

Residential eF Series® Power Direct Vent Gas Water Heater



Photo is of
RC2PDV50H6N

FEATURING:

BRADFORD WHITE
ICON
System™



The eF Series® Power Direct Vent Model Features:

- **ENERGY STAR® Qualified**—Meets or exceeds requirements for ENERGY STAR® per the latest ENERGY STAR® criteria revision, as well as most utility rebate programs.
- **Vertical, Dual-pass Heat Exchanger System**—Highly efficient, helical-finned 5" (127mm) primary heat exchanger tube and three, stainless steel baffled, 2" (51mm) secondary heat exchanger tubes.
 - Vertical design eliminates corrosion protection challenges of condensing water heaters that utilize less durable heat exchanger designs.
- **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.
- **Closed Combustion Venting System**—Power Direct Vent models are ideal for installations which lack sufficient air for combustion, such as new construction homes or additions which are tightly insulated. These models use a twin pipe system where combustion air is drawn from outside the building in one pipe, and combustion products are expelled to the outside in another pipe.
- **Cast Aluminum Air Intake Boot**—A cast molded air intake boot design provides exceptional durability during installation and operation.
- **Flexible Venting**—The eF Series® can be installed as a power direct vent or power vent. If power direct vent, they can be balanced or unbalanced and terminate on different walls or pressure zones.
 - **Horizontal and Vertical Venting**—PVC, ABS, or CPVC. The equivalent feet of intake venting cannot be greater than the equivalent feet of exhaust venting.
 - **Optional Concentric Vent Kit Termination**—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.)
- **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).
- **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.
- **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.
- **Two Protective Anode Rods.**
- **T&P Relief Valve**—Installed.
- **Low Restrictive Brass Drain Valve**—Durable tamper proof design.
- **NOx Emissions**—Less than 40 ng/J.

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 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; 6,684,821; 7,334,419; 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; 7,621,238; 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 eF Series® Power Direct Vent Gas Water Heater

eF Series® Power Direct Vent Model

NATURAL GAS AND LIQUID PROPANE MODELS

Model Number	Nominal Gal. Capacity		DOE Rated Storage Volume (Gal.)	BTU/Hr. Input	LP BTU/Hr. Input	First Hour Rating (Gal.)	Uniform Energy Factor	Recovery at 90°F Rise*				Model Number	Nominal Liter Capacity	DOE Rated Storage Volume (Liters)	kW Input	LP kW Input	First Hour Rating (Liters)	Uniform Energy Factor	Recovery at 50°C Rise*	
	U.S. Gal.	Imp. Gal.						U.S. GPH	Imp. GPH	LP U.S. GPH	LP Imp. GPH								U.S. Liters/ Hour	LP Liters/ Hour
★ RC2PDV50H6N	50	42	48	76,000	76,000	125	0.80	89	77	93	77	★ RC2PDV50H6N	190	185	22.0	22.0	473	0.80	337	352
Model Number	A Floor to Vent 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 Intake Conn. in.	R Space Heating Conn. Size in.	S Gas Conn. Size in.	Approx. Shipping Weight lbs.				
★ RC2PDV50H6N	67 ⁷ / ₁₆	24	2, 3, and 4	46 ³ / ₈	14 ¹ / ₈	56 ¹ / ₄	57	33 ³ / ₄	8	15 ⁵ / ₈	46 ³ / ₈	¾	65 ⁵ / ₈	¾	½	290				
Model Number	A Floor to Vent 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 Intake Conn. mm.	R Space Heating Conn. Size mm.	S Gas Conn. Size mm.	Approx. Shipping Weight kg.				
★ RC2PDV50H6N	1713	610	51, 76, and 102	1178	359	1429	1448	857	203	397	1178	19	1667	19	13	131				

Propane models feature a Titanium Stabilized Stainless Steel propane burner. For Propane (LP) models change suffix "N" to "X".
For 10 year model, change suffix "6" to "10".

* Based on manufacturer's rated recovery efficiency.

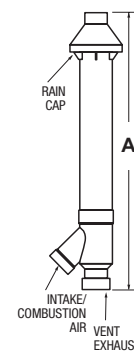
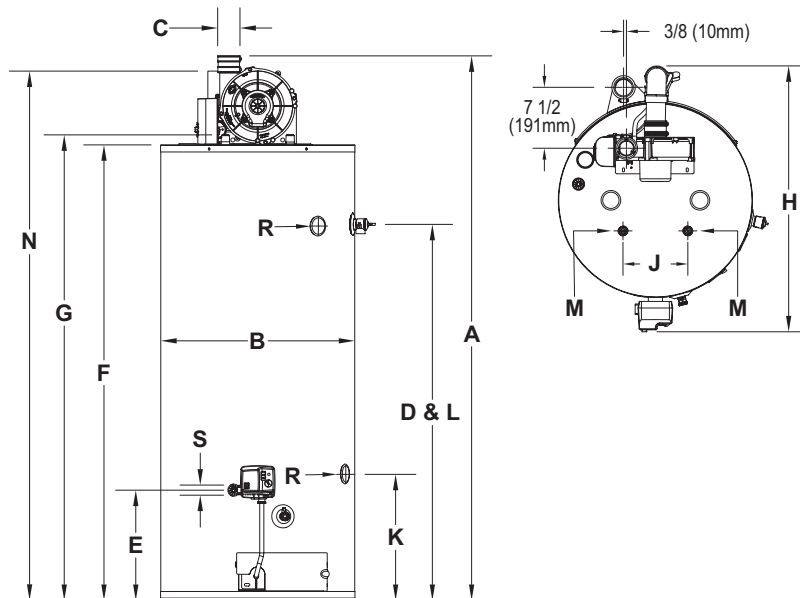
110 VAC Required for Power Venting / 110 VAC, 60Hz., 3.1 Amperes.

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

★ = ENERGY STAR® Qualified.



Optional Condensate Neutralizer Kit: p/n A2123601.



Concentric Vent Kit Termination

2" Kit	A (in.)
P/N 239-44069-02	29 1/4
3" Kit	A (in.)
P/N 239-44069-01	36 1/4
51mm Kit	A (mm)
P/N 239-44069-02	743
76mm Kit	A (mm)
P/N 239-44069-01	921

RC2PDV50H6N	2" Vent Pipe	3" Vent Pipe	4" Vent Pipe
Max. Intake Length	50 ft.	120 ft.	180 ft.
Min. Exhaust Length	†50 ft.	†120 ft.	†180 ft.
Min. Equivalent Length	7 ft.	15 ft.	15 ft.
Number of 90° Elbows	1 45 ft. 2 40 ft. 3 35 ft.	1 115 ft. 2 110 ft. 3 105 ft.	1 175 ft. 2 170 ft. 3 165 ft.
RC2PDV50H6N	51mm Vent Pipe	76mm Vent Pipe	102mm Vent Pipe
Max. Intake Length	15.2m	36.6m	54.9m
Min. Exhaust Length	†15.2m	†36.6m	†54.9m
Min. Equivalent Length	2.1m	4.6m	4.6m
Number of 90° Elbows	1 13.7m 2 12.2m 3 10.7m	1 35.1m 2 33.6m 3 32.0m	1 53.3m 2 51.9m 3 50.3m

Subtract 5 ft. (1.5m) for each additional 90° elbow.
† For high altitude installations, consult the installation instructions.

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). Design-certified by CSA International (formerly AGA/CGA), to meet ANSI standard Z21.10.3 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 —

**AMERICAN
STRONG**

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24/7 Technical Support: 800-334-3393 ■ Email techserv@bradfordwhite.com

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