

Specifications for Bradford White Water Heaters

eF XT™ Ultra High Efficiency Commercial Gas Water Heater

The water heater shall be a Bradford White model number CGW-____H-____-N eF Series® eF XT™ Ultra High Efficiency gas water heater.

General: The domestic hot water heater model number CGW-____H-____-N shall have a maximum input rating of _____BTU (kW)/hr. and a recovery rate of _____GPH at a 100 °F rise. The water heater shall have a thermal efficiency of 97%. The water heater shall be capable of burner modulation firing with a turn down ratio of up to 10 to 1. The unit shall comply with the latest ultra-low NOx requirements (14 ng/J NOx limit for Natural Gas & applicable requirements for Liquid Propane). The water heater shall have a ____-year warranty as outlined within the written warranty. Fully illustrated instruction manual to be included.

Design: The water heater is design certified by CSA International to ANSI standard Z21.10.3 for up to 185 °F as an automatic storage water heater. The water heater is certified at 300 PSI test pressure and 150 PSI working pressure.

Components: All internal surfaces of the tank exposed to water shall be glass-lined with Vitraglas® vitreous enamel with Microban® antimicrobial technology that has been fused to the steel by firing at a temperature range of 1,600 °F. The tank shall have two anode rods. The water heater shall be equipped with one Hydrojet® Total Performance System dip tube. The water heater shall be insulated with non-CFC polyurethane foam. The water heater will be equipped with an ASME rated T&P relief valve and a low restrictive brass drain valve. The unit shall have a bolted hand hole cleanout. The water heater shall be equipped with water connections on the front and top of the water heater for installation flexibility. The water heater shall include built-in flush ports for cleaning of the heat engine. The water heater shall include a variable speed circulator pump with a stainless steel volute.

Combustion and Venting: The water heater shall have a stainless steel heat engine mounted on top of the storage tank. The heat engine shall contain a water tube heat exchanger designed to maximize thermal efficiency. The heat exchanger shall be fully condensing, with condensate draining at the bottom of the heat engine. The water heater shall have a fully contained condensate trap, designed to allow safe and effective draining of condensate from the heat engine and venting. The water heater shall have a premix modulating power burner with a self-compensating negative regulation system which automatically increases or decreases fuel flow when a change in combustion is detected, providing optimum combustion, efficiency, and high-altitude compatibility (10,000 ft above sea level). The water heater shall be field convertible from Natural Gas to Liquid Propane,

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with the use of an included conversion kit. The water heater shall have a single pressure switch. The water heater shall have a top-located exhaust. The water heater shall allow venting of 2", 3", 4", or 6" diameter PVC (UL1738, ULC S636), CPVC (UL1738, ULC S636), Polypropylene (UL1738, ULC S636), Stainless Steel (UL1738, ULC S636), or ABS (ASTM D2661) vent pipe, in addition to flexible polypropylene venting. The water heater can be common vented with up to eight of the same model.

The water heater shall be approved to power vent with (2"/3"/4"/6") _____" diameter PVC pipe for a total of up to (70 ft./160 ft./200 ft./200 ft.) _____ equivalent feet of piping.

The water heater shall be approved to power direct vent with (2"/3"/4"/6") _____" diameter PVC pipe for a total of up to (70 ft. per vent run/160 ft. per vent run/200 ft. per vent run/200 ft. per vent run) _____ equivalent feet of piping per vent run.

The water heater shall be approved to power vent with (2"/3"/4"/6") _____" diameter flexible polypropylene (PP) pipe for a total of up to (50 ft./100 ft./100 ft./100 ft.) _____ equivalent feet of piping.

Controls: The water heater shall have an ICON HD® intelligent electronic control module that combines temperature control, diagnostic codes, system ignition functions and a color LCD display on the front of the water heater. The control shall utilize Dynamic Load Management™, allowing the user to schedule temperature setpoints and accessories. The temperature control shall be adjustable up to 185 °F and shall have the ability to display °F or °C. The display shall be readable in English, Spanish, and French-Canadian languages. The controller shall contain a quick setup guide upon first time setup of the water heater, a system status menu which allows real-time display of temperature sensor readings, flame currents, and blower speeds, a Pro Tools menu that allows real-time component diagnostic testing; additionally, fault codes shall be displayed with diagnostic information. The water heater shall have a recycling Energy Cut Off (ECO) that shuts off all gas in the event of an overheat condition.