# BRADFORD WHITE

## Residential Ultra Low NOx Power Direct Vent Gas Water Heater



- ENERGY STAR<sup>®</sup> Qualified—Meet or exceed requirements for ENERGY STAR<sup>®</sup> per the latest ENERGY STAR<sup>®</sup> criteria revision, as well as most utility rebate programs.
- 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<sup>®</sup>—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.
  - 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<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).
- 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 extend water heater life and simplify water line connections.
- 3/4" (19mm) NPT Side Connections—(URG2PDV50H6N 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).



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URG2PDV50H6N

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FEATURING:

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#### 6 or 10-Year Limited Tank Warranties / 6 or 10-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 OF 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; 6,684,821; 7,344,419; 7,866,168; 7,270,087; 7,007,748; 5,596,952; 6,142,216; 7,699,026; 5,341,770; 7,337,517; 7,665,211; 7,665,210; 7,063,132; 7,063,133; 7,559,293; 7,900,589; 5,943,984; 8,082,888; 5,988,117; 7,521,238; 7,650,859; 5,761,379; 7,409,925; 5,277,171; 8,146,772; 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. Defender Safety System\*, Vitraglas\* and Hydrojet\* are registered trademarks of Bradford White Corporation.

## Residential Power Direct Vent Gas Water Heater

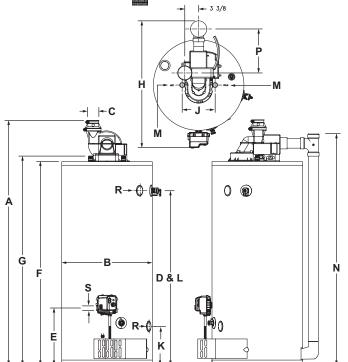
### **Power Direct Vent Models**

NATURAL GAS

Model Nominal Recovery at 90°F Rise\* Model Nominal Recovery at 50°C Rise\* DOE DOE Number Gal. Number Liter Capacity Rated First Capacity Rated First Uniform Uniform Storage Hour Storage Hour Volume (Gal.) U.S. Imp Gal. Gal. Ratin Energy Volume Input kW Rating Energy Factor Liters/ U.S. GPH lmp. GPH Input BTU/Hr (Gal. Factor (Liters) (Liters) Hour ★ URG2PDV40S6N 40 40,000 ★ URG2PDV40S6N 11.7 284 163 33 38 75 0.70 43 36 151 144 0.70 ★ URG2PDV50S6N 50 42 48 40,000 80 0.68 43 36 ★ URG2PDV50S6N 189 182 11.7 303 0.68 163 ★ URG2PDV50H6N 48 40 46 50,000 82 0.68 64 45 ★ URG2PDV50H6N 182 174 14.7 311 0.68 242 C D G М Approx. Shipping A F F н Ν Model Floor to Jacket Vent Floor to Floor to Floor to Floor to Depth C/Ľ of Floor to Floor to Water Floor to C/L Distance Space Gas Number Exhaust Dia. Size T&P Gas Top of Water Wate Space Space Conn Air from Intake Heating Conn Weight Conn. Conn. Conn. Heater Conn. Conn. Heating Inlet Heating Outlet NPT Intake to Exhaust Conn. Size Size in. in in in. in. in. in. in in. in. in. in. in. in. lbs in in. ★ URG2PDV40S6N 597/8 22 2 or 3 42 %16 13 15/16 49 % 16 50 15/16 325/16 8 N/A N/A 3/4 597/16 101/2 3/4 170 1/2 ★ URG2PDV50S6N 607/8 24 2 or 3 431/16 13 15/16 50 º/16 52 345/16 8 N/A N/A 3/1 60 7/16 111/2 3/2 1/2 196 ★ URG2PDV50H6N 69<sup>1</sup>/<sub>16</sub> 22 3 or 4 52 5/1 13 15/16 599/16 503/16 307/16 1313/10 52 5/16 3/4 69 <sup>3</sup>/16 87/8 3/4 1/2 208 11 D G Н Ν R Approx. А B C F K S Model Shipping Weight Vent Floor to Jacket Floor to Floor to Floor to Floor to Depth C/L of Floor to Floor to Water Floor to C/L Distance Space Gas Number Fxhaust Dia. Size T&P Gas Ton of Water Water Snace Snace Conn Air from Intake Heating Conn Conn. Size Heating Inlet Heating Outlet Conn. Conn. Conn. Conn Conn. NPT Intake to Exhaust Size Heater mm mm. mm kg. mm mm mm ★ URG2PDV40S6N 1521 559 51 or 76 1081 354 1259 1294 821 203 N/A N/A 19 1510 267 19 13 77 ★ URG2PDV50S6N 1546 610 1094 354 1284 1321 872 203 N/A N/A 19 1535 292 19 13 89 51 or 76 ★ URG2PDV50H6N 1754 559 76 or 102 1329 354 1513 1275 773 279 351 1329 19 1757 225 19 13 94

Available in Natural Gas only. For 10 year model, change suffix "6" to "10". \*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.

★ = ENERGY STAR® Qualified.



RAIN CAP	
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INTAKE COMBUSTION AIF	l l

2" Vent Pipe		URG2PDV40S6N URG2PDV50S6N	
Max. Intake Lengt	h	35 ft.	
Max. Exhaust Length		35 ft.	
Min. Vent Length		7 ft.	
Number	1	30 ft.	
of	2	25 ft.	
90° Elbows	3	20 ft.	
		URG2PDV40S6N	
3" Vent Pipe			URG2PDV50H6N
3" Vent Pipe Max. Intake Lengt	h		URG2PDV50H6N 60 ft.
· · · · ·		URG2PDV50S6N	
Max. Intake Lengt		URG2PDV50S6N 85 ft.	60 ft.
Max. Intake Lengt Max. Exhaust Leng		URG2PDV50S6N 85 ft. 85 ft.	60 ft. 60 ft.
Max. Intake Lengt Max. Exhaust Leng Min. Vent Length	gth	URG2PDV50S6N 85 ft. 85 ft. 7 ft.	60 ft. 60 ft. 7 ft.
Max. Intake Lengt Max. Exhaust Leng Min. Vent Length Number	gth 1	URG2PDV50S6N 85 ft. 85 ft. 7 ft. 80 ft.	60 ft. 60 ft. 7 ft. 55 ft.

Meet or exceed ASHRAE 90.1b (current standard) C.E.C. Listed

78% Recovery Efficiency

Concentric Vent Kit Termination

2" Kit	A (in.)
P/N 239-44069-02	291/4
3" Kit	A (in.)

4" Vent Pipe		URG2PDV50H6N
Max. Intake Lengtl	1	100 ft.
Max. Exhaust Length		100 ft.
Min. Vent Length		7 ft.
Number	1	95 ft.
of	2	90 ft.
90°	3	85 ft.

Subtract 5ft. (1.5m) for each additional 90° elbow.

#### General:

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 Z-21.10.1 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 -



Sales: 800-523-2931 = Fax 215-641-1612 24/7 Technical Support: 800-334-3393 = Email techserv@bradfordwhite.com