

## Light Duty Commercial Ultra Low NOx Power Direct Vent Gas Water Heater



Photo is of  
ULG2PDV50H503N

**FEATURING:**



**The FVIR Eco-Defender Safety System® Models Feature:**

- **Ultra Low NOx Burner with Primary and Secondary Air Distribution Devices**—Ensures proper air to gas ratio for reduction of NOx generated by the combustion process.
- **Closed Combustion Venting System**—Power Direct Vent closed combustion system utilizes external air for combustion and exhausts directly to the outside through a separate two-pipe system. The equivalent feet of intake venting cannot be greater than the equivalent feet of exhaust venting.
- **Bradford White ICON System™**—Intelligent gas control with spark to pilot ignition system eliminates the constant burning pilot. This results in savings of pilot gas during standby periods (120 VAC).
  - **Enhanced Performance**—Proprietary algorithms provide enhanced First Hour Rating and tighter temperature differential.
  - **Advanced Temperature Control System**—Microprocessor constantly monitors and controls burner operation to maintain consistent and accurate water temperature levels.
  - **Intelligent Diagnostics**—An exclusive green LED light prompts the installer during start-up and provides ten different diagnostic codes to assist in troubleshooting.
  - **Pilot On Indication**—Flashing green LED provides positive indication that pilot is on.
  - **Separate Immersed Thermowell**—High-strength advanced polymer composite thermowell provides isolation between electric temperature sensor and surrounding water. No need to drain the tank when removing gas valve.
- **Cast Aluminum Air Intake Boot**—A cast molded air intake boot design provides exceptional durability during installation and operation.
- **Flammable Vapor Sensor**—Electronic sensor prevents burner operation if flammable vapors are detected. The sensor will also prevent operation if there is ongoing flammable vapors burning inside the combustion chamber.
- **Factory-Installed Hydrojet® Total Performance System**—Sediment reducing device that also increases first hour rating of hot water while minimizing temperature build-up in tank.
- **Vitraglas® Lining**—An exclusively engineered enamel formula that provides superior tank protection from the highly corrosive effects of hot water. This formula (Vitraglas®) is fused to the steel surface by firing at a temperature of over 1600°F (871°C).
- **Optional Concentric Vent Kit Termination**—Concentric termination fitting provides for only one exit opening through a wall or roof. (Subtract 10ft. (3m) for intake pipe and 10ft. (3m) for exhaust pipe when calculating total vent length.)
- **Horizontal and Vertical Venting**—PVC, ABS, or CPVC (Maximum equivalent vent length for each pipe on reverse side).
- **Insulation System**—2" (51mm) Non-CFC foam insulation covers the sides and top of the tank, reducing heat loss. This results in less energy consumption, improved efficiencies, and jacket rigidity.
- **Water Connections**—3/4" (19mm) NPT factory-installed true dielectric fittings.
- **Side Connections**—3/4" (19mm) NPT tapings allow easy connections for space heating applications (Potable water only).
- **Factory-Installed Heat Traps**—Design incorporates a flexible disk that reduces heat loss in piping and eliminates the potential for noise generation.
- **Protective Magnesium Anode Rod.**
- **T&P Relief Valve**—Installed.
- **Low Restrictive Brass Drain Valve**—Durable tamper proof design.
- **Complies with the latest Ultra Low NOx requirement (10 ng/J NOx limit).**

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

For more information on warranty, please visit [www.bradfordwhite.com](http://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.

# Power Direct Vent Gas Water Heater

## Power Direct Vent Models

NATURAL GAS

Meet or exceed ASHRAE 90.1b (current standard) C.E.C. Listed  
78% Recovery Efficiency

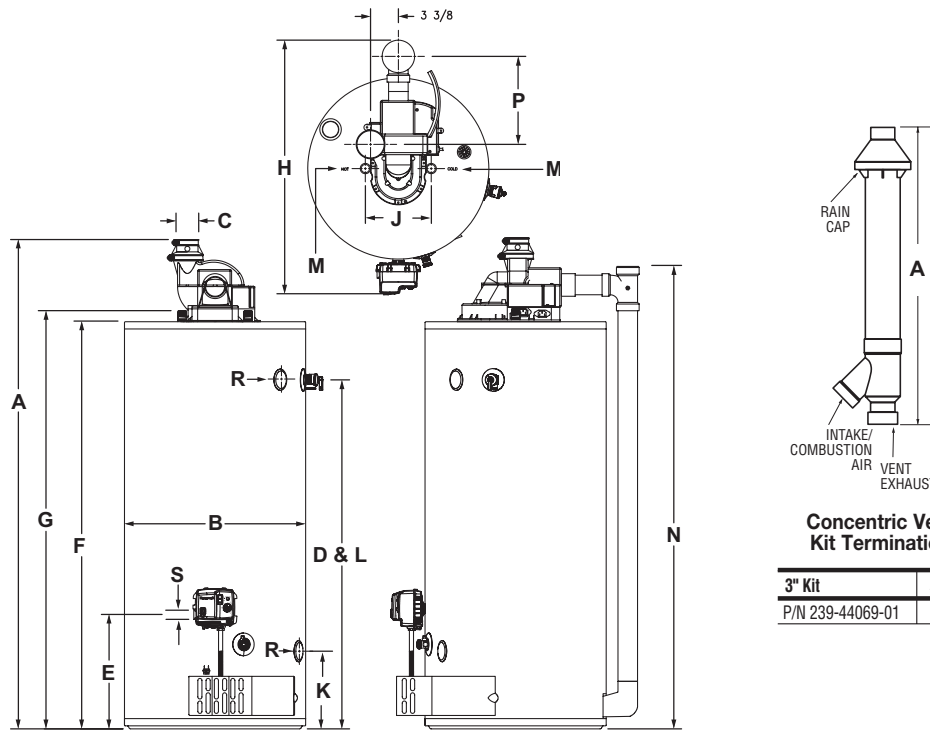
Model Number	Nominal Gal. Capacity		DOE Rated Storage Volume (Gal.)	BTU/Hr. Input	First Hour Rating (Gal.)	Uniform Energy Factor	Recovery at 100°F Rise*		Model Number	Nominal Liter Capacity	DOE Rated Storage Volume (Liters)	kW Input	First Hour Rating (Liters)	Uniform Energy Factor	Recovery at 56°C Rise*		
	U.S. Gal.	Imp. Gal.					U.S. GPH	Imp. GPH							Liters/ Hour		
ULG2PDV50H503N	48	40	46	50,000	82	0.68	48	40	ULG2PDV50H503N	182	172	14.7	311	0.68	182		
Model Number	A Floor to Exhaust Conn. in.	B Jacket Dia. in.	C Vent Size in.	D Floor to T&P Conn. in.	E Floor to Gas Conn. in.	F Floor to Top of Heater in.	G Floor to Water Conn. in.	H Depth in.	J C/L of Water Conn. in.	K Floor to Space Heating Inlet in.	L Floor to Space Heating Outlet in.	M Water Conn. NPT in.	N Floor to Air Intake in.	P C/L Distance From Intake to Exhaust in.	R Space Heating Conn. Size in.	S Gas Conn. Size in.	Approx. Shipping Weight lbs.
ULG2PDV50H503N	67 <sup>3/16</sup>	22	3 or 4	52 <sup>1/4</sup>	13 <sup>7/8</sup>	59 <sup>11/16</sup>	61 <sup>19/16</sup>	31 <sup>11/16</sup>	11	15 <sup>3/4</sup>	52 <sup>1/4</sup>	3/4	63 <sup>7/8</sup>	9 <sup>1/4</sup>	3/4	1/2	201
Model Number	A Floor to Exhaust Conn. mm.	B Jacket Dia. mm.	C Vent Size mm.	D Floor to T&P Conn. mm.	E Floor to Gas Conn. mm.	F Floor to Top of Heater mm.	G Floor to Water Conn. mm.	H Depth mm.	J C/L of Water Conn. mm.	K Floor to Space Heating Inlet mm.	L Floor to Space Heating Outlet mm.	M Water Conn. NPT mm.	N Floor to Air Intake mm.	P C/L Distance From Intake to Exhaust mm.	R Space Heating Conn. Size mm.	S Gas Conn. Size mm.	Approx. Shipping Weight kg.
ULG2PDV50H503N	1708	559	76 or 102	1327	352	1516	1573	805	279	400	1327	19	1622	235	19	13	91

Available in Natural Gas only. For 5 year models change suffix from "3" to "5".

\* Based on manufacturer's rated recovery efficiency.

110 VAC Required for Power Venting / 110 VAC, 60Hz., 3.1 Amperes.

Uniform Energy Factor and First Hour Rating is based on the latest AHRI directory listings.



ULG2PDV50H503N	3" Vent Pipe	4" Vent Pipe
Max. Intake Length	60 ft.	100 ft.
Max. Exhaust Length	60 ft.	100 ft.
Min. Vent Length	7 ft.	7 ft.
Number of 90° Elbows	1 2 3	95 ft. 90 ft. 85 ft.

Subtract 5ft. for each additional 90° elbow.

### Concentric Vent Kit Termination

3" Kit	A (in.)
P/N 239-44069-01	36 <sup>1/4</sup>

### General:

#### Meets NAECA Requirements.

All gas water heaters are certified at 300 PSI test pressure (2068 kPa) and 150 PSI working pressure (1034 kPa). All water connections are 3/4" NPT (19mm). All gas connections are 1/2" (13mm). All models design-certified by CSA International (formerly AGA/CGA), to meet ANSI standard Z21.10.1 and peak performance rated.

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

**Suitable for Water (Potable) Heating and Space Heating.** Toxic chemicals, such as those used for boiler treatment, shall NEVER be introduced into this system. This unit may NEVER be connected to any existing heating system or component(s) previously used with a non-potable water heating appliance.

— BRADFORD WHITE IS —



For field service, contact your professional installer or local Bradford White sales representative.

Sales 800-523-2931 ■ Fax 215-641-1612

Technical Support 800-334-3393 ■ Email [techserv@bradfordwhite.com](mailto:techserv@bradfordwhite.com)

Warranty 800-531-2111 ■ Email [warranty@bradfordwhite.com](mailto:warranty@bradfordwhite.com)

International: Telephone 1-215-641-9400 ■ Email [international@bradfordwhite.com](mailto:international@bradfordwhite.com) / [www.bradfordwhite.com](http://www.bradfordwhite.com)

**Built to be the Best™**