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Rheem RTEX-24

Rheem RTEX-24 24kW 240V Electric Tankless Water Heater User Manual

Model: RTEX-24 | Brand: Rheem

1. PRODUCT OVERVIEW

The Rheem Professional Classic Tankless Electric RTEX-24 240V water heater is designed to provide continuous hot water on demand. This unit is suitable for both single point-of-use and multiple applications, offering a flow rate of up to 5.9 Gallons Per Minute (GPM). Its compact design is significantly smaller than traditional electric water heaters, optimizing space. The energy-efficient operation eliminates standby heat loss when installed near the point-of-use, contributing to energy savings.

Key Features:

- **ON/OFF Dial Control:** Features an adjustable digital temperature display for precise temperature setting.
- **Self-Modulating Power Control:** Ensures efficient energy usage by adjusting power based on demand.
- **High Flow Rate:** Provides up to 5.9 GPM for the RTEX-24 model, ensuring ample hot water.
- **Easy Connections:** Equipped with bottom 3/4" NPT water connections for straightforward installation.
- **On-Demand Hot Water:** Delivers consistent and continuous hot water as needed.



Figure 1: Front view of the Rheem RTEX-24 Tankless Water Heater, showing the digital display and dial control.

2. SAFETY INFORMATION

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov. Always adhere to local codes and regulations for electrical and plumbing installations. Installation should only be performed by a qualified professional to ensure safety and proper operation. Disconnect power before servicing the unit. Do not operate if any part of the unit is damaged or malfunctioning.

3. SETUP & INSTALLATION

Electrical Requirements:

The RTEX-24 model requires a 240V electrical supply. A 200 Amp household service is recommended. The unit requires a maximum draw of 100 Amps and needs three 40 Amp double pole circuit breakers. It is crucial to verify that your electrical panel has sufficient space and capacity for these requirements. Professional installation by a certified electrician is strongly recommended.

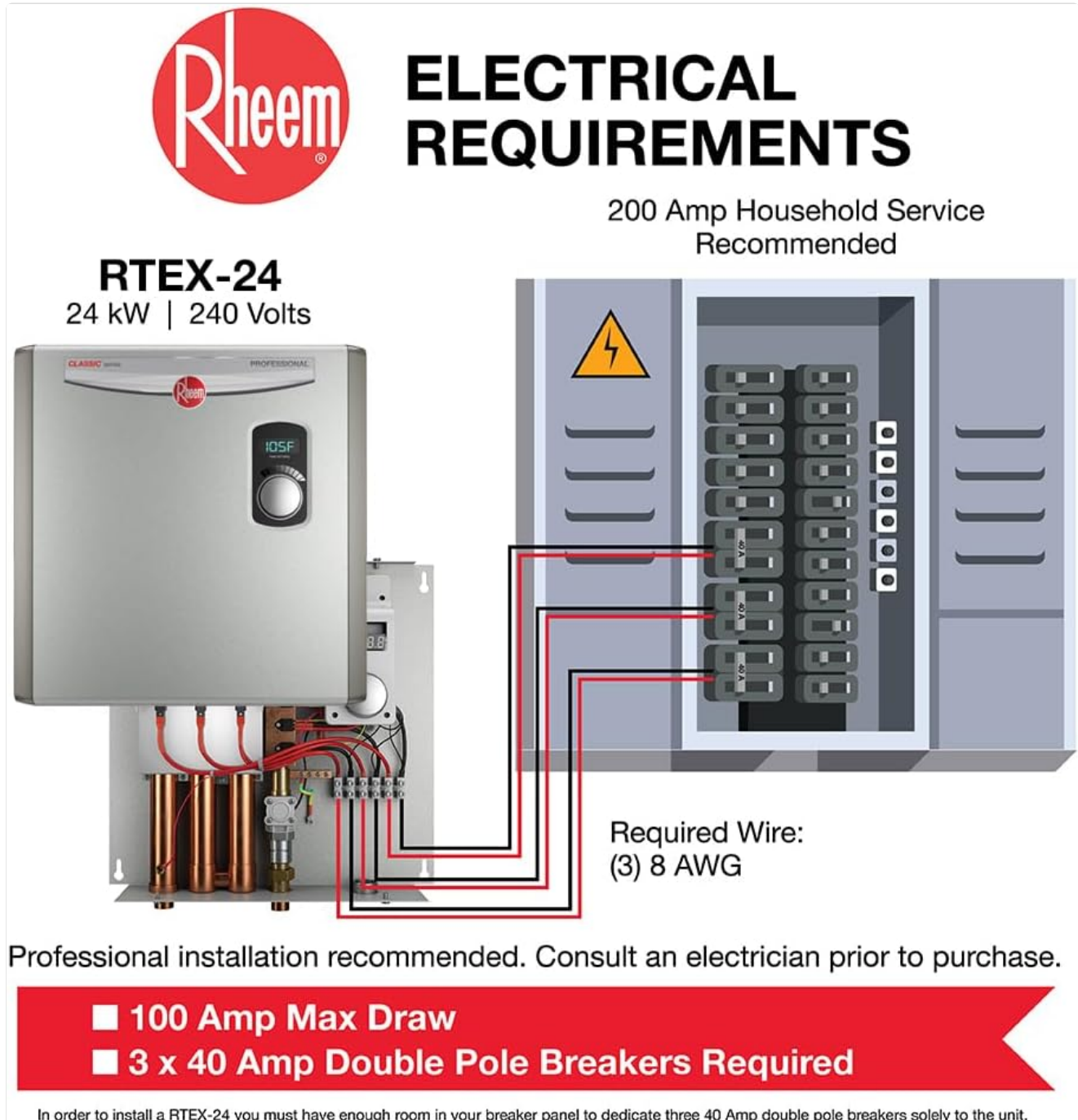


Figure 2: Diagram illustrating the electrical wiring requirements for the RTEX-24, including recommended amperage and breaker setup.

Water Connections:

The unit features bottom 3/4" NPT water connections. Ensure proper plumbing connections are made according to local codes. It is advisable to install shut-off valves on both the hot and cold water lines for ease of maintenance.



Figure 3: The RTEX-24 unit mounted on a wall, demonstrating its compact size and typical installation location.

Mounting:

The RTEX-24 is designed for wall mounting. Select a suitable location that is easily accessible for maintenance and adheres to all clearance requirements. Ensure the mounting surface is capable of supporting the unit's weight.

4. OPERATING INSTRUCTIONS

Temperature Control:

The unit is equipped with an ON/OFF dial control and an adjustable digital temperature display. To set the desired water temperature, rotate the dial. The digital display will show the current temperature setting. The self-modulating power control automatically adjusts the heating elements to maintain the set temperature efficiently.



Figure 4: Angled view highlighting the digital temperature display and control dial on the RTEX-24 unit.

First Use:

Before initial operation, ensure all plumbing connections are secure and the unit is filled with water. Open a hot water faucet to purge air from the system. Once water flows steadily, close the faucet and then turn on the electrical power to the unit. Set your desired temperature using the dial control.

5. USAGE GUIDELINES AND SELECTION GUIDE

The performance of your tankless water heater, specifically its flow rate (GPM), is influenced by the incoming water temperature. Colder inlet water temperatures will result in a lower maximum achievable flow rate at a given output temperature. Refer to the selection guide below to understand the approximate usage based on your region's inlet water temperature and the desired flow rate.

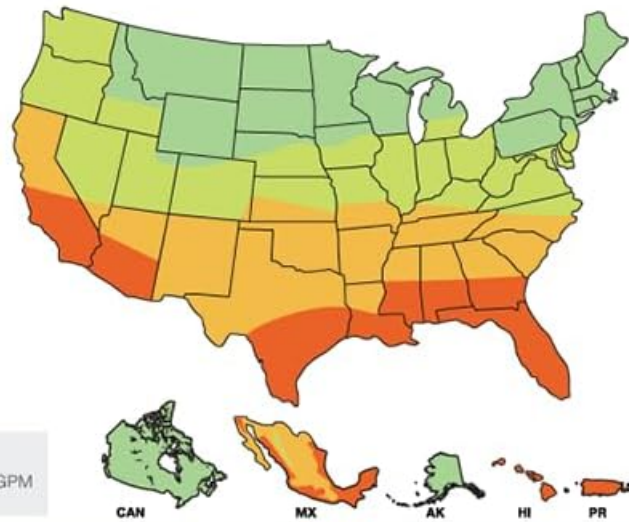
SELECTION GUIDE

CONSIDER YOUR LOCATION AND SEASONAL CHANGES

Note the color of your location on the map to the right. It corresponds to the temperature of water entering your water heater (inlet temp), in the chart below.

CONFIRM THIS MEETS YOUR NEEDS

Use the color of your location to find the gallons per minute (GPM) and corresponding Approx. Usage in the chart below.



Usage Key



Faucet:
Flow rate of 0.5 GPM



Shower:
Flow rate of 1.5 GPM

Model	Inlet Temp. 37-47°F		Inlet Temp. 47-57°F		Inlet Temp. 57-62°F		Inlet Temp. 62-77°F	
	Max GPM	Approx. Usage	Max GPM	Approx. Usage	Max GPM	Approx. Usage	Max GPM	Approx. Usage
RTEX-04	Not Recommended		Not Recommended		0.6	1 faucet	0.9	1 faucet
RTEX-06	0.7	1 faucet	0.9	1 faucet	1.0	1 faucet, 1 shower	1.5	1 shower
RTEX-08	0.94	1 faucet	1.14	1 faucet, 1 shower	1.27	1 faucet, 1 shower	1.95	1 shower
RTEX-11	1.30	1 faucet, 1 shower	1.57	1 shower	1.75	1 shower	2.68	1 shower, 1 faucet
RTEX-13	1.53	1 shower	1.85	1 shower	2.06	1 shower, 1 faucet	3.17	1 shower, 1 shower
RTEX-18	2.1	1 shower, 1 faucet	2.6	1 shower, 1 faucet	2.9	1 shower, 1 faucet	4.4	1 shower, 1 shower, 1 faucet
RTEX-24	2.8	1 shower, 1 faucet	3.4	1 shower, 1 shower	3.8	1 shower, 1 shower	5.9	1 shower, 1 shower, 1 faucet
RTEX-27	3.2	1 shower, 1 shower	3.8	1 shower, 1 shower	4.3	1 shower, 1 shower	6.6	1 shower, 1 shower, 1 faucet
RTEX-36	4.2	1 shower, 1 shower, 1 faucet	5.1	1 shower, 1 shower, 1 shower	5.7	1 shower, 1 shower, 1 shower	8.8	1 shower, 1 shower, 1 shower, 1 faucet

NOTE: The number of faucets and/or showers this model will serve based on a temperature setting of 105°F. Higher temperature settings will reduce flow rates.

Figure 5: Selection guide map of the USA and a corresponding table indicating maximum GPM and approximate usage (faucets/showers) based on inlet water temperature ranges for various RTEX models. The RTEX-24 is highlighted.

For the RTEX-24, with an inlet temperature of 62-77°F, it can provide up to 5.9 GPM, supporting multiple showers

and faucets simultaneously. In colder climates (e.g., 37-47°F inlet temp), the maximum GPM for the RTEX-24 is 2.8, suitable for one shower or two faucets. Adjusting the temperature setting to a higher value will reduce the effective flow rates.

6. MAINTENANCE

Regular maintenance is essential to ensure the longevity and efficient operation of your tankless water heater. It is recommended to perform annual flushing of the unit to remove mineral buildup, especially in areas with hard water. Consult the full user manual for detailed flushing procedures and other maintenance guidelines.

- **Annual Flushing:** To prevent scale buildup and maintain efficiency.
- **Inspect Connections:** Periodically check all water and electrical connections for leaks or signs of wear.
- **Clean Aerators:** Faucet aerators and showerheads should be cleaned regularly to ensure optimal flow.

7. TROUBLESHOOTING

If you experience issues with your RTEX-24 unit, refer to the following common troubleshooting steps. For more complex problems, contact a qualified technician or Rheem customer support.

Problem	Possible Cause	Solution
No hot water	No power; water flow too low; unit error code	Check circuit breakers; ensure minimum flow rate is met; consult error codes in manual.
Inconsistent temperature	Fluctuating water pressure; mineral buildup; incorrect temperature setting	Check water pressure; perform unit flush; adjust temperature setting.
Low hot water flow	Clogged aerators/showerheads; mineral buildup in unit; undersized unit for demand	Clean aerators/showerheads; flush unit; review selection guide for capacity.

For a comprehensive troubleshooting guide, please refer to the official User Manual.

8. SPECIFICATIONS

Specification	Value
Brand	Rheem
Model Number	RTEX-24
Product Dimensions	17.63"W x 18.25"H x 3.5"D
Color	Gray
Wattage	24 KW
Voltage	240 Volts
Maximum Flow Rate	5.9 Gallons Per Minute
Heat Output	24 Kilowatts
Efficiency	99.8% Energy efficient
Maximum Operating Pressure	150 Pound per Square Inch
Mounting Type	Wall
Item Weight	17.8 pounds



Figure 6: Dimensions of the Rheem RTEX-24 Tankless Water Heater.

9. WARRANTY & SUPPORT

For detailed warranty information, please refer to the official Warranty document provided by Rheem. Keep your proof of purchase for warranty claims.

- [Download Warranty \(PDF\)](#)
- [Download User Manual \(PDF\)](#)

For technical support, service, or parts, please contact Rheem customer service. Contact information can typically

be found in the full user manual or on the official Rheem website.