

CH Series Combination Boilers Specification Sheet

- Certified design according to ANSI Z21.13a-2010/CSA 4.3a-2010 standards for indoor residential applications
- Gas Input Ranges

CH-180-ASME - 150,000 to 17,000 BTUh **CH-210-ASME** - 175,000 to 20,000 BTUh **CH-240-ASME** - 199,000 to 20,000 BTUh

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

CH-180-ASME - 3.4 GPM **CH-210-ASME** - 4.0 GPM **CH-240-ASME** - 4.5 GPM

 Dual Primary and Secondary Stainless Steel Heat Exchangers for optimum efficiency and durability

- Stainless Steel Flat Plate Heat Exchanger for DHW with Preheat option
- Domestic Hot Water Priority
- Compatible with 3" PVC vent up to 100 ft* (*with no elbows)
- Backlit Remote Controller 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 for added value and convenience
- Low Voltage Terminal Strip contacts for thermostat or zone controller, outdoor reset, 24 VAC device relay, and air handler interrupt
- \bullet **Temperature Options** two boiler setpoints: hydronic heating temperature settings range from 105°F up to 185°F and from 86°F to 140°F for DHW temperatures
- Ready-Link Multi-System with NR/NP Models- CH Series models can be cascaded with NR/NP tankless water heaters for increased DHW production
- Outdoor Reset Sensor (optional) when installed with a CH Series model, the unit controls will sense outdoor ambient temperatures and adjust the boiler operation for maximum comfort and efficiency
- CA-AFUE Ratings

CH-180-ASME - 91% (NG) 92% (LPG)

CH-210-ASME - 91% (NG) 91% (LPG) **CH-240-ASME** - 91% (NG) 91% (LPG)

- Available models for use with both Natural Gas (NG) and Propane (LPG)
- Certified by **CSA, ASME, AB1953** CA Low Lead, **SCAQMD** (Rule 1146.2 Type 1 Complies with 14 ng/J or 20 ppm NOx @ 3% O2)
- Available models for use with both Natural Gas (NG) and Propane (LPG)
- $\bullet\ 10\mbox{-Year Parts Warranty}\ \mbox{(**see Navien Limited Warranty)}$
- Optional accessories are available (see below)



Sleek Design - Compatible with 3" PVC Vent



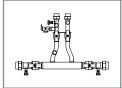
INCLUDED Backlit Remote Controller with Advanced Hydronic and DHW Operation











CH Quik-Install Manifold Kit (GXXX001178)



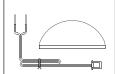
Plumb Easy Valve Set (BCSA0563 - 1" Standard) (UA0900001A - 3/4" Standard) (UA0900002A - 3/4" Lead Free)



Condensate Neutralizer (UA1300001A)



Ready-Link Communication Cable (BCRA1129)



Outdoor Reset Sensor (NASS9EXOTS01)

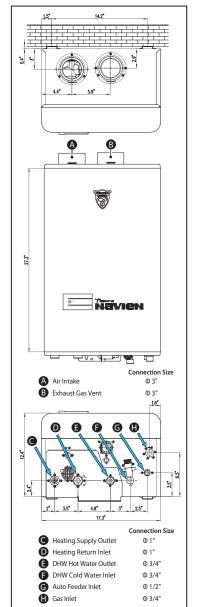


Condensate Drain Hose (BH2206006A)



CH Series Combination Boilers Specification Sheet

Dimensions



Specifications

Item		CH-180-ASME	CH-210-ASME	CH-240-ASME
Heat Capacity (Input)	Natural Gas	17,000-150,000 BTU/H	20,000-175,000 BTU/H	20,000-199,900 BTU/H
	Propane Gas	17,000-150,000 BTU/H	20,000-175,000 BTU/H	20,000-199,900 BTU/H
Flow Rate (DHW)	77°F(25°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 or Outdoor Wall-Hung		
Venting Type		Forced Draft Direct Vent		
Ignition		Electronic Ignition		
Water Pressure (Hydronic/DHW)		7-30 PSI / 15-150 PSI		
Natural Gas Supply Pressure (from source)		5.0"-10.5" WC		
Propane Gas Supply Pressure (from source)		8.0"-13.5" WC		
Natural Gas Manifold Pressure (min to max)		0.4" WC to 3.7" WC	0.4" WC to 3.0" WC	0.6" WC to 4.0" WC
Propane Gas Manifold Pressure (min to max)		0.8" WC to 7.3" WC	0.8" WC to 5.3" WC	1.0" WC to 7.0" WC
Minimum Flow Rate		0.5 GPM (1.9 L/m) without DHW Preheat		
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	3" PVC, CPVC, Polypropylene 3" Special Gas Vent Type BH (Class II, A/B/C)		
	Intake	3" PVC, CPVC, Polypropylene 3" Special Gas Vent Type BH (Class II, A/B/C)		
	Vent Clearances	0" to Combustibles		
Safety Devices	Flame Rod, APS, GPS, Ignition Operation Detector, Water Temperature High Limit Switch, Thermal Fuse, Exhaust Temperature High Limit Sensor, Power Surge Fuse			