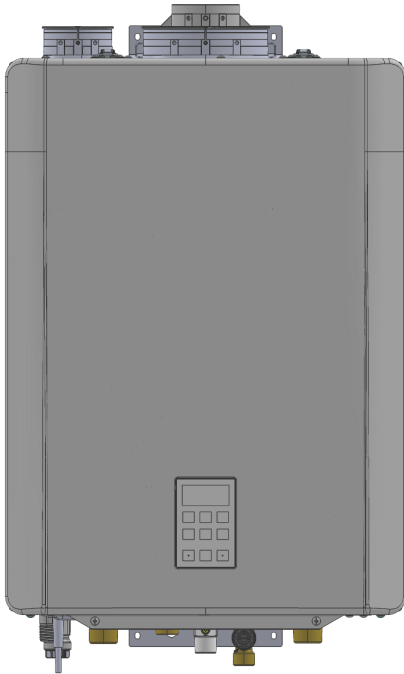




# I-Series Plus Combi Boiler

**Models: IP060160C, IP090099C, IP090160C, IP090199C, IP120199C, IP150199C**



CERTIFIED TO ANSI Z21.13 — CSA 4.9

## CONDENSING WALL-MOUNTED, GAS-FIRED COMBI BOILER (CENTRAL HEATING AND DOMESTIC HOT WATER)

<b>Models</b>	IP060160C, IP090099C, IP090160C, IP090199C, IP120199C, IP150199C
<b>AFUE</b>	Up to 96%
<b>Appliance</b>	Wall-Mounted, Gas-Fired Combi Boiler
<b>Installation</b>	Indoor
<b>Gas Types</b>	Natural Gas (or Propane with field conversion)
<b>Standard Features</b>	<ul style="list-style-type: none"> <li>• Factory Installed Pump</li> <li>• Outdoor Reset Control System with Sensor</li> <li>• Priority/Proportional DHW Standard</li> <li>• Built-in DHW Plate Heat Exchanger</li> <li>• Modulating Wire Mesh Burner</li> <li>• Stainless Steel Water Tube Condensing Heat Exchanger</li> <li>• Direct Vent Sealed Combustion</li> <li>• Approved for Room and Closet Installations</li> </ul>
<b>Included with Purchase</b>	<ul style="list-style-type: none"> <li>• Condensing Gas Boiler with Integrated Pump</li> <li>• Wall Mounting Bracket</li> <li>• CH Pressure Relief Valve (30 PSI)</li> <li>• Outdoor Temperature Sensor</li> <li>• Vent Top with Integrated 2 in. PVC or 3 in. x 5 in. Concentric Vent Adapter</li> <li>• Documentation: Installation and Operation Manual, User Manual</li> </ul>
<b>Optional Accessories</b>	Primary-Secondary Heating Kit (PN: 807000212), Condensate Neutralizer (PN: 804000074), ScaleCutter (PN: 103000038), ScaleCutter Refill Cartridge (PN: 103000039), and Isolation Valve Kit (PN: MIVK-T-LW)
<b>Venting Options</b>	<ul style="list-style-type: none"> <li>• Direct Vent (Concentric and Twin Pipe)</li> <li>• Room Air</li> <li>• Ubbink Flex Vent</li> <li>• Materials: Polypropylene, Stainless Steel, PVC, CPVC</li> </ul> <p>Refer to the Boiler Installation and Operation Manual for approved venting.</p>

Maximum Equivalent Vent Lengths:

Concentric, Twin Pipe, and Room Air:

Vent Sizes	<ul style="list-style-type: none"> <li>• 2 in. PVC</li> <li>• 2 in. (60 mm) PP</li> <li>• 2 in. x 4 in. Concentric</li> </ul>	<ul style="list-style-type: none"> <li>• 3 in. PVC</li> <li>• 3 in. (80 mm) PP</li> <li>• 3 in. x 5 in. Concentric</li> </ul>
Vent Lengths	75 ft (23 m)	160 ft (49 m)

Flex:

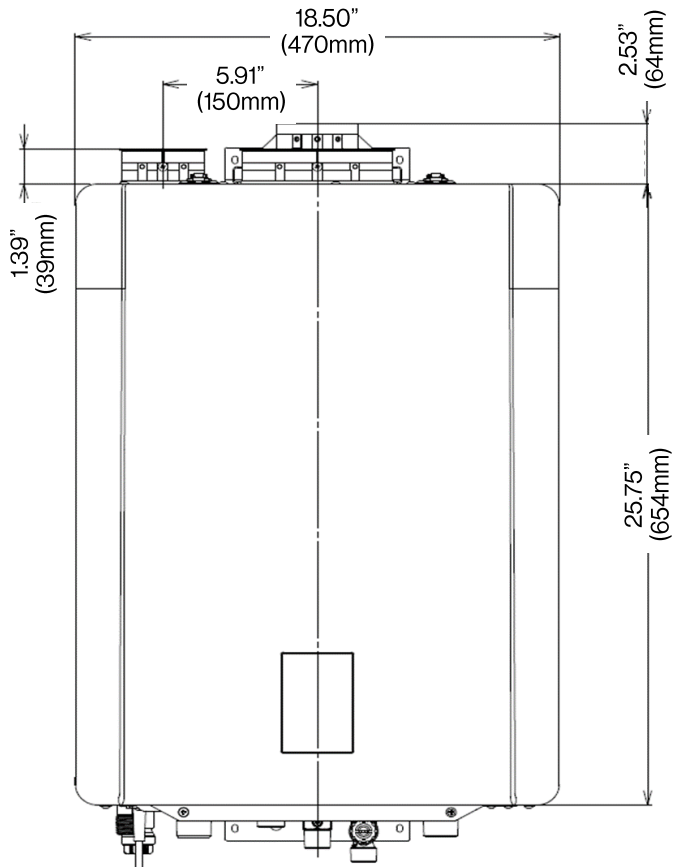
Vent Sizes	2 in. PP
Vent Lengths	50 ft (15 m)

For detailed venting information, refer to the Boiler Installation and Operation Manual.

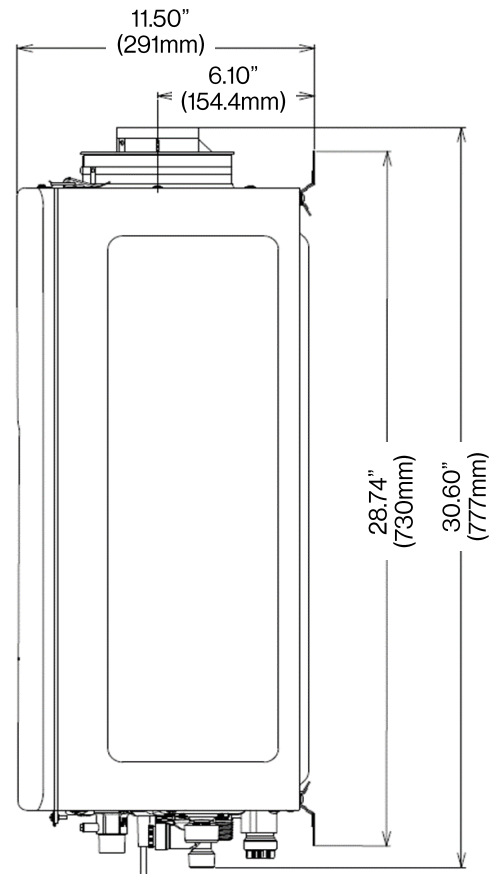
# DIMENSIONS

Measurements: in. (mm)

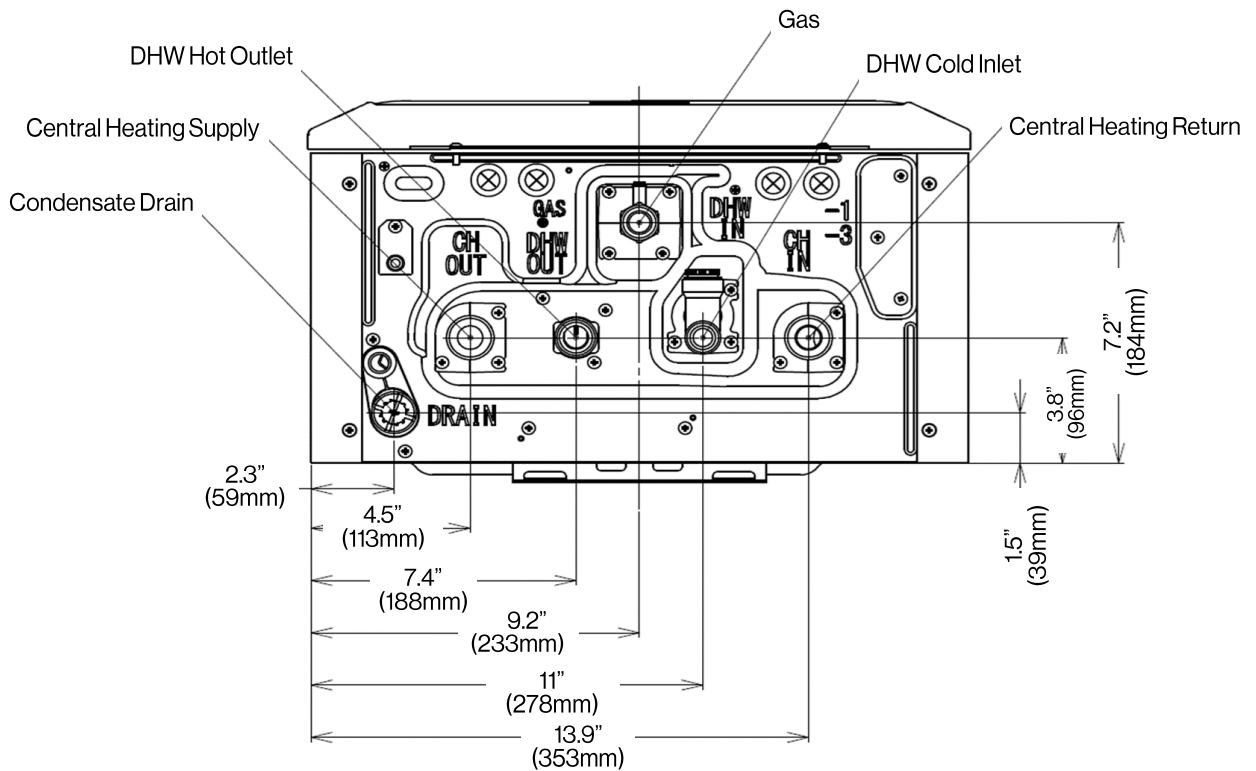
## FRONT



## SIDE



## BOTTOM

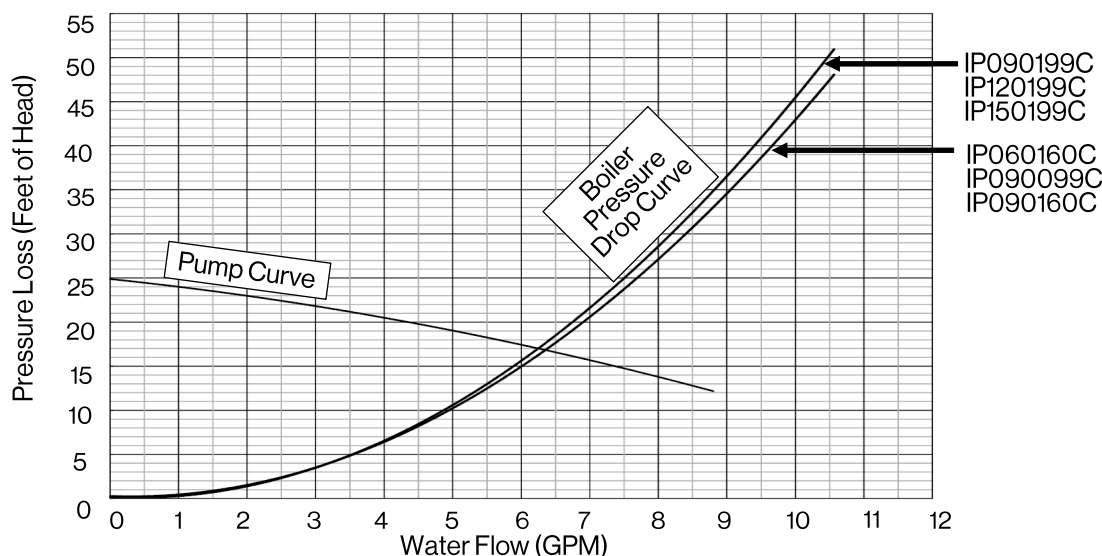


## TECHNICAL SPECIFICATIONS

Model		IP060160C	IP090099C	IP090160C	IP090199C	IP120199C	IP150199C
Dimensions - w, h, d	Unit	18.5 in. x 26.4 in. x 11.45 in. (471 mm x 671 mm x 290 mm)					
	Shipping	20.9 in. x 33.5 in x 14.6 in. (532 mm x 852 mm x 370 mm)					
Weight	Unit	73.0 lb (33.0 kg)			76.1 lb (34.5 kg)		
	Shipping	79.4 lb (36.1 kg)			82.7 lb (37.6 kg)		
Ignition System		Direct Electronic Ignition					
Heat Exchanger Surface Area		9.3 sq ft			10.9 sq ft		
Gas Consumption (Btu/hr)	Minimum	15,000					
	Maximum (CH)	60,000	90,000	90,000	90,000	120,000	150,000
	Maximum (DHW)	160,000	99,000	160,000	199,000	199,000	199,000
Heating Capacity (MBH)		56	83	83	83	110	138
DHW Specification	Minimum Activation Flow Rate	0.4 GPM (1.5 L/min)					
	Minimum Operation Flow Rate	0.26 GPM (1.0 L/min)					
	Maximum Flow Rate	7.9 GPM	5.3 GPM	7.9 GPM	9.8 GPM		
	Flow Rate at 70°F (39°C) rise	4.1 GPM			5.1 GPM		
Temperature Setting	CH	(Minimum - Maximum) 86°F - 180°F (30°C - 82°C)					
	DHW	(Minimum - Maximum) 98°F - 140°F (37°C - 60°C)					
Water Content	CH	0.75 gal			0.88 gal		
	DHW	0.05 gal					
Water Pressure	CH	Minimum: 13 PSI (90 kPa) Maximum: 45 PSI (310 kPa) Recommended: 17-26 PSI (117-180 kPa)					
	Pressure Relief Valve for CH (included with system)	30 PSI (207 kPa)					
	DHW	Minimum: 2 PSI (10 kPa) / Maximum: 150 PSI (1,034 kPa) (Recommend 10-80 PSI for Maximum Performance)					
Grundfos Pump Model		Grundfos UPS 15-78					
Sound Level	CH	43dB(A)					
	DHW	45dB(A)			47dB(A)		
Electrical Data	Normal (CH)	187W	165W	187W	214W		
	Standby	8 W					
	Max Current	14 Amps					
	Fuse	10 Amps x1, 4 Amps x5					
Gas Supply Pressure <sup>1</sup>	Natural Gas	3.5 in. - 10.5 in. W.C. (0.87 - 2.61 kPa)					
	Propane	8.0 in. - 13.5 in. W.C. (1.99 - 3.36 kPa)					
Electric Connections		AC 120 Volts, 60 Hz					
Turndown Ratio (TDR)		4.0:1	6.0:1	6.0:1	6.0:1	8.0:1	10.0:1
AFUE		95.5%	96.0%				
Certifications		ANSI Z21.13, CSA 4.9, ASME					

<sup>1</sup> The maximum gas supply pressure must not exceed the value specified by the manufacturer.

## PRESSURE DROP AND WATER FLOW CURVE



## FEATURES

### Faster, Easier Installation

- Compact & lightweight design
- Convenient mounting bracket
- NPT threads for connection points
- More flexible venting options
- Simplified parameters for commissioning and setup

### Clearances

- Top: 2 in. (51 mm)\*
- Bottom: 12 in. (305 mm)
- Front: 6 in. (152 mm)\*\*
- Back: 0 in.
- Sides: 2 in. (51 mm)
- Vent: 0 in.

\* 0 in. from vent components.  
6 in. (152 mm) for closet installations.

\*\* Clearance for servicing is 24 in. (610 mm) in front of boiler.

### Warranty

#### Residential:

- Heat Exchanger: 12 Years
- All Other Parts/Components: 5 Years
- Labor: 1 Year

#### Commercial:

- Heat Exchanger: 5 Years
- All Other Parts/Components: 5 Years
- Labor: 1 Year

### Important

If the boiler is to be installed in a system that has multiple zones, a Closely Spaced Tee/Manifold Kit (PN: 807000212) is recommended to be installed.

DHW = Domestic Hot Water  
CH = Central Heating  
PRV = Pressure Relief Valve

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