

QuickFacts

NCB-E Series Combi-boilers

Navien certification summary

	Model			
	NCB-150E	NCB-180E	NCB-210E	NCB-240E
Product Approvals				
CSA	Yes	Yes	Yes	Yes
SCAQMD 1146.2 (NOx, <20 ppm)	Yes	Yes	Yes	Yes
Low lead (<0.25%, DHW only)	Yes	Yes	Yes	Yes
ASME	Yes "H" stamp	Yes "H" stamp	Yes "H" stamp	Yes "H" stamp
AHRI Number	8580769	8580770	8580771	8580772
Energy Star	Yes	Yes	Yes	Yes
Space Heating Ratings				
AFUE, %	95.0	95.0	95.0	95.0
Heating Capacity, MBH	56	75	94	112

Gas input ranges

Model	Heating (BTU/H)	DHW (BTU/H)
NCB-150E	12,000–60,000	12,000–120,000
NCB-180E	14,000–80,000	14,000–150,000
NCB-210E	18,000–100,000	18,000–180,000
NCB-240E	18,000–120,000	18,000–199,900

Warranty

Type	Labor	Parts	Heat Exchanger
Residential single family use only	1 year	5 year*	10 year

*Includes DHW flat plate HX.

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

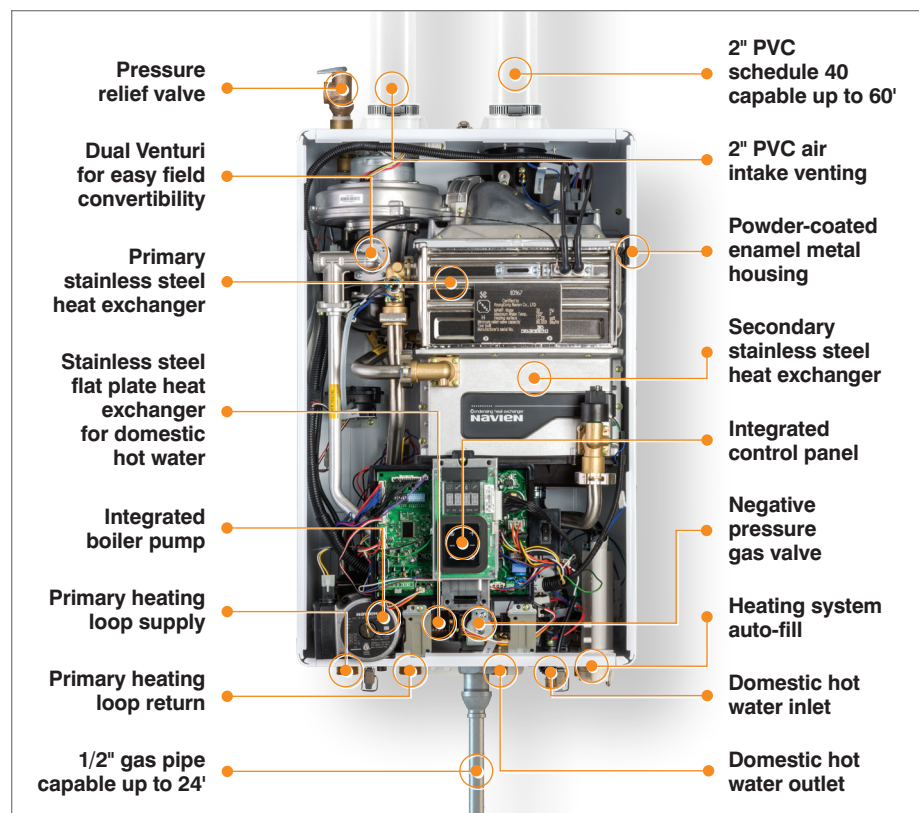
Applications

Air Handler	Hydronic Heating		
	Hydronic fan coils	Baseboard radiators	Radiant floors
For NCB/NCB-E technical drawings of specific installations and requirements, please visit NavienInc.com.			

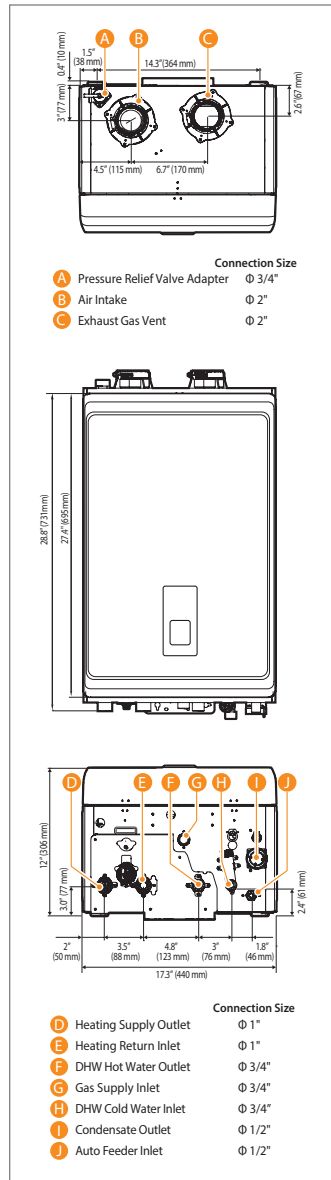
Product features

TDR UP TO 6:1 HTG 11:1 DHW	Reduces energy waste and excessive temperature control for DHW
AFUE 95.0%	Recognized as the most efficient in 2018 by Energy Star
2"–3" VENTING LONG DISTANCES	2" PVC venting up to 60' 3" PVC venting up to 150'
HTG & DHW 120k BTU/h 199k BTU/h	One unit does it all with two outputs
NG OR LP FIELD GAS CONVERTIBLE	All Navien products are field gas convertible
Most Efficient 2018 ENERGY STAR www.energystar.gov	

NCB-E: the inside story



Dimensions



Ratings & specifications

Navien Combination Boiler Space Heating Ratings						Other Specifications	
Model Number	Heating Input, MBH		Heating Capacity ² , MBH	Net AHRI Rating, Water ³ , MBH	AFUE ² , %	Water Pressure	Water Connection Size (Supply, Return)
	Min	Max					
NCB-150E	12	60	56	49	95.0	12-30 psi	1" NPT
NCB-180E	14	80	75	65	95.0		
NCB-210E	18	100	94	82	95.0		
NCB-240E	18	120	112	97	95.0		
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.							
Specifications							
Item		NCB-150E	NCB-180 / NCB-180E	NCB-210 / NCB-210E	NCB-240 / NCB-240E		
Gas input	Space heating	12,000–60,000 (BTU/H)	14,000–80,000 (BTU/H)	18,000–100,000 (BTU/H)	18,000–120,000 (BTU/H)		
	Domestic hot water	12,000–120,000 (BTU/H)	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	2.6 GPM (9.8 L/m)	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)	17"(W) x 28"(H) x 12"(D)		
Weight		66 lbs (30kg)	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/max)		-0.08" WC / -0.34" WC	-0.07" WC / -0.66" WC	-0.05" WC / -0.36" WC	-0.06" WC / -1.20" WC		
Propane gas manifold pressure (min/max)		-0.08" WC / -0.30" WC	-0.07" WC / -0.62" WC	-0.10" WC / -0.66" WC	-0.03" WC / -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					
Power supply	Main supply	120V AC, 60Hz					
	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, PP, SS 2" or 3" special gas vent type BH (Class II, A/B/C)					
	Intake	2" or 3" PVC, CPVC, PP, SS 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						

Navien reserves the right to change specifications at any time without prior notice.
 Please refer to NavienInc.com to verify you have the most current information.

Accessories

NaviLink™ Wi-Fi Control PBCM-AS-001	NCB Series Primary Manifold Kit (GFFM-MCOZUS-001)	Secondary Manifold Kit (GFFM-SKTZUS-001)	Plumb Easy Valve Set 1" Standard (30010950A) 3/4" Standard with Relief Valve (30009323A)	Residential Neutralizer (1 unit) (GXXX001322) Residential Replacement Media (GXXX001323)	Light Commercial Neutralizer (up to 6 units) (GXXX001324) Light Commercial Replacement Media (GXXX001328)	PeakFlowE Anti-Scale System (GXXX001725) PeakFlowE Replacement Media (GXXX001726) PeakFlow Replacement Media (GXXX001327)	Cascade 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)	Outdoor Sensor and wire (30012950A)	NaviClean™ Magnetic Boiler Filter (GXXX001727)



NCB-QF002-1806
 ©2018 Navien Inc.

Navien Inc.
 20 Goodyear, Irvine, CA 92618
 800-519-8794, NavienInc.com

