warranty****
 (**** see Navien Limited Residential Warranty)
- Optional accessories are available (see below)



Sleek Design - Compatible with 2" PVC Vent



INCLUDED Illuminated Front Panel with Advanced Hydronic and DHW Operation



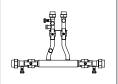












Quik-Install Manifold Kit (GXXX001178)



Plumb Easy Valve Set (BCSA0563 - 1" Standard) (UA0900002A - 3/4" Lead Free)



Condensate Neutralizer (UA1300001A)



Ready-Link Communication Cable (BCRA1129)



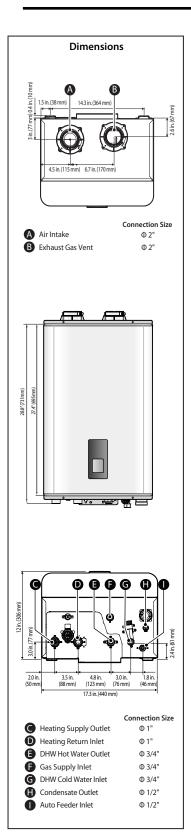
Outdoor Reset Sensor (NASS9EXOTS01)



Condensate Drain Hose (BH2206006A)



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Navien Combination Boiler Space Heating Ratings ALEX CERTIFIED						
Model Number ¹	Heating Input, MBH		Heating Capacity ² ,	Net AHRI Rating, Water ³ ,	AFUE²,	
	Min	Max	MBH	MBH	%	
NCB-180	14	80	74	64	93.5	
NCB-210	18	100	92	80	93.6	
NCB-240	18	120	109	95	93.3	

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

Specifications							
Item		NCB-180	NCB-210	NCB-240			
Caslanut	Space Heating	14,000-80,000 BTU/H	18,000-100,000 BTU/H	18,000-120,000 BTU/H			
Gas Input	Domestic Hot Water	14,000-150,000 BTU/H	18,000-180,000 BTU/H	18,000-199,900 BTU/H			
Flow Rate (DHW)	77°F (43°C) Temp Rise	3.4 GPM (12.9 L/m)	4.0 GPM (15.1 L/m)	4.5 GPM (17.0 L/m)			
Dimensions		17"(W) x 28"(H) x 12"(D)	17"(W) x 28"(H) x 12"(D)	17"(W) x 28"(H) x 12"(D)			
Weight		74 lbs (34kg)	84 lbs (38kg)	84 lbs (38kg)			
Installation Type		Indoor Wall-Hung					
Venting Type		Forced Draft Direct Vent					
Ignition		Electronic Ignition					
Water Pressure (Hydronic/DHW)		12-30 PSI / 15-150 PSI					
Natural Gas Supply Pressure (from source)		3.5"-10.5" WC					
Propane Gas Supply Pressure (from source)		8.0"-13.5" WC					
Natural Gas Manifold Pressure (min to max)		-0.07" WC to -0.66" WC	-0.05" WC to -0.36" WC	-0.06" WC to -1.2" WC			
Propane Gas Manifold Pressure (min to max)		-0.06" WC to -0.62" WC	-0.1" WC to -0.66" WC	-0.03" WC to -0.98" WC			
Minimum Flow Rate (DHW)		0.5 GPM (1.9 L/m)					
Connection Sizes	Heating Supply/Return	1" NPT					
	DHW Inlet/Outlet	3/4" NPT					
	Gas Inlet	3/4" NPT					
	Auto Feeder	1/2" NPT					
	Condensate Outlet	1/2" NPT					
	Main Supply	120V AC, 60Hz					
Power Supply	Maximum Power Consumption	200W (up to 2 amperes)					
Materials	Casing	Cold Rolled Carbon Steel					
	Heat Exchangers	Primary/Secondary Heat Exchanger: Stainless Steel DHW Heat Exchanger: Stainless Steel					
Venting	Exhaust	2" or 3" PVC, CPVC, Polypropylene 2" or 3" Special Gas Vent Type BH (Class II, A/B/C)					
	Intake	2" or 3" PVC, CPVC, Polypropylene 2" or 3" Special Gas Vent Type BH (Class II, A/B/C)					
	Vent Clearances	0" to Combustibles					
Safety Devices	Flame Rod, APS, Gas Valve Operation Detector, Ignition Operation Detector, Water Temperature High Limit Switch, Exhaust Temperature High Limit Sensor						