

# **Commander Series<sup>™</sup> Atmospheric Vent Commercial Gas Water Heater**



Photo is of UCG-100H-199-3N

FEATURING:





### The Commander Series<sup>™</sup> Models feature:

- ICON HD<sup>™</sup>—The proven design of an intelligent Honeywell<sup>®</sup> Integrated Control combines temperature control, diagnostic codes, and system functions and status into a single control with a digital LCD display.
  - Operation Mode—Simple, intuitive temperature adjustment up to 180°F/82°C. The user can easily select between Fahrenheit and Celsius.
  - Service Mode—The display has a "Service Mode" for changing the maximum setpoint and accessing information that may aid in the service of the water heater. These eight digitally displayed service screens can be easily cycled through by pressing the select button. The service screens include: max setpoint value, water temperature reading, flame current of pilot flame sensor, current temperature setpoint, F°/C° display change, temperature differential, software version, and error code history (up to ten previous error codes).
- Optional Air Intake Ducting—Optional ducting of PVC, CPVC, or ABS air intake. Can either be installed as a traditional atmospheric product requiring inside air for combustion or applications where outside air is preferred.
- Premix Power Burner—A self compensating negative pressure system automatically regulates fuel flow when a change in combustion air is detected. This provides for optimum combustion and efficiency. Automatically adjusts for altitudes up to 10,000 ft.
- Direct Spark Ignition—For improved operational dependability and durability.
- Integrated Exhaust System—New configuration and vent connector height allow for easy replacement of existing atmospheric vent water heaters.
- Sanitizing Capability—Complies with sanitation capabilities up to 180°F (82°C).
- Factory-Installed Hydrojet<sup>®</sup> Total Performance System—Sediment reducing device that also increases first hour delivery of hot water while minimizing temperature build-up in tank.
- Vitraglas<sup>®</sup> Lining—An exclusively engineered enamel formula that provides superior tank protection from the highly corrosive effects of hot water. This formula (Vitraglas<sup>®</sup>) is fused to the steel surface by firing at a temperature of over 1600°F (871°C).
- Insulation System—Non-CFC foam covers the sides and top of the tank, reducing heat loss. This results in less energy consumption, improved efficiencies, and jacket rigidity.
- Water Connections—Factory-installed true dielectric fittings extend water heater life and simplify water line connections.
- 1" (25mm) NPT Side Connections for Space Heating.
- Up to 82% Thermal Efficiency.
- Zero Inch Clearance to Combustibles Excluding UCG-80H-399 & UCG-100H-399.
- Hand Hole Cleanout.
- NSF Construction Available.
- T&P Relief Valve—Installed.
- Low Restrictive Brass Drain Valve—Durable tamper proof design.
- Ultra Low NOx Construction (14 ng/J NOx emissions)—Natural gas models only.
- CSA Certified Low Lead Content.
- ASME Code Available on All Models.

#### 3 or 5-Year Limited Tank Warranties / 1-Year Limited Warranty on Component Parts.



For more information on warranty, please visit www.bradfordwhite.com For products installed in USA, Canada. and Puerto Rico. Some states do not allow limitations on warranties. See complete copy of the warranty included with the heater.

MANUFACTURED UNDER ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 5,682,666; 7,634,976; 5,660,165; 5,954,492; 6,056,542; 6,935,280; 5,372,185; 5,485,879; 5,574,822; 7,971,560; 7,992,526; 6,664,821; 6,442,178; 7,334,419; 7,866,168; 7,270,087; 7,007,748; 5,596,952; 6,124,216; 7,699,026; 5,341,770; 7,337,517; 7,665,211; 7,665,210; 7,063,132; 7,063,132; 7,592,932; 7,900,589; 5,943,984; 8,082,888; 5,088,112; 7,621,238; 7,660,859; 5,761,379; 7,409,251; 5,271,18,146,772; 7,458,341; 2,262,174. OTHER U.S. AND FOREIGN PATENT APPLICATIONS PENDING. CURRENT CANADIAN PATENTS: 2,314,845; 2,504,824; 2,108,186; 2,143,031; 2,409,271; 2,548,958; 2,112,515; 2,476,685; 2,239,007; 2,092,105; 2,107,012. Vitraglas<sup>a</sup> and Hydrojet<sup>a</sup> are registered trademarks of Bradford White<sup>a</sup> Corporation.

# *Commander Series™ Atmospheric Vent Commercial Gas Water Heater*

## Commander Series<sup>™</sup> Models NATURAL GAS

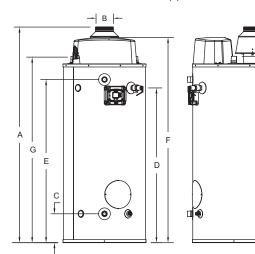
Meet or exceed ASHRAE 90.1b (current standard) C.E.C. Listed Up to 82% Thermal Efficiency

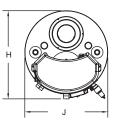
Model Number	Capa	-	Input Nat.	GPI at D	l Reco egree	very Rise*	A Floor to Top of	B Vent. Dia.	C Floor to Cold Water	D Floor to T&P	E Floor to Hot Water	F Floor to Top of	G Floor to Gas	H Depth	J Width	K Floor to Cold Water Inlet/Hot	Water Conn. Dia.	Gas Conn. Dia.	Relief Valve Open	Approx. Shipping Weight
	U.S. Gal.	lmp. Gal.	BTU/Hr. Input	40°F	100°F	140°F	Vent in.	in.	Inlet in.	Conn. in.	Outlet in.	Heater in.	Conn. in.	in.	in.	Water Outlet in.	in.	in.	in.	lbs.
UCG-80H-125-3N(A)	80	67	125,000	308	123	88	63	5	10	44	47	<b>61</b> <sup>1</sup> / <sub>4</sub>	55 <sup>3/4</sup>	30	281/4	54 <sup>3</sup> /4	<b>1</b> 1/2	3/4	3/4	535
UCG-80H-199-3N(A)	80	67	199,999	493	197	141	64 <sup>3</sup> /4	6	10	44	47	61 <sup>1</sup> /4	55 <sup>3</sup> /4	30	28 <sup>1</sup> /4	54 <sup>3</sup> /4	<b>1</b> 1/2	3/4	3/4	535
UCG-80H-270-3N(A)	80	67	270,000	665	266	190	64 <sup>3</sup> /4	6	10	44	47	<b>61</b> <sup>1</sup> / <sub>4</sub>	553/4	30	281/4	54 <sup>3</sup> /4	<b>1</b> 1/2	3/4	1	545
UCG-80H-399-3N(A)	80	67	399,999	960	384	274	68 <sup>3</sup> /4	8	10	44	47	61 <sup>1</sup> /4	55 <sup>3</sup> /4	30	28 <sup>1</sup> / <sub>4</sub>	54 <sup>3</sup> /4	<b>1</b> 1/2	3/4	1	545
UCG-100H-199-3N(A)	100	83	199,999	493	197	141	731/4	6	10	52 <sup>1/2</sup>	55 <sup>1/2</sup>	<b>69</b> 3/4	631/4	30	281/4	631/4	<b>1</b> 1/2	3/4	3/4	632
UCG-100H-270-3N(A)	100	83	270,000	665	266	190	73 <sup>1</sup> /4	6	10	52 <sup>1</sup> /2	55 <sup>1</sup> /2	69 <sup>3</sup> /4	63 <sup>1</sup> / <sub>4</sub>	30	28 <sup>1</sup> / <sub>4</sub>	63 <sup>1</sup> /4	<b>1</b> 1/2	3/4	1	632
UCG-100H-399-3N(A)	98	82	399,999	994	398	284	771/4	8	10	52 <sup>1/2</sup>	551/2	<b>69</b> <sup>3</sup> / <sub>4</sub>	631/4	30	281/4	631/4	<b>1</b> 1/2	3/4	1	657
	Capacity		La se d	I DI	Deee								0						-	
Model Number	Gapa	acity	Input Nat.		l Reco egree		A Floor to Top of	B Vent. Dia.	C Floor to Cold Water	D Floor to T&P	E Floor to Hot Water	F Floor to Top of	G Floor to Gas	H Depth	J Width	K Floor to Cold Water Inlet/Hot	Water Conn. Dia.	Gas Conn. Dia.	Relief Valve Open	Shipping
	Lite	-		at D		Rise*	Floor to	Vent.	Floor to Cold	Floor to	Floor to Hot	Floor to	Floor to		J Width mm.	Floor to Cold Water	Conn.	Conn.	Valve	Shipping
		ers	Nat. kW	at D	egree	Rise*	Floor to Top of Vent	Vent. Dia.	Floor to Cold Water Inlet	Floor to T&P Conn.	Floor to Hot Water Outlet	Floor to Top of Heater	Floor to Gas Conn.	Depth		Floor to Cold Water Inlet/Hot Water Outlet	Conn. Dia.	Conn. Dia.	Valve Open	Shipping Weight
Number	Lite	ers )3	Nat. kW Input	at D 22°C	egree 56°C	Rise* 78°C	Floor to Top of Vent mm.	Vent. Dia. mm.	Floor to Cold Water Inlet mm.	Floor to T&P Conn. mm.	Floor to Hot Water Outlet mm.	Floor to Top of Heater mm.	Floor to Gas Conn. mm.	Depth mm.	mm.	Floor to Cold Water Inlet/Hot Water Outlet mm.	Conn. Dia. mm.	Conn. Dia. mm.	Valve Open mm.	Shipping Weight kgs.
Number UCG-80H-125-3N(A)	Lite 30	ers )3 )3	Nat. kW Input	at D 22°C 1164	<b>56°C</b> 466	<b>Rise*</b> 78°C 333	Floor to Top of Vent mm. 1600	Vent. Dia. mm. 127	Floor to Cold Water Inlet mm. 254	Floor to T&P Conn. mm. 1118	Floor to Hot Water Outlet mm. 1194	Floor to Top of Heater mm. 1556	Floor to Gas Conn. mm. 1416	Depth mm. 762	<b>mm.</b> 718	Floor to Cold Water Inlet/Hot Water Outlet mm. 1391	Conn. Dia. mm. 38	Conn. Dia. mm. 19	Valve Open mm. 19	Shipping Weight kgs. 243
Number UCG-80H-125-3N(A) UCG-80H-199-3N(A)	Lite 30 30	ers )3 )3 )3	Nat. kW Input 36.6 58.6	at D 22°C 1164 1864	<b>56°C</b> 466 746	<b>78°C</b> 333 533	Floor to Top of Vent mm. 1600 1645	Vent. Dia. mm. 127 152	Floor to Cold Water Inlet mm. 254 254	Floor to T&P Conn. mm. 1118 1118	Floor to Hot Water Outlet mm. 1194 1194	Floor to Top of Heater mm. 1556 1556	Floor to Gas Conn. mm. 1416 1416	<b>Depth</b> <b>mm.</b> 762 762	<b>mm.</b> 718 718	Floor to Cold Water Inlet/Hot Water Outlet mm. 1391 1391	Conn. Dia. mm. 38 38	<b>Conn.</b> <b>Dia.</b> <b>mm.</b> 19 19	Valve Open mm. 19 19	Shipping Weight kgs. 243 243
Number UCG-80H-125-3N(A) UCG-80H-199-3N(A) UCG-80H-270-3N(A)	Lite 30 30 30	ers 03 03 03 03	Nat. kW Input 36.6 58.6 79.1	at D 22°C 1164 1864 2517	<b>56°C</b> 466 746 1007	<b>78°C</b> 333 533 719	Floor to Top of Vent mm. 1600 1645 1645	Vent. Dia. mm. 127 152 152	Floor to Cold Water Inlet mm. 254 254 254	Floor to T&P Conn. mm. 1118 1118 1118	Floor to Hot Water Outlet mm. 1194 1194 1194	Floor to Top of Heater mm. 1556 1556 1556	Floor to Gas Conn. mm. 1416 1416 1416	Depth mm. 762 762 762	<b>mm.</b> 718 718 718	Floor to Cold Water Inlet/Hot Water Outlet mm. 1391 1391 1391	Conn. Dia. mm. 38 38 38	<b>Conn.</b> <b>Dia.</b> <b>mm.</b> 19 19 19	Valve Open mm. 19 19 25	kgs. 243 243 247
Number UCG-80H-125-3N(A) UCG-80H-199-3N(A) UCG-80H-270-3N(A) UCG-80H-399-3N(A)	Lite 30 30 30 30	ers 03 03 03 03 03 79	Nat. kW Input 36.6 58.6 79.1 117.2	<b>at D</b> <b>22°C</b> 1164 1864 2517 3634	<b>56°C</b> 466 746 1007 1454	<b>78°C</b> 333 533 719 1038	Floor to Top of Vent mm. 1600 1645 1645 1746	Vent. Dia. mm. 127 152 152 203	Floor to Cold Water Inlet mm. 254 254 254 254	Floor to T&P Conn. mm. 1118 1118 1118 1118	Floor to Hot Water Outlet mm. 1194 1194 1194	Floor to Top of Heater mm. 1556 1556 1556 1556	Floor to Gas Conn. mm. 1416 1416 1416 1416	Depth mm. 762 762 762 762	<b>mm.</b> 718 718 718 718 718	Floor to Cold Water Inlet/Hot Water Outlet mm. 1391 1391 1391 1391	Conn. Dia. 38 38 38 38 38	<b>Conn.</b> <b>Dia.</b> 19 19 19 19	Valve Open 19 19 25 25	Shipping Weight   kgs.   243   243   243   247   247

For Propane Gas models change suffix "N" to "X". Example: UCG-100H-199-3X (UCG-100H-399 available in Natural Gas only). Natural gas models comply with the latest Ultra Low NOx requirements (14 ng/J or less). Amp Draw range = 1.0 to 1.8 amps.

(A) ASME - All models are available with ASME construction.

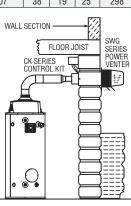
To order ASME construction add the (A) to the end of the model number.







		•			
	Model	2" PVC, ABS, or CPVC	3" PVC, ABS, or CPVC	4" PVC, ABS, or CPVC	TYPICAL APPLI
	UCG-80H-125-3(N,X)	20 ft.	50 ft.	75 ft.	termination only.
	UCG-80H-199-3(N,X)	20 ft.	50 ft.	75 ft.	Model Numbers
	UCG-100H-199-3(N,X)	20 ft.	50 ft.	75 ft.	UCG-80H-125/19
	UCG-80H-270-3(N,X)	20 ft.	50 ft.	75 ft.	UCG-100H-199/2
	UCG-100H-270-3(N,X)	20 ft.	50 ft.	75 ft.	UCG-80H-399,
	UCG-80H-399-3(N,X)	N/A	25 ft.	50 ft.	UCG-100H-399:
_	UCG-100H-399-3N	N/A	25 ft.	50 ft.	



#### APPLICATIONS

Power Vent Kits – for side wall on only. mbers Kit Number 125/199/270, 239-81764-00 H-199/270: -399, 239-81766-00



#### Optional Honeywell EnviraCOM<sup>™</sup> Alarm Module – Provides indication (contacts are closed) when an alarm is present via normally open contacts (rated for up to 24 VAC). Kit Number - 265-51961-00

#### Sample Specification

The water heater shall be a Bradford White model UCG-\_ with a rated storage capacity of not less than gallons/ liters, a minimum gas input of BTU/Hr., a minimum GPH/LPH at 100°F (56°C) temperature rise, a Thermal Efficiency Rating of \_. It shall be design certified by CSA International (formerly AGA and CGA) for 180°F (82°C) recovery of application, either with or without a separate storage tank. The tank shall be lined with Vitraglas® vitreous enamel and shall have a bolted hand hole cleanout. This water heater shall be equipped with stainless steel cold water inlet, Hydrojet® Sediment Reduction System. The heater shall be insulated with Non-CFC foam. This water heater shall be equipped with an ICON HD" ignition system, an ASME rated T&P relief valve and a premix combustion system. The water heater shall be factory assembled and tested. A digital LCD display shall be integrated into the front and be an adjustable electronic thermostat to any temperature up to 180°F. A recycling Energy Cut Off (E.C.O.) shuts off all gas in the event of an overheat condition. The entire installation shall be made in compliance with state and local codes and ordinances.

#### General

All gas water heaters are certified at 300 PSI test pressure (2068 kPa) and 150 PSI working pressure (1034 kPa). All models are design certified by CSA International (formerly AGA/CGA), to ANSI standard Z-21.10.3, for up to 180°F (82°C) application as an Automatic Storage Heater. As an Automatic Storage Heater, all models are complete, self-contained water heating systems. It needs no separate storage tank, pump, wiring or elaborate piping network. When equipped with a mixing valve, it can supply 180°F (82°C) sanitizing and lower temperature general purpose hot water simultaneously. These models can be used either as a single unit or in multiples connected in series or parallel (recommended).

Dimensions and specifications subject to change without notice in accordance with our policy of continuous product improvement.



For U.S. and Canada field service, contact your professional installer or local Bradford White sales representative. Sales 800-523-2931 • Fax 215-641-1670 / Technical Support 800-334-3393 • Fax 269-795-1089 • Warranty 800-531-2111 • Fax 269-795-1089 International: Telephone 215-641-9400 • Telefax 215-641-9750 / www.bradfordwhite.com

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